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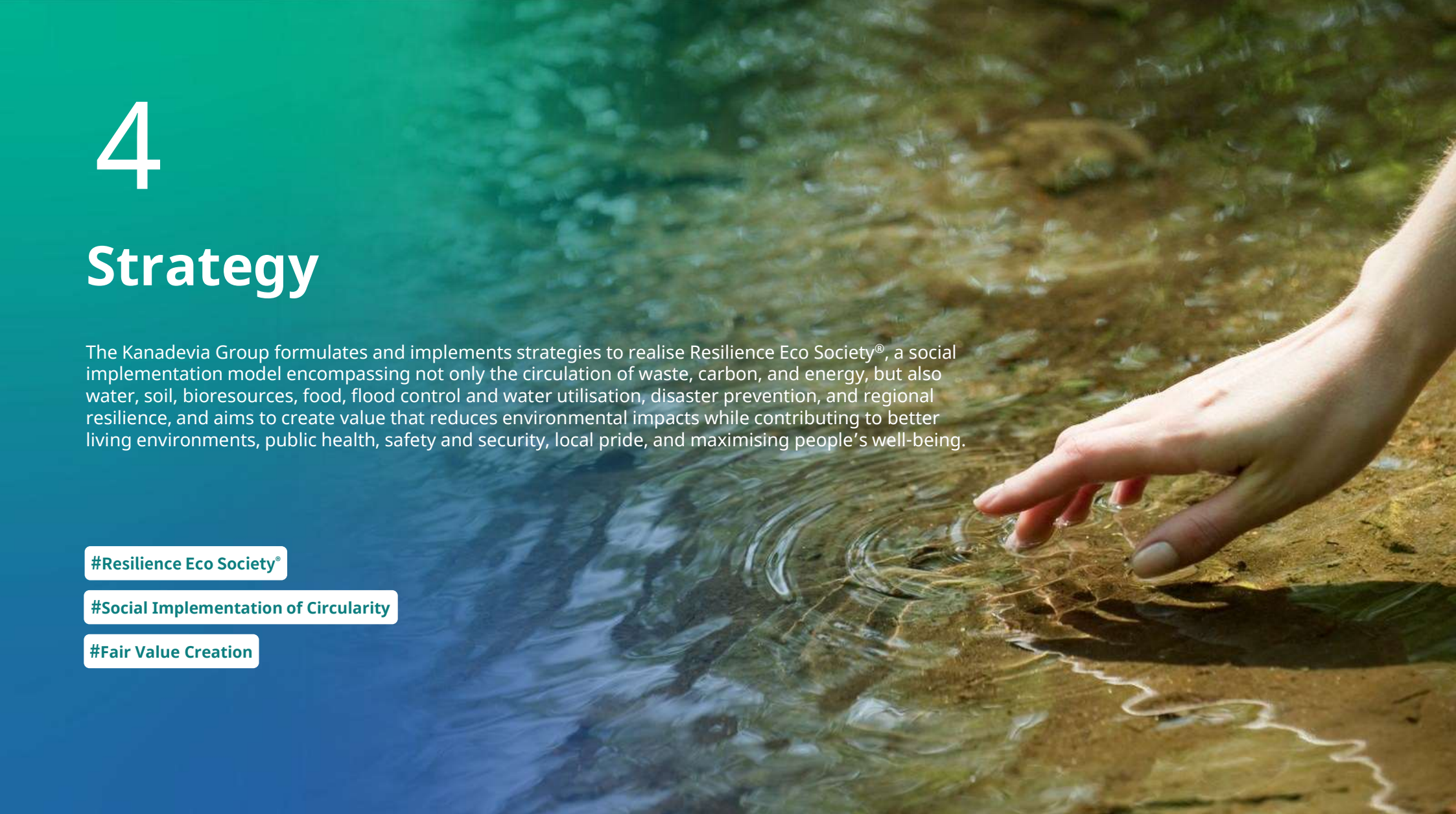
Strategy

The Kanadevia Group formulates and implements strategies to realise Resilience Eco Society®, a social implementation model encompassing not only the circulation of waste, carbon, and energy, but also water, soil, bioresources, food, flood control and water utilisation, disaster prevention, and regional resilience, and aims to create value that reduces environmental impacts while contributing to better living environments, public health, safety and security, local pride, and maximising people's well-being.

#Resilience Eco Society®

#Social Implementation of Circularity

#Fair Value Creation



4.1 Overview of the Integrated Strategy

From the Value Creation Framework in Chapter 2 to Strategy

Chapter 2 presented the Kanadevia Group's Sustainable Vision, Value Creation Framework, Seven Pillars of Success, and The Four Sustainability Principles. These concepts connect issues related to Climate, Nature, and People & Society not merely with individual environmental responses or risk management, but with value creation through business.

In this chapter, we translate the Value Creation Framework into strategy. We assess dependencies, impacts, risks, and opportunities related to Climate, Nature, and People & Society and show their relationships with the Group's businesses, technologies, regions and customers, supply chains, people and organisation, financial impacts, and transition plans.

The Group aims to do more than reduce environmental impacts. It seeks to implement cycles of waste, water, carbon, energy, biological resources, soil, food, and other resources as businesses within local communities, creating environmental value, social value, and corporate value simultaneously. The strategic model at the core of this approach is Resilience Eco Society®.

Resilience Eco Society® as a Strategic Model

Resilience Eco Society® is both the social vision that the Kanadevia Group aims to realise towards 2050 and a value creation model at the centre of its business strategy. Rather than simply treating waste and wastewater, the model circulates the carbon, heat, energy, metals, minerals, water, phosphorus, nitrogen, organic matter, and other resources they contain and converts them into regional energy, materials, water, fertiliser, soil, food, and other forms of value. Realising this model requires more than the provision of individual technologies. It requires commercialisation as social infrastructure that can operate stably over the long term, taking into account regional resource characteristics, infrastructure, institutions, finances, resident needs, and industrial structures. Resilience Eco Society® is also supported by people, supply chains, trust with local communities, and co-creation with customers and users, municipalities, and business partners. By embedding safety, quality, human rights, fair transactions, accountability, and dialogue with local communities into business operations, the Group seeks to create environmental value while improving regional resilience and people's well-being.

Two Strategic Axes

The strategic axes that constitute Resilience Eco Society® can be grouped into two broad categories, drawing on the “butterfly diagram” proposed by the Ellen MacArthur Foundation to visualise resource flows in a circular economy (**Figure 4-1**).

The first axis is a cycle that appropriately treats waste while converting it into electricity, heat, fuels, resources, and materials (technical cycle).

By combining Waste to Energy, Waste to X, CCUS (Carbon Capture, Utilisation, and Storage)[65], methanation, hydrogen and methane production, heat supply, recovery of metals and minerals, resource recovery, and other technologies, the Kanadevia Group can contribute to decarbonisation, resource circulation, stable energy supply, and stronger industrial competitiveness in metropolitan areas, industrial clusters, port areas, and similar locations.

The second axis is bio-circularity: the circulation of water, soil, biological resources, and food. Within the Group, this concept generally refers to the circulation of biological resources generated within local communities. It connects flood control, water utilisation, water treatment, wastewater treatment, sludge resource recovery, phosphorus and nitrogen recovery, biogas, organic fertiliser, agriculture, and food (biological cycle). This cycle supports regional foundations of community life, disaster prevention, the conservation of natural capital, and the foundations of food production. Resources obtained from sewage and wastewater treatment, food residues, agricultural residues, and biomass can also be connected to energy, fertiliser, soil improvement, and reclaimed-water use, thereby supporting regional water-soil-food cycles.

The strategies for water and for people and society are not presented as fully developed frameworks at this time. In this fiscal year, the Group positions them as important areas constituting Resilience Eco Society® and will further develop data acquisition, evaluation methods, metrics, and business models from the next fiscal year onward.

Perspectives on People & Society

Implementing Resilience Eco Society® in society requires human resources that support technologies and infrastructure, trust with local communities, supply chains, customers and users, and co-creation with municipalities and business partners. Social infrastructure for waste, water, energy, disaster prevention, and other needs contributes to local living environments, public health, safety and security, access to energy, employment, education, and community pride.

Particularly in regions where waste is not properly treated and opportunities for a healthy living environment, health, safety, education, and employment are constrained, implementing resource-circulation infrastructure can improve the well-being of people and society. A perspective on people and a fair society is therefore indispensable when considering Resilience Eco Society®.

Business Development and Finance Supporting Social Implementation

Advanced technology alone is not sufficient to implement Resilience Eco Society® in society. Social infrastructure such as waste treatment, water, and energy requires large initial investment and is operated over long periods. It is therefore important to design business development, financing, EPC, and operation and maintenance as an integrated whole, taking into account regional institutions and public finances and customers' business viability.
The Kanadevia Group works with customers, municipalities, local business operators, financial institutions, investors, and other partners and, depending on the project, combines long-term contracts, financing, EPC, operation and maintenance, and other functions to convert environmental and social value into businesses that regions can introduce and continue to use. Kanadevia Inova in particular combines project development, EPC, O&M, asset management, financing, and other capabilities, expanding from one-off equipment delivery into lifecycle businesses that create value over the long term.

For the Group, finance is not merely a means of raising funds; it is an important implementation capability for making environmental technologies affordable and scalable and converting environmental and social value into sustainable business value.

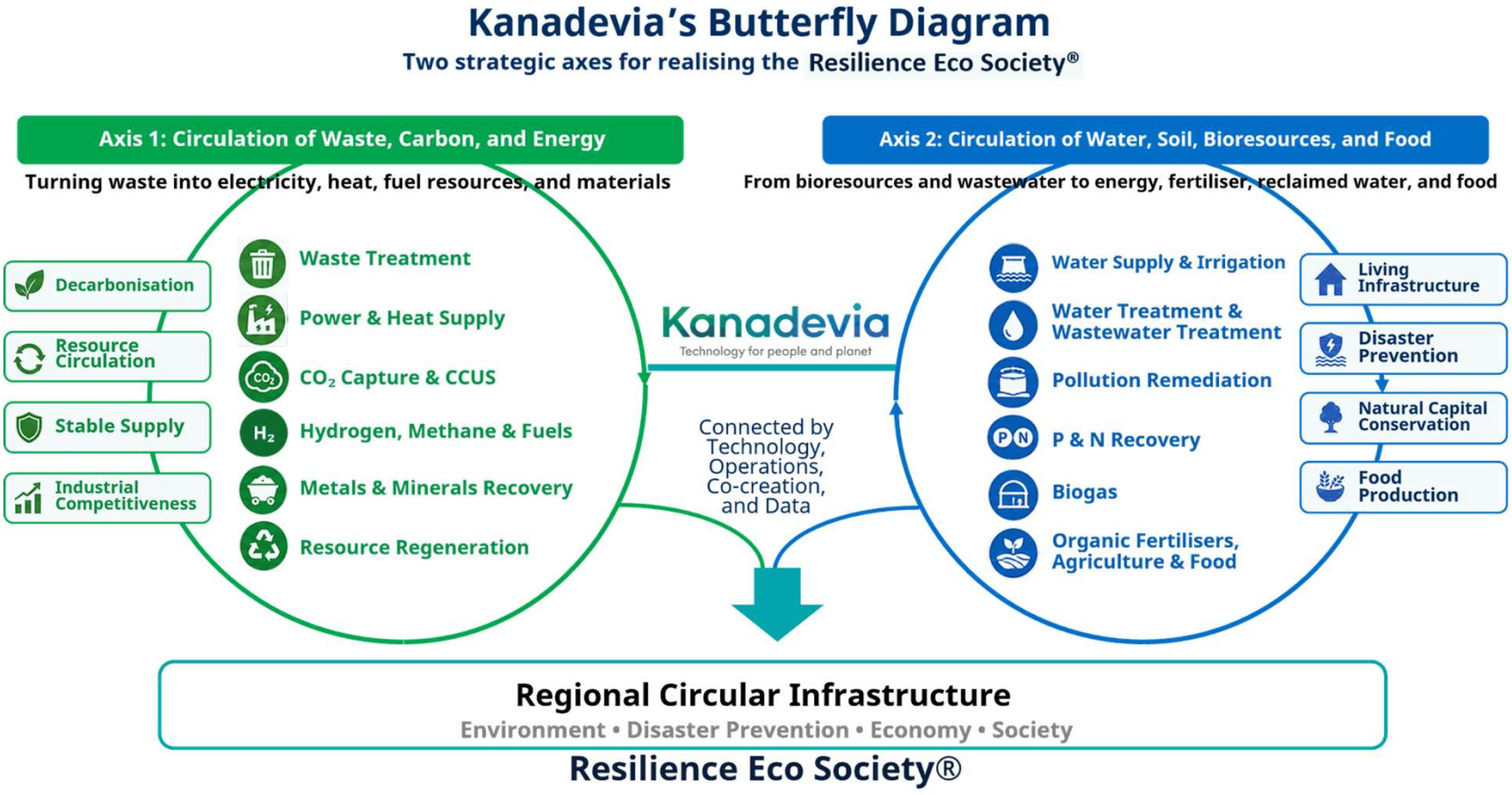


Figure 4-1: Two Strategic Axes

Executive Interview

“Taking on the Challenge of Realising a Circular Society”



Kanadevia INOVA

CEO
Bruno-Frédéric Baudouin

What we in the Kanadevia Group—and Kanadevia Inova in particular—are seeking to realise is “a future free of wasted waste.” This is succinctly expressed in the following mission and vision.

Rather than treating waste and stopping there, we seek to transform it into new resources and put those resources back to use in society. We want to shift from a one-way flow in which resources are consumed and discarded to a society in which what has been used regains value and circulates again. That idea lies at the heart of our business.

Kanadevia Inova’s mission:

We create value for communities, contributing to a future free of wasted waste.

Kanadevia Inova’s vision:

We are a global, vertically integrated green utility, an innovation leader in the waste infrastructure space, driving decarbonization, circularity and supply security for present and future generations.

Restoring Lost “Circularity” to Modern Society

When I think about a circular society in 2050, I think of farms in earlier times. On traditional farms, the concept of “waste” as we know it today scarcely existed. Crops were grown, livestock were raised, and by-products became fertiliser or feed and were returned to production. Although on a small scale, a functioning cycle of resources existed. Since the Industrial Revolution, society has become dramatically more prosperous, but perhaps we have lost this idea of “**closing the loop**.”

What we want to realise towards 2050 is not a return to the society of the past. It is to use technology to recreate these cycles at the scale of modern cities and industries: generate electricity and heat from waste, produce renewable gas, recover metals and minerals, convert CO_2 into new fuels, and return plastics to chemical feedstocks.

From Waste to Energy to Waste to X. By transforming waste into many forms of value, we can close resource loops one by one. We believe we have the technological potential to make this possible, and the platform to scale it globally.

Technology Alone Will Not Change the World

We are well aware that what is technically “possible” and what is widely adopted by society are entirely different matters. For example, we have technology to capture CO_2 from Waste to Energy plants. At the research level, it is also becoming possible to produce methane and liquid fuels from captured CO_2. Why, then, have these technologies not yet been implemented worldwide?

One of the biggest challenges is **affordability—bringing costs to a level at which society can adopt the solution.** No matter how outstanding an environmental technology may be, it cannot solve a global problem if it can be deployed only in a limited number of wealthy countries or regions.

We need to make technologies more efficient, make facilities more compact, improve EPC cost competitiveness, streamline operations, and attract competitive financing. It is important to look beyond technology alone and reduce total costs, including financing and operations, so that solutions become affordable for society to adopt.

Another equally important factor is **scalability[66)]—that is, the ability to deploy the same model across many regions**. A single outstanding plant will not change the world. Only when the same model can be replicated across many regions and create circularity at industrial scale can we truly change society.

Our goal is not only to develop advanced technologies. It is to make those technologies affordable and scalable.

"Everything under one umbrella" Enables Circularity in Practice

This is where Kanadevia Inova has a major strength. Technology alone is not enough to turn waste into resources. It requires the capability to develop technologies, conceive and develop projects, engineer and construct plants through EPC, operate and maintain them over the long term, and manage the infrastructure assets themselves over their life cycles. We have structured these capabilities into a business model we call "**everything under one umbrella**." It brings diverse technologies and capabilities together under one umbrella.

Kanadevia Inova has always had strong technological roots. We subsequently rebuilt our EPC business and, through organic growth and M&A, added capabilities in development, O&M, services, and asset management. By combining these functions, we are transforming from a company that simply supplies plants into one that creates circular infrastructure itself and operates it over the long term. In other words, where we once planted trees, we are now seeding forests.

This integrated capability also contributes to affordability. We can originate projects ourselves, select the optimal technologies, and design EPC, O&M, financing, and local partnerships as an integrated business model. By drawing on funding from international financial institutions, government-related institutions, infrastructure investors, and others, we can create structures best suited to each local community. By building long-term partnerships with local companies, we can also make that infrastructure truly rooted in the communities it serves.

If we can combine social value with economic rationality in this way, we can scale the same model around the world.

Circularity Can Address Climate, Nature, and People & Society Challenges Together

The transition to a circular society matters because it addresses more than resource issues alone. Reducing landfill and ensuring proper waste treatment helps reduce GHG emissions. It also helps prevent pollution of soil, water, and surrounding environments caused by landfill leachate and other sources.



If we can also recover energy, renewable gas, metals, minerals, and other resources from waste, we can reduce dependence on new natural resources and fossil fuels. In other words, advancing circularity is simultaneously a response to climate change, a means of protecting natural capital, and a way to improve living environments in local communities.

One initiative that symbolises this potential is our project in Casablanca. In a region that has historically depended on landfill, we are developing a new waste-management system by making Waste to Energy economically viable for adoption. This can generate new value from waste while significantly reducing GHG emissions and the environmental impacts on the local area.

What matters is that it does not end with a single project. The real value lies in applying the experience gained there to other regions and creating similar circular systems around the world. Our model makes this possible.

Making "Once-Aspirational Circularity" the Norm in Society

There are strong tailwinds supporting the transition to a circular society. Communities want cleaner and safer living environments. Countries are pursuing decarbonisation while placing increasing emphasis on the security of energy and resource supplies. At the same time, pressure is growing to circulate finite resources within society rather than continuing to consume them in a linear way. Producing energy, heat, gas, metals, and other resources from waste is precisely what we mean by circularity at scale—resource circulation at an industrial scale. In the future, renewable gas produced from waste can power cars and ships and potentially even become fuel for aircraft. Waste to X is bringing us closer to a society in which a single waste stream can generate multiple forms of value.

Our role is to turn what was once considered a "dream" into a normal part of society through technology and viable business models. I believe that is the role of the Kanadevia Group. A circular society cannot be realised through a single technology. It can be implemented only by combining technology, infrastructure, finance, operations, and collaboration with local communities in a way that reconciles environmental value with economic value. And then we can take a circular model realised in one region to the next region, and onward from there.

Creating affordable, scalable circularity around the world.

That is our challenge on the path towards "a future free of wasted waste."



Figure 4-2: Casablanca Project Completion Rendering

Case Study Column: The Casablanca Project as an Affordable Model

Kanadevia Inova, our subsidiary, is pursuing a long-term operating business in Casablanca, Morocco, for a Waste to Energy plant that will process approximately 1.5 million tonnes of waste annually. For this project, it entered into a 33.5-year operating agreement with the City of Casablanca for waste treatment and resource recovery. It has also entered into a power purchase agreement with a local electricity operator and is advancing its first Waste to Energy project in the African market. Serving the Greater Casablanca region, which has a population of more than 4.2 million, the project will develop infrastructure integrating waste treatment, landfill management, and energy recovery.

The facility is planned to process around 1.5 million tonnes of municipal solid waste per year, raising the rate of resource and energy recovery from waste to approximately 80%. This will significantly reduce reliance on landfills, which have historically been the primary disposal method. In addition to approximately 126 MW of Waste to Energy generation capacity, the project will include 50 MWp of solar power generation and 4 MW of landfill-biogas recovery and utilisation capacity, with planned annual electricity supply of approximately 1 TWh. This is equivalent to the annual electricity demand of approximately one million people and will also contribute to Morocco's energy transition as electricity demand is expected to grow.

A distinctive feature of this project is that it is not limited to an EPC project in which a Waste to Energy plant is constructed and handed over. Under a long-term operating agreement, it is structured as a business combining project development, financing, EPC, operational support, and long-term maintenance. Kanadevia Inova has formed a consortium with Morocco's Nareva Holding S.A. and ITOCHU Corporation and, in addition to EPC and related functions, is involved in financing the facility. Implementing large-scale environmental and social infrastructure requires not only technical performance but also a long-term business foundation through operating agreements and power offtake arrangements, together with integrated financing, construction, and operations.

This project is one leading model in which the Kanadevia Group combines environmental technology with business development and finance to create social infrastructure that a region can introduce and use over the long term.

From a climate-change perspective (TCFD), shifting waste from landfill to energy recovery will help curb emissions of methane, which has a high global-warming potential, while reducing GHG emissions through the effective use of waste-derived energy, solar power, and construction of biogas recovery units to capture energy from landfilled waste.

The facility is also designed to enable the future introduction of carbon capture, utilisation and storage (CCUS), providing scalability for long-term decarbonisation.

From a nature perspective (TNFD), substantially reducing the volume of waste sent to large-scale landfills will help reduce pressures from land use, lessen impacts on surrounding environments caused by waste and wastewater, and promote more effective use of resources. The project also aims to reduce pressures on natural capital—including air, water, and land—by introducing advanced flue-gas and wastewater treatment technologies and ensuring environmental performance consistent with the EU Industrial Emissions Directive (IED)[67] and Best Available Techniques (BAT)[68].

From a people- and society-related perspective (TISFD Beta), the project is expected to improve public health and living conditions through sanitary waste treatment, contribute to a stable electricity supply, and create local employment. It plans to employ around 140 skilled workers during operations, create roughly 1,240 jobs over the 3.5-year construction period, and generate a further 300 jobs through related infrastructure, thereby contributing to the local economy and skills development.

The project can be positioned as a leading model for creating multiple forms of social and environmental value—not only addressing climate change, but also advancing resource circulation, improving the local environment, and providing energy that supports the foundations of daily life.

4.2 Premises for Analysis of Climate, Nature, and People & Society

Purpose and Positioning of the Analysis

In this section, dependencies, impacts, risks, and opportunities related to Climate, Nature, and People & Society provide the basis for considering the Kanadevia Group's strategy. The purpose of these analyses is not simply to list individual risk items. Rather, it is to understand the natural capital, social foundations, and human and social relationships on which the Group's businesses depend, and the impacts those businesses may have on them, and to connect those findings to the strategy for realising Resilience Eco Society®.

In conducting the analysis, we regard Climate, Nature, and People & Society as interrelated issues. Responding to climate change is closely connected with conserving natural capital and promoting resource circulation. Dependencies on and impacts on natural capital also relate to local living environments, safety and security, public health, employment, access to energy, and other aspects of communities. Accordingly, this chapter does not treat Climate, Nature, and People & Society only as separate analytical subjects; it also shows how they relate to business strategy, co-creation with regions and customers, supply chains, people and organisation, financial impacts, and the Transition Plan.

Frameworks Referenced and Scope of Analysis

This section analyses Climate, Nature, and People & Society with reference to the perspectives of TCFD, TNFD, and TISFD Beta. However, the scope of analysis, availability of data, evaluation methods, and maturity of management are not the same across these areas. We therefore clarify the characteristics and constraints of each area and set out the key implications that can currently be identified.

For climate, we assess the potential effects of changes in future social, policy, and market environments on the Kanadevia Group's businesses, focusing on transition risk[69], physical risk[70], and opportunities. For nature, we assess the points of contact between business activities and natural capital from the perspectives of dependencies, impacts, priority locations, nature-related risks, and opportunities. For people and society, we conduct a preliminary mapping of relationships with business activities, covering own workforce, value chain workers, local communities, customers and users, and other stakeholders.

For natural capital analysis, we referred to the LEAP Approach[71], ENCORE[72], and other sources to identify business impacts on ecosystems and dependencies on ecosystem services[73]. The scope is not limited to our direct operations. To the extent information is available, we assess the upstream value chain including suppliers, direct operations such as factories, business sites, and facilities operated under contract, and the downstream value chain including customer facilities and the use phase of products and services.

Analytical Methods and Data Constraints

Dependencies on and impacts on natural capital were assessed by business activity and value chain stage, referring to assessments such as ENCORE. However, ENCORE provides general assessments based on industry classifications and does not fully reflect individual facilities, projects, regions, equipment, or operating conditions. The Kanadevia Group therefore reviews assessment results, where necessary, in light of facility locations, equipment, operational management, laws and permits, agreements with municipalities, internal standards, environmental management conditions, and other factors.

Nature-related dependencies and impacts also vary greatly by location. Water use, water quality, land use, biodiversity, disaster risk, and relationships with surrounding communities differ depending on the region, watershed, ecosystem, and social conditions where facilities and projects are located. Location-based analysis is therefore important. In this chapter, we present available location information across the value chain, including not only our own sites but also Upstream and downstream value chains.

At the same time, we do not have data at the same level of detail for every business, region, facility, supplier, and customer facility. In particular, information on upstream raw-material sourcing locations and downstream customer facilities is constrained in terms of scope and availability. The analyses presented in this chapter are therefore based on information currently available. We will develop location information, watershed information, environmental data, and information on customer facilities, and enhance the analysis in stages.

Analysis related to people and society is also currently at an initial stage. We do not yet obtain and evaluate data for all stakeholders with the same scope and level of detail. In addition, because data and calculation rules needed to calculate comparable financial impacts across the Group for people- and society-related risks have not yet been established, this chapter qualitatively maps potential pathways of impact and strategic issues rather than calculating quantified financial effects.

Connection to Strategy

The analysis in this section is not conducted simply to identify risks. By assessing dependencies, impacts, risks, and opportunities related to Climate, Nature, and People & Society, we seek to identify where the Kanadevia Group can create environmental value, social value, and corporate value.

For example, analysis of waste-carbon-energy circulation connects to strategies involving Waste to Energy, Waste to X, CCUS, methanation, heat supply, and resource recovery. Analysis of water-soil-biological resources-food circulation provides a basis for considering possibilities such as water utilisation, flood control, water treatment, sludge recycling and resource recovery, Phosphorus and nitrogen recovery, biogas, and reclaimed-water use. Analysis related to people and society also provides a foundation for identifying the people, trust, community relationships, supply chains, and forms of co-creation with customers and users needed for just social implementation of Resilience Eco Society®.

Based on these premises, the following sections assess dependencies on and impacts on natural capital and priority locations, followed by issues related to people and society, scenario analysis, risks and opportunities, and financial impacts. We then connect these analytical results to the strategy and transition plans for realising Resilience Eco Society®.

4.3 Dependencies on and Impacts on Natural Capital and Priority Locations

(1) Overview of Risk Assessment of Dependencies on and Impacts on Natural Capital

This section presents a risk analysis of the Kanadevia Group's dependencies on and impacts on natural capital, and identifies and narrows down the impacts that are important to the Group across its relationships with diverse forms of natural capital. For the process of identifying and evaluating nature- and climate-related risks, please refer to **Section 5.2**.

As in the previous fiscal year, we evaluated dependencies on and impacts on nature at our own operating sites related to the businesses covered and at raw material procurement sites using ENCORE, as recommended by TNFD. Items that received high risk assessments are described in this section and **Appendix C**.

We first reviewed ENCORE assessments for the industry classifications adopted. However, sector-level global averages do not necessarily reflect the Kanadevia Group's actual operations. We therefore refined the assessment to reflect actual operating conditions, taking into account the locations of factories and facilities, equipment conditions, laws and agreements with municipalities, and operations based on internal standards.

Tables 4-1 and 4-2 present selected natural capital and ecosystem services relevant to the Group and omit other items. Assessment results for each business are provided in Appendix C. This section describes the main results, focusing on items assessed as Very High or High risk.

Risk Assessment Using ENCORE

To assess the scale and nature of ecosystem impacts arising from business activities, we referred to the guidelines provided under the LEAP Approach in TNFD v1.0 and to ENCORE values, which are recommended for use in the TNFD framework.

For businesses without a directly applicable ENCORE industry classification, we selected a reference industry classification based on similarity in business characteristics and compared it with operational and environmental data from the Group’s works and facilities. On this basis, we assessed impacts on natural capital and dependencies on ecosystem services. We also mapped and estimated the stages of the value chain shown in **Chapter 2** within the range of data available.

Following ENCORE, risk assessments were conducted on a five-point scale: Very High, High, Medium, Low, and Very Low.



Kanadevia Group's Dependencies on Natural Capital

Dependencies on natural capital refer to aspects in which a business receives direct or indirect benefits from the existence and functioning of nature. In this analysis, we assess the potential business effects if those benefits were interrupted.

We found that many businesses share high dependencies on climate-related ecosystem services, specifically rainfall pattern regulation and climate regulation. We also found high dependency on solid waste remediation[74] because disposal generates waste requiring landfill treatment.

ENCORE assesses solid waste remediation associated with disposal of Waste to Energy facilities and infrastructure as Very High, but taking into account appropriate waste management in developed countries, we revised the assessment to High.

Legend

- Spiritual, artistic and symbolic services
- Rainfall pattern regulation
- Water flow regulation
- Global climate regulation
- Solid waste remediation
- Local climate regulation
- Water supply

Table 4-1: Kanadevia Group's Dependencies on Natural Capital

Business		Processes	ENCORE classification	Assessment result	
				Very High	High
Environment Business	WtE	Procurement	Manufacture of basic iron and steel	-	 
			Manufacture of cement, lime and plaster		-
		Construction and site coordination	Other construction installation	-	 
		Disposal during construction	Waste treatment and disposal	-	
		Infrastructure disposal	Demolition		-
			Waste treatment and disposal	-	
	WtX	Operation	Materials recovery	-	
Infrastructure Business		Procurement	Manufacture of basic iron and steel	-	 
			Manufacture of cement, lime and plaster		-
		Construction and site coordination	Construction of utility projects		-
		Disposal during construction	Demolition		-
			Waste treatment and disposal	-	
Carbon Neutral Solution Business	Wind power generation	Operation	Wind energy provision		-
	Casks	Infrastructure disposal	Waste treatment and disposal		-

* Only items rated Very High or High are shown. The Machinery Business has no dependencies rated Very High or High.
* For Waste to X and Wind Power Generation, because their facilities and equipment are composed mainly of concrete and steel in the same way as Waste to Energy facilities and equipment, only the operating stage was assessed.

Kanadevia Group's Impacts on Natural Capital

Impacts on natural capital refer to negative effects on nature caused by pollution, land use, and other factors. Negative impacts on nature can in turn affect stakeholders in local communities that use and depend on that nature.

We found Very High impacts related to the use of land, freshwater, and the seabed in the Environment Business - specifically Waste to Energy, Biomass Power Generation, and Waste to X - as well as in the Infrastructure Business. We also found that impacts related to GHG and non-GHG emissions, pollutant releases, and disturbances are common across many businesses.

For ecosystem disturbance during construction/site adjustment and infrastructure disposal, we reviewed the assessments because the Kanadevia Group has established voluntary standards[75] stricter than legal requirements and operates with due consideration under its environmental management systems.

Legend

- GHG emissions
- Non-GHG emissions
- Disturbance
- Release of pollutants to water and soil
- Release of nutrient pollutants
- Water use
- Generation and release of solid waste
- Area of freshwater use
- Area of land/seabed use

Table 4-2: Kanadevia Group's Impacts on Natural Capital

Business		Processes	ENCORE classification	Assessment result	
				Very High	High
Environment Business	WtE	Procurement	Manufacture of basic iron and steel	-	GHG, Non GHG
			Manufacture of cement, lime and plaster	-	GHG, Non GHG
		Design and manufacture	Manufacture of special-purpose machinery	-	GHG
		Construction and site coordination	Other construction installation	Disturbance	GHG, Disturbance, Release of pollutants to water and soil, Area of land/seabed use, Area of freshwater use
		Disposal during construction	Other construction installation	Disturbance	GHG, Disturbance, Release of pollutants to water and soil, Area of land/seabed use, Area of freshwater use
			Demolition	Disturbance	GHG, Release of pollutants to water and soil, Area of land/seabed use, Area of freshwater use
			Waste treatment and disposal	Disturbance	Disturbance
		Operation	Fossil fuels energy production	GHG	Generation and release of solid waste, Area of freshwater use
		Infrastructure disposal	Demolition	Disturbance	Release of pollutants to water and soil, Release of nutrient pollutants, Area of land/seabed use, Area of freshwater use
			Waste treatment and disposal	-	GHG, Release of pollutants to water and soil, Release of nutrient pollutants, Water use
	Biomass power generation	Procurement	Sawmilling and planing of wood	-	GHG, Water use
		Operation	Biomass energy production	-	Non GHG, Generation and release of solid waste
	Biogas power generation	Operation	Waste treatment and disposal	-	GHG, Release of pollutants to water and soil, Release of nutrient pollutants
	WtX	Procurement	Waste treatment and disposal	-	GHG, Release of pollutants to water and soil, Release of nutrient pollutants
		Operation	Remediation activities and other waste management services	-	GHG
	Water	Operation	Water collection, treatment and supply	-	Area of freshwater use, Area of land/seabed use
			Sewage	-	GHG

* Only items rated Very High or High are shown.
* For biomass power generation, biogas power generation, WtX, and water-related businesses, only the operational phase and processes specific to each business were assessed, as their facilities and equipment are primarily composed of concrete and steel, similar to WtE facilities and equipment.

Trends in Total Environmental Impacts

Analysis based on ENCORE is suitable for identifying where risks exist within the Kanadevia Group's supply chain. However, it has limitations for quantitatively identifying the type and amount of risk.

Accordingly, to understand GHG emissions among the Group's environmental impacts, we calculate GHG emissions in accordance with the Ministry of the Environment's "Basic Guidelines on Accounting for GHG Emissions Throughout the Supply Chain" and disclose them in the ESG Databook.

The calculation shows that, for GHG emissions (Scopes 1, 2, and 3), Scope 3 Category 11 - emissions generated from the use of sold products - is large and accounts for more than 70% of total Scope 1, 2, and 3 emissions. More detailed analysis shows that most of these emissions are from "use of Waste to Energy," namely GHG emissions generated when waste is incinerated at Waste to Energy facilities. As a result, the Group's environmental impacts are significantly affected by the number of Waste to Energy orders received in a given fiscal year.

Legend

- GHG emissions
- Non-GHG emissions
- Disturbance
- Release of pollutants to water and soil
- Release of nutrient pollutants
- Water use
- Generation and release of solid waste
- Area of freshwater use
- Area of land/seabed use

Table 4-2: Kanadevia Group's Impacts on Natural Capital (continued)

Business		Processes	ENCORE classification	Assessment result	
				Very High	High
Machinery Business		Design and manufacturing	Manufacture of electronic components and boards	-	
Infrastructure Business		Procurement	Manufacture of basic iron and steel	-	GHG, Non GHG
			Manufacture of cement, lime and plaster	-	GHG, Non GHG
		Construction and site coordination	Construction of utility projects		Disturbance, Release of pollutants to water and soil
		Infrastructure disposal	Demolition		Disturbance, Release of pollutants to water and soil, Water use, Area of freshwater use
			Waste treatment and disposal	-	GHG, Release of pollutants to water and soil, Release of nutrient pollutants
Carbon Neutral Solution Business	Marine Engines	Procurement	Manufacture of basic iron and steel	-	GHG, Non GHG
	Wind Power Generation	Operation	Wind energy production	-	Generation and release of solid waste
	Pressure vessels	Procurement	Manufacture of basic iron and steel	-	GHG, Non GHG
	Casks	Procurement	Manufacture of basic iron and steel	-	GHG, Non GHG
		Disposal	Waste treatment and disposal		GHG, Non GHG, Release of pollutants to water and soil

* Only items rated Very High or High are shown.
* For wind power generation, only the operational phase and processes specific to the business were assessed, as its facilities and equipment are primarily composed of concrete and steel, similar to WtE facilities and equipment.

Other categories that continue to account for large shares of emissions are "Purchased Goods and Services" (Scope 3 Category 1) and Category 11 excluding Waste to Energy. Approximately 50% of the latter is attributable to "use of marine engines." Although the Marine Engine Business is no longer included in the scope of consolidation, it remains part of the Group's downstream value chain.



Implications from the Analysis Results

The analysis above confirms that the Kanadevia Group's relationship with natural capital is not limited to specific types of natural capital or ecosystem services, but extends throughout the value chain, from procurement and manufacturing to construction, operation, product use, and disposal. In particular, dependencies on climate-related ecosystem services; impacts associated with the use of land, freshwater, and the seabed; and impacts from GHG, non-GHG, and pollutant emissions are important issues common to multiple businesses.

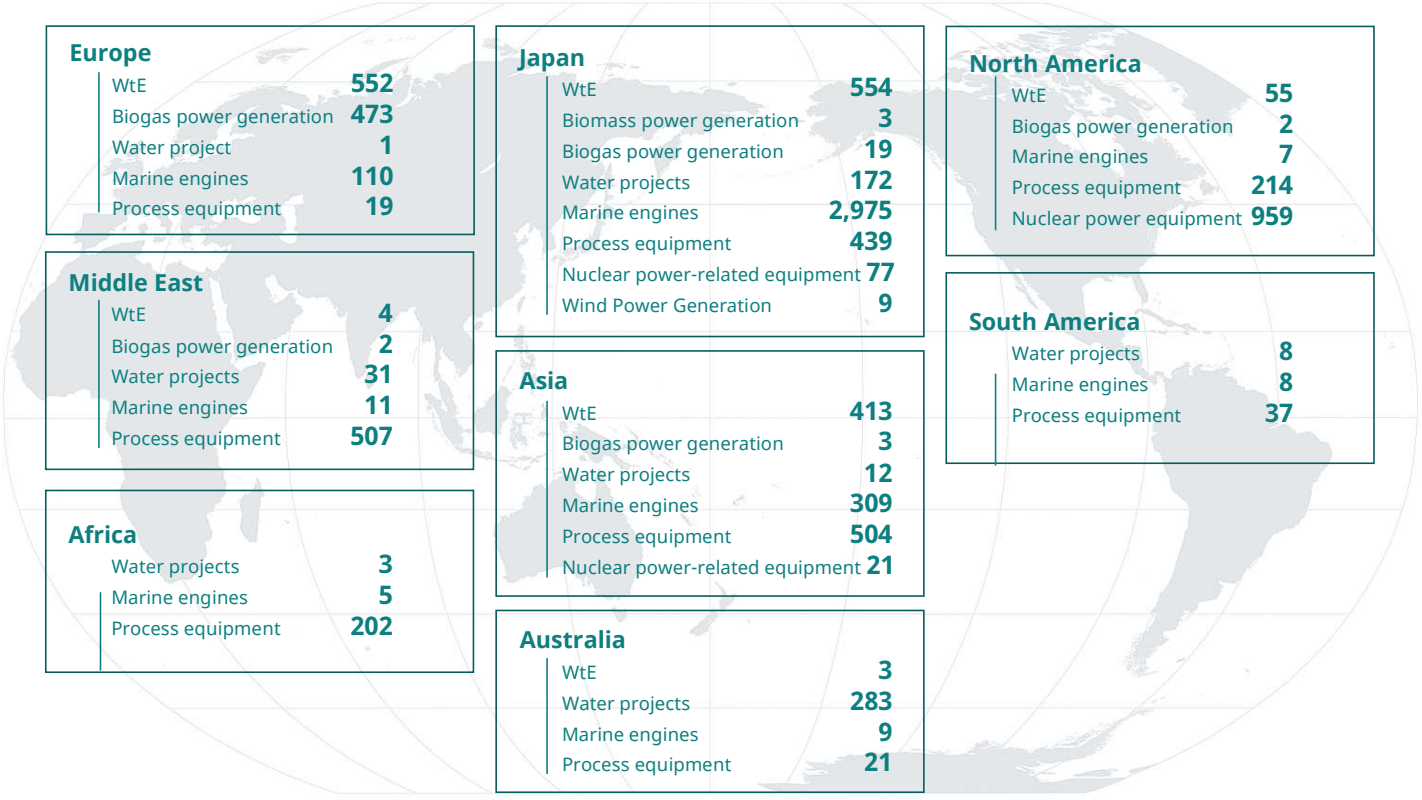
For GHG emissions, the large share generated during the use of sold products—particularly during the use of Waste to Energy facilities—shows that the Group's environmental impacts also materialise at customer facilities. These impacts can continue over long periods as products and services are used, not only in the Group's own direct operations.

(2) Locations Covered by the Analysis and Regions of Business Development

The Kanadevia Group manufactures and sells equipment and machinery. To assess the relationship between environmental impacts and the locations where the Group operates, we focused on businesses with broad and long-term contact with the environment through plant engineering functions - specifically the Environment Business, Machinery Business, Infrastructure Business, and Carbon Neutral Solution Business.

In these businesses, major products and equipment are manufactured at our own factories and delivered to customer facilities together with purchased items and other components. Customers receiving these products are located around the world; facilities are constructed by customers and operated either by the customers themselves or by the Group under operating contracts. Accordingly, the location analysis covered factory sites and the main locations where facilities are constructed and operated in each business.

The principal locations where these businesses are implemented - that is, the locations of customers' facilities - are as follows.



* Includes facilities operated by subsidiaries under contract.
* The WtX project and projects related to Carbon Neutral Solution Business systems are in the demonstration phase.
* The biogas Waste to Energy includes licensees' facilities outside Japan.
* Water projects are the results of human waste treatment facilities and reverse osmosis (RO) treatment facilities. Includes some facilities in Japan whose operational status cannot be confirmed.
* The ship engine business represents shipyard/plant-based deliveries since production commenced in 1950.
* Machinery Business and Infrastructure Business deliver to customer facilities, mainly in Japan and Asia, but are not counted in this table.
* Data is disclosed to the extent available.

Figure 4-3: Principal Locations of Kanadevia Group Business Operations (Cumulative delivery figures as of the end of March 2026)

(3) Regional Development of Major Businesses

Environment Business

The **Waste to Energy Business** is developed mainly in Europe, Japan, the Middle East, and Southeast Asia. Europe and Japan are regions with stringent environmental regulations, and the Kanadevia Group conducts business in compliance with these regulations; we therefore consider environmental risk to be low.

We are also advancing businesses that reduce local environmental risks by installing Waste to Energy in regions with high landfill rates, particularly open dumping areas where waste is directly landfilled, thereby helping suppress methane emissions. We have experience with such initiatives in Thailand (350 tonnes) and Malaysia (600 tonnes).

In particular, Malaysia's Solid Waste Modular Advance Recovery and Treatment Waste to Energy ("SMART WTE") Plant was the first project to construct an incineration facility in an open dumping area, reducing open dumping through waste incineration. The facility incinerates 600 t/day out of a total waste intake of 3,000 t/day. We are also advancing initiatives in collaboration with waste businesses in Thailand, Indonesia, Malaysia, and other countries.

The Waste to Energy project in Dubai, United Arab Emirates, was completed in August 2024 and is planned to be operated for 35 years, making it a recent landmark project. We are also advancing a similar project in Abu Dhabi. These projects are being carried out while strengthening collaboration among Group companies.

In the **Water Business**, we provide sludge recycling and resource recovery systems, final-disposal-site leachate treatment systems, and drinking-water, sewage, and industrial wastewater treatment systems in Japan. In Cambodia, we have introduced drinking-water treatment facilities. We also provide mine wastewater treatment, seawater desalination, industrial wastewater treatment, and related solutions in Australia, New Zealand, the Middle East centred on the United Arab Emirates—including Saudi Arabia and Oman—and parts of North Africa. Specific initiatives include mine-wastewater treatment in Australia, a large-scale seawater desalination project in Cabo Verde aimed at addressing chronic water scarcity, and a demonstration project in the Maldives using renewable energy for seawater desalination.

In Pacific Island countries including Fiji, Tonga, and Samoa, traditional rainwater and groundwater sources are being threatened by the effects of climate change, and we therefore provide water supply facilities.

For the **Waste to X Business**, discussions are underway in Thailand, China, Indonesia, Vietnam, and other countries towards installation of the first EFCaR (Energy Free Carbonising for Resource Recovery) system. For bioethanol production, we have been commissioned by the Tokyo Metropolitan Government to develop a project for converting Tokyo's municipal waste into Sustainable Aviation Fuel (SAF)[76]. For biological methanation, we are developing business in Japan and Southeast Asia targeting sewage treatment plants equipped with digesters and food factories with methane fermentation facilities.

Machinery Business

Machinery Business products are mainly manufactured at the Chikko Works and Maizuru Works in Japan.

Infrastructure Business

Products sold by the Infrastructure Business are manufactured mainly at our Sakai Works and Mukaishima Works in Japan.

Carbon Neutral Solution Business

In the **Process Equipment Business**, pressure vessels and casks/canisters - containers for transporting and storing spent nuclear fuel - are manufactured at our Ariake Works in Japan and supplied worldwide. Casks are also manufactured by a Group company in North America.

We have also entered into a collaboration agreement with a Taiwanese company for EPC of spherical tanks for liquid CO_2 storage required for CCS and CCUS, and are expanding our strengths in pressure-vessel and storage-tank technologies into CCS/CCUS infrastructure.

Within the **Decarbonisation Systems Business**, our Hydrogen Generation Systems have a delivery record primarily for customers involved in PtG[77] demonstration projects in Japan. We are currently conducting a scale-up demonstration under the Green Innovation Fund (GI Fund)[78] programme. In parallel, we are constructing a factory in Tsuru City, Yamanashi Prefecture, Japan with annual production capacity of more than 1 GW to enable mass production of Hydrogen Generation Systems, targeting completion by the end of FY 2029. We are also considering business development in the Middle East and India.

For methanation, we are developing business in Japan, Europe, and Oman. In Oman, we are conducting a pilot project towards consideration of a pilot plant with a capacity of 1,200 Nm^3/h and a commercial-scale plant with a capacity of 18,000 Nm^3/h, including consideration of a large-scale complex incorporating seawater desalination, Hydrogen Generation Systems, and methanation.

Within the **Wind Power Generation Business**, onshore wind power generation is developed mainly in Japan, where we construct wind turbines and operate power generation businesses. In addition to operations at three locations in Akita Prefecture (2 MW × 4 turbines), commercial operation of 15 wind turbines (4.3 MW × 15 turbines) began in the Ogawara area, Aomori Prefecture in March 2026. In addition to EPC, we plan to undertake operation management and maintenance services for approximately 20 years.

Offshore wind power generation is currently in the development phase, and we have obtained technology certification at the development and demonstration stage for wind turbine foundation components to be supplied to customers in Japan.

For marine applications, we are developing methane-slip reduction technology for LNG-fueled vessels by combining methane oxidation catalysts with engine improvements. Under a GI Fund development project, we achieved a methane-slip reduction rate of 98% in tests on an actual vessel.

(4) Environmental Impacts in Procurement

Kanadevia Group procurement is conducted based on customer RFPs. The ENCORE risk analysis presented in this section showed that environmental impacts are generally high in the procurement process within the value chain, particularly for steel and machinery.

We are collecting information on actual environmental impacts at suppliers through Supplier Engagement. We are also advancing global procurement initiatives across the Group to optimise supplier selection while reducing environmental impacts and meeting customer RFP requirements.

(5) Biodiversity Importance Assessment by Site and Facility in Direct Operations and Other Activities

Next, we conducted a biodiversity assessment of sites and facilities, including direct operations. For the assessment, we used databases of “Protected Areas” and “Key Biodiversity Areas (KBAs)[79)]”- areas of particular importance for biodiversity conservation - to assess the relationship between operating locations and rare-species habitats.

The assessment used a five-point scale - Very High, High, Medium, Low, and Very Low - ranked by importance for biodiversity conservation, taking into account differences in location and business characteristics, legal frameworks and community agreements, and operations based on internal standards.

The results showed that the Kanadevia Group's highest-priority, highest-risk biodiversity sites are locations where environmental products and services delivered to customers are installed. This is because land use occurs during construction. At the same time, the products and services we deliver, such as Waste to Energy and wastewater treatment facilities, contribute to environmental restoration. We believe that ensuring these facilities continue to operate properly helps protect local nature and bring environmental conditions closer to recovery compared with conditions before installation.

At both our own factories and equipment installation sites, biodiversity risk may increase if an environmental accident occurs. For wastewater treatment facilities in particular, if they do not operate properly, pollution of the watershed may persist rather than recover. This demonstrates the importance of the downstream value chain in relation to water use.

Accordingly, the Group will continue appropriate environmental management through its environmental management systems and will provide maintenance, repairs, and other support so that equipment delivered to customers operates properly over the long term. The following sections present the analysis of our own facilities, customer facilities, and other relevant sites.



[Own Facilities]

At Kanadevia Group factories and sites, even where protected areas or KBAs are located nearby, environmental management keeps environmental impacts below voluntary standards that are stricter than legal requirements. As a result, all impacts on nature at these sites were assessed as Medium or lower.

For example, Ariake Works is not only adjacent to Shimabara Bay, a KBA, but is also surrounded by several KBAs. In these KBAs, marine fish and bird species, including Ariake Dwarf Icefish (EN: Endangered), are designated as threatened species, making wastewater management particularly important.

At Ariake Works, wastewater is treated using an oil-water separation tank, and voluntary water-quality standards stricter than legal requirements are established and managed before discharge into the Ariake Sea. Electronic monitoring equipment is also installed, and during heavy rainfall or other events, inflow to the tank can be shut off as necessary to prevent wastewater from flowing directly into the sea as a result of overflow.



Figure 4-4



Figure 4-5

[Customer Facilities, etc.]

Within the Environment Business, some customer sites where Water Business equipment is installed were assessed as Very High or High. We also found High assessments at installation sites in the Infrastructure Business and High assessments at installation sites in the Wind Power Generation Business within the Carbon Neutral Solution Business.

The following section presents individual analytical results for cases in which information was obtained with the cooperation of customers.

Environment Business

Waste to Energy Business: WtE facility (Malacca, Malacca State, Malaysia)

Through Malakoff Corporation Berhad, the Kanadevia Group is constructing a Waste to Energy facility in Malacca City, Malaysia. The construction area is part of a former rubber and oil-palm plantation and is the habitat for bird species protected under Malaysian law, including Blue-tailed Bee-eater (*Merops philippinus*), Ashy Tailorbird (*Orthotomus ruficeps*), White-throated Kingfisher (*Halcyon smyrnensis*), Crested Serpent-eagle (*Spilornis cheela*), Red-wattled Lapwing (*Vanellus indicus*), and Little Green-pigeon (*Treron olax*). These species are classified as Least Concern (LC) on the IUCN Red List. Malakoff's environmental impact assessment evaluated the adverse effects of Waste to Energy construction on these birds as low on the grounds that similar habitats exist in the surrounding area.

Figure 4-4 : Oil-Water Separation Tank (Ariake Works)
Figure 4-5 : (Front left) Ariake Works, Kanadevia Corporation, and Hitachi Zosen Marine Engine Co., Ltd. plant

The Leleh River, into which wastewater from the Waste to Energy facility flows, enters the sea west of Klebang Selatan Island on the western side of Malacca City. East of the river mouth are protected areas including wildlife reserves such as Upeh Island and marine protected areas such as Sultan Iskandar Marine Park. These waters contain abundant coral, mangroves, and seagrass and are habitats for threatened species including Hawksbill Turtle (*Eretmochelys imbricata*) (CR: Critically Endangered) and Dugong (*Dugong dugon*) (VU: Vulnerable).

If contaminated water were to be released from the Waste to Energy facility in an unforeseen event, it could reach these marine areas via the Leleh River. However, because the areas are more than 10 km away, we believe the impact would be very limited.

Based on these factors, we assessed the significance of this facility's location as Low.

Water Business: Ranger Uranium Mine (Kakadu, Northern Territory, Australia)

The uranium ore processing plant to which the Kanadevia Group has delivered a wastewater treatment facility is adjacent to Kakadu National Park and three KBAs: Arnhem Plateau, Alligator Rivers Floodplains, and Kakadu Savanna. These areas, particularly freshwater habitats, support species listed as threatened on the IUCN Red List, including a species of family Palaemonidae within the order Decapoda of crustaceans (*Leptopalaemon glabrus*)(CR), the White-throated Grasswren (*Amytornis woodwardi*) (EN: Endangered), Red Goshawk (*Erythrotriorchis radiatus*) (EN), Sharp-tailed Sandpiper (*Calidris acuminata*) (VU), and Black-necked Stork (*Ephippiorhynchus asiaticus*) (NT: Near Threatened).

The habitats of these organisms - particularly *Leptopalaemon glabrus*, the Sharp-tailed Sandpiper, and Black-necked Stork, which inhabit river, brackish-water, and tidal-flat environments - can be materially altered by river-water quality. Accordingly, if wastewater from the processing plant were discharged untreated into the river, the resulting ecological harm could be serious.

The Group's wastewater treatment facility treats mine wastewater and prevents pollution in receiving rivers. In other words, we believe the introduction of the wastewater treatment facility has improved river water quality compared with conditions before installation. In this respect, we believe the facility is aligned with the nature positive concept of "halting and reversing the loss of nature."

On the other hand, if an environmental accident were to raise the pollution level of plant effluent, there would be concern about harm to the organisms described above. This indicates that the Group's wastewater treatment facility requires high-quality facilities and management to ensure stable operation.

We therefore assessed the significance of this facility's location as Very High. The plant is also almost adjacent to Warddeken, an Indigenous Protected Area. Although it is not clear how mine wastewater relates to water used by Indigenous communities for daily life, we believe the Group's wastewater treatment facility, which appropriately treats mine wastewater, also plays an important role in preventing risks to Indigenous people, including health and radiation-related risks.



Figure 4-6: Ranger Uranium Mine Wastewater Treatment Facilities, etc.

Water Business: Alumina Refinery (Gladstone, Queensland, Australia)

The alumina refinery to which the Kanadevia Group has delivered a wastewater treatment facility is located approximately 8 km from Garden Island Conservation Park. Offshore lies the Great Barrier Reef, a marine protected area designated as a World Natural Heritage site.

The alumina refinery previously experienced wastewater overflow caused by a cyclone and was forced to limit production capacity to 50%. The Group's wastewater treatment facility was introduced as a countermeasure. Close on-site coordination enabled rapid installation and a return to normal operation.

Wastewater overflowing from the refinery may previously have entered the ocean via rivers and other waterways and adversely affected the marine protected area described above. We believe the introduction of the Group's wastewater treatment facility has reduced that impact. Accordingly, we also regard this project as aligned with the nature positive concept of “halting and reversing the loss of nature.”

A key factor in this project was the rapid deployment of the wastewater treatment facility, which demanded a high level of technical capability in equipment procurement and facility commissioning. Based on these factors, we assessed the significance of this facility's location as Very High.

Infrastructure Business

Amagase Dam (Uji City, Kyoto Prefecture, Japan)

Amagase Dam, to which the Kanadevia Group has delivered hydraulic gates, is located on the Uji River in the upper reaches of the Yodo River system. The Uji River is the habitat for threatened species on the IUCN Red List, including fish such as Striped Bitterling (*Acheilognathus cyanostigma*) and Deepbodied Bitterling (*Acheilognathus longipinnis*) (both EN), the Japanese Giant Salamander (*Andrias japonicus*) (VU: Vulnerable), and the dragonfly “Naniwa-tombo” (*Sympetrum gracile*) (NT).

Changes in water volume caused by operation of the dam's hydraulic gates affect the Yodo River system downstream. Maintaining the gates so that they operate appropriately is therefore important from the perspective of impacts on nature. Based on these factors, we assessed the significance of this facility's location as High.

Carbon Neutral Solution Business

Wind Power Generation Business: Hibikinada Offshore Wind Farm (Fukuoka Prefecture, Japan)

The Hibikinada Offshore Wind Farm, to which the Kanadevia Group delivered floating wind power equipment, is located approximately 4 km from the Shirashima Wildlife Protection Area Special Protection Zone. The area is the habitat for threatened bird species on the IUCN Red List, including Japanese Murrelet (*Synthliboramphus wumizusume*) (VU) and Streaked Shearwater (*Calonectris leucomelas*) (NT). The Japanese Murrelet, together with the Black Wood-Pigeon (*Columba janthina*), is also designated as a Natural Monument in Japan.

Because these birds and predatory raptors such as Peregrine Falcon (*Falco peregrinus*) and Osprey (*Pandion haliaetus*) (both LC) fly over the sea, there are concerns about bird strikes and habitats degradation associated with the installation of offshore wind power facilities.

The Japanese Murrelet also feeds and rests in these waters, so the installation and operation of the floating structures supplied by the Group may affect these species.

In this way, the installation and presence of offshore wind power facilities may affect marine ecosystems and habitats depending on the characteristics of the installation area and surrounding environment. For potential negative impacts associated with such facilities, maximum efforts should be made to avoid and minimise impacts on ecosystems in accordance with the AR3T framework[80]. Based on these factors, we assessed the significance of this facility's location as High.

(6) Insights Gained from the Location Analysis

The location analysis confirmed that, for the Kanadevia Group, the significance of nature-related matters is not limited to its own factories and business sites, but also arises at locations where products and services supplied to customers are installed and operated over the long term. In particular, water treatment facilities, WtE facilities, floodgates, and wind power generation facilities have nature-related materiality that varies by location in relation to land use, water quality, ecosystems, and habitats of rare species.

At the same time, these products and services also contribute to reducing environmental impacts and conserving the natural environment within local communities through activities such as waste treatment, wastewater treatment, water management, and the supply of renewable energy. Accordingly, what is important for the Group is not merely the delivery of products and services, but also supporting their stable and appropriate operation over the long term, taking into account the impacts they have on local natural environments and society.

Going forward, the findings from the analysis of significant locations will be utilised to identify nature-related risks and opportunities for each business, to confirm the importance of operation and maintenance at customer facilities, and to consider response strategies for downstream activities within the value chain.



Figure 4-7: Japanese Murrelet (© Wild Bird Society of Japan)

4.4 Preliminary Mapping of Dependencies and Impacts Related to People & Society

(1) Basic Approach

People- and society-related dependencies and impacts are interrelated with climate- and nature-related dependencies and impacts, as well as business and financial risks. For example, extreme heat and natural disasters associated with climate change affect occupational health and safety at work sites and regional resilience. The transition to decarbonisation and a circular economy can change employment, skills, procurement structures, and local economies. In regions with high pressures on natural capital, human-rights and labour risks in the supply chain may also overlap.

Through social infrastructure related to waste treatment, water, energy, disaster prevention, decarbonisation, and other areas, the Kanadevia Group reduces local environmental impacts while supporting people's health, safety, living foundations, and regional resilience. At the same time, designing, constructing, and operating these businesses so that they function stably over the long term requires the skills and safety culture of own workforce, suppliers' capacity to deliver, and trusted relationships with customers, municipalities, and local communities.

People and society are therefore both affected by Group businesses and essential to supporting value creation. Beginning with the positive and negative impacts of our businesses on people and society, as well as our dependencies on human and social capital, this section outlines the resulting risks and opportunities.

Inequality and Distribution Perspective

Issues concerning people and society need to be considered not only in terms of individual human rights and well-being, but also from **the perspective of how the benefits, burdens, resources, opportunities, and access to social infrastructure associated with business are distributed among different people and groups**. In this report, we refer to this as the "**inequality and distribution perspective**."

Social infrastructure provided by the Kanadevia Group in areas such as waste treatment, water, energy, and disaster prevention contributes to sanitation and public health, living environments, safety and security, local employment, access to energy and water, and disaster-response capacity. However, the benefits and burdens of the same business do not necessarily arise equally for everyone. Effects related to facility siting, construction and operation—such as noise, traffic, emissions, land and water use , fees and other cost burdens, and changes in employment and skills—may be disproportionately borne by residents near facilities, people working for contractors, business partners with limited capacity to respond, and people facing constraints in accessing services.

When assessing people- and society-related impacts, the Group therefore considers: (1) who receives the benefits of the business and who bears the burdens; (2) whether benefits or burdens are concentrated in particular regions, people, or groups; (3) whether the business could widen or narrow existing disparities in income, health, employment, living environments, information, skills, or access to social infrastructure; and (4) whether people in vulnerable positions can access dialogue, decision-making, grievance, and remedy processes.

In the 2026 report, these issues are assessed on a preliminary basis to the extent they can be identified through existing human rights due diligence, business partner surveys, occupational health and safety, engagement surveys of own workforce, and dialogue with communities and customers. The Group will develop assessment methods for major businesses and projects that consider the distribution of benefits and burdens, the attributes of affected people, and social vulnerability[81)].

The "just social implementation" sought by the Group means implementing technologies and businesses that help solve climate- and nature-related issues while respecting the safety and rights of people affected, in forms that customers and local communities can continue to use. It is essential to integrate dialogue, prevention and mitigation, remediation, and remedy into business processes so that benefits and burdens are not disproportionately borne by specific regions, workers, users, or vulnerable groups.

Table 4-3: Pilot Mapping of Dependencies and Impacts Related to People & Society from the Perspectives of Inequality and Distribution

People and stakeholder groups	Dependencies	Key benefits and positive impacts	Key burdens and negative impacts	Inequality and distributional considerations	Further information required
Own workforce	Engineers, skilled and operational personnel, global talent; quality and safety culture; psychological safety; skills and knowledge transfer	Job creation; skills development; rewarding work; health and safety investment	Occupational accidents; overwork; harassment; unequal opportunities	Differences in safety, health, development, promotion, pay and voice by employment type, role, location or characteristics	Safety, health, development and engagement data by attribute and site, together with skill maps.
Value chain workers	Supplier capabilities, quality, delivery, ethics and occupational safety	Continued business; improved skills and quality; business opportunities	Excessive workloads; unilateral delivery/specification changes; unfair pricing/payment terms; human rights and labour issues	Unequal burdens linked to bargaining power, company size, indirect employment, payment terms or migrant status	Additional SAQs and interviews, working-time management, occupational safety, and access to remedy.
Affected communities	Community trust; engagement with authorities/residents; local talent; social licence to operate	Public health; local jobs; access to essential infrastructure; disaster preparedness	Noise; traffic; emissions; land/water use; landscape impacts; charges and costs	Exclusion of vulnerable groups from benefits; disproportionate burdens on particular groups or nearby residents	Project-specific stakeholder maps, information on benefits and burdens, grievances, and records of dialogue.
Customers and users	Customer trust; user needs; continued use and contractual relationships	Safe, continuous services; essential infrastructure; disaster response	Accidents; service disruption; inadequate information; restricted access	Unequal access or use; disproportionate impacts of disruption or restrictions	User safety, service interruptions, access, satisfaction, complaints, and related information.
Investors and financial institutions	Capital-market confidence and funding; trust through integrated climate, nature and social disclosure	Sound investment/financing; long-term dialogue; social and economic value; stable returns	Investment/financing withdrawal; weaker dialogue; information asymmetry; lower returns; valuation risk	Unequal distribution of benefits and burdens from investment and financing	Disclosure of information on inequality and distribution at recipients of investment and finance.

(2) Implications from Supply Chain Human Rights Due Diligence and Business Partner Surveys

Human rights and labour issues in the supply chain are not standalone compliance issues; they are strategic matters affecting procurement stability, quality, delivery schedules, trusted relationships with business partners, and business continuity. The Kanadevia Group is advancing its understanding of people- and society-related dependencies, impacts, risks and opportunities in the supply chain through human rights due diligence based on its Human Rights Policy and through business partner surveys.

In the 2026 supplier human rights due diligence, we combined existing GCNJ SAQ responses, country risk, human-rights issues likely to arise by industry, and disclosures by peer companies to prioritise suppliers for additional confirmation. This evaluation does not indicate that human-rights violations have occurred at individual companies; it is a screening process for setting priorities for dialogue and confirmation.

In the business partner compliance survey, we reviewed our transaction practices and those of responsible personnel from the perspective of business partners. The survey examined written ordering and acceptance, order information, prices, delivery schedules and specifications, workload, quality requirements, payment and inspection, compliance, consultation channels, trust, satisfaction, and other matters. The results confirmed a certain overall level while also identifying matters requiring further review for improvement, including workloads and unilateral changes to delivery schedules.

These analyses confirmed that **human-rights and labour issues in the supply chain are not issues only for procurement or compliance departments, but important management issues affecting business stability, quality, delivery schedules, costs, and trust with business partners**.

In particular, ordering terms, specification changes, delivery schedules, prices and payment terms, audits, and safety requirements can affect the working conditions of people at business partners while also affecting our own execution capability.

It is therefore essential to address procurement stability and human-rights and labour considerations together. To enhance the reliability of the overall supply chain, we need to deepen dialogue with business partners through additional SAQs, interviews, advance consultation when transaction terms change, careful communication when delivery schedules or specifications change, and improvements to the accessibility and clarity of consultation channels. These initiatives go beyond risk reduction and can contribute to stable supply, higher quality, on-time delivery, and stronger co-creation relationships.



(3) Locations Important for People & Society and Strategic Implications

Impacts on people and society vary significantly depending on national and regional legal systems, employment practices, social vulnerability, facility location conditions, and business models. In addition to nature-related priority locations, this report provisionally identifies locations where impacts on human rights, labour, and local communities are more likely to materialise as “people- and society-related priority locations.”

For the Kanadevia Group, in regions where Waste to Energy (WtE) and Waste to X (WtX) facilities are important and dependence on open dumping is high, nature-related impacts such as GHG emissions, land use, and leakage of waste need to be considered in an integrated manner together with sanitation, health, local employment, access to energy, and the distribution of benefits and burdens. Waste treatment and resource-circulation businesses have opportunities to improve local living environments and public health. At the same time, the way burdens associated with facility siting and operation are perceived may influence acceptance by local communities. At construction sites and operating facilities, important issues include occupational safety for own workforce, impacts on local residents from noise, traffic, and emissions, and the safety of facility users.

In water-stressed regions and in areas where water treatment facilities are provided, access to water for daily life, public health, the rights of local residents, and service continuity are important in addition to water quality, ecosystems, and freshwater use. While the Water Business contributes to reducing environmental impacts, it is also closely connected to community livelihoods, health, and safety. Accordingly, business operations need to take into account trust with local communities and the continuity of essential services.

Because the Infrastructure Business interacts with diverse people throughout the construction, operation, and maintenance phases, on-site safety culture, quality management, and dialogue with local communities are directly linked to business continuity and trust.

In countries and regions where suppliers are located, it is important to overlay country- and industry-specific human rights risks with SAQ results and prioritise business partners requiring additional confirmation. As the geographic scope of the supply chain expands, legal systems, labour conditions, social vulnerability, and environmental impacts become increasingly diverse. Analysis of supplier countries and regions should therefore be positioned not only as a means of identifying procurement risks, but also as a foundation supporting stable supply, quality, delivery performance, and trusted relationships.

The analysis of these people- and society-related priority locations indicates that even **businesses that deliver environmental benefits may face risks to business continuity and social acceptance if they do not adequately consider the safety, rights, and livelihoods of local communities, as well as the distribution of benefits and burdens**. Identifying people- and society-related priority locations is therefore not merely a risk-management exercise; **it is a strategic prerequisite for ensuring that environmental and decarbonisation businesses are implemented in a fair and socially responsible manner.**

4.5 Scenario Analysis

(1) Setting Climate Scenarios

The following section presents climate scenarios and analytical results in line with TCFD.

For climate scenarios, we use two cases: a 1.5°C above pre-industrial conditions scenario (hereinafter, 1.5°C scenario) that pursues environmental targets substantially more stringent than today and a 4°C above pre-industrial conditions scenario (hereinafter, 4°C scenario) representing a world with higher emissions than today. We compare both with a continuation-of-current-trends world in which the median average temperature increase in 2100 is 2.5°C to 3°C.

The **1.5°C scenario** represents a world with strong transition risk from stringent regulation but constrained physical risk. By 2050, Carbon Neutrality has been achieved in many parts of the world and climate change has been contained to a certain degree. As a result, increases in physical risk from natural disasters such as stronger tropical cyclones and flooding caused by heavy rainfall have been restrained. In this scenario, carbon pricing rises in stages; renewable energy is introduced more rapidly than today in countries around the world; and the production and use of green hydrogen[82], green ammonia[82], and e-fuels[83] such as e-methane[84] become active.

Policies supporting decarbonisation are introduced in countries worldwide, and international society is guided towards achieving global low-carbon targets as Net Zero is approached. Investment through sustainable finance also becomes active, with capital flowing to companies that actively address and disclose climate change measures. Procurement materials such as steel and concrete are rapidly decarbonised globally as suppliers adopt renewable energy and decarbonise fuels. Customers are increasingly demanding GHG emission reductions from Kanadevia Group's products and systems and are showing growing interest in businesses that contribute to decarbonisation. AI optimises social energy and material efficiency through demand/supply control and management of the circular economy. Recycling policies achieve targets ahead of schedule; demand for waste incineration at major recycling centres declines and residues are minimised. As combustible waste becomes less readily available, waste collection areas expand geographically.

In the 1.5°C scenario, alternative materials are provided during the process of fuel decarbonisation, and the proportion of plastic waste in total municipal solid waste declines significantly. CO_2 generated during incineration is captured by CCUS. At Waste to Energy facilities, installation of CCUS becomes standard and Waste to X is realised.

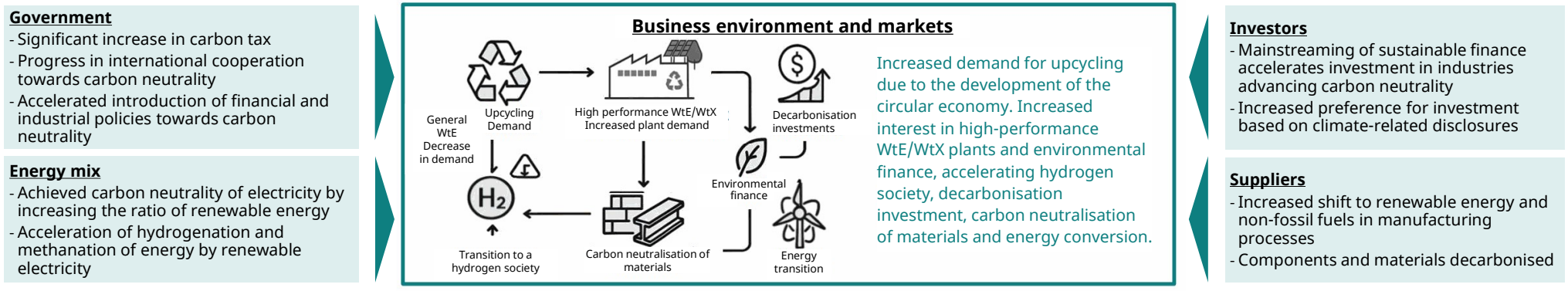


Figure 4-8: Future Social Conditions under the 1.5°C Scenario

By contrast, the **4°C scenario** assumes a world in which GHG emissions increase from current levels and the median average temperature increase in 2100 exceeds 4°C. For example, rapidly increasing energy demand driven by population-driven agricultural expansion, AI demand, industrialisation, and economic growth is met with fossil fuels, reflecting policy choices that prioritise economic growth over decarbonisation.
Policies promoting decarbonisation retreat from current levels, allowing high GHG emissions to continue. Some countries continue to strongly pursue decarbonisation, but countries prioritising economic development do not adopt policies that support it.
Progress in societal decarbonisation varies widely across regions and organisations. Because environmental value is not sufficiently recognised and economic efficiency is prioritised, several non-fossil energy industries do not grow. These include Biogas Power Generation, Biomass Power Generation, renewable power, green hydrogen production, green ammonia production, methanation, and SAF production. CO_2 capture and utilisation industries such as CCS also do not grow. Fuel conversion in thermal power generation also fails to progress sufficiently, leaving continued use of coal and natural gas.

Supply chains face continual risks of operational interruption from frequent extreme heat waves, heavy rainfall, storm surges, and other events. Urban cores shift from coastal areas towards higher ground. In developing countries in Southeast Asia and elsewhere, economic-priority policies direct investment towards the linear economy - producing, distributing, and selling products from natural resources - rather than recycling and resource-circulation sectors. Investment in Waste to Energy/Waste to X as environmental infrastructure remains limited, and lower-cost waste incineration facilities are selected. As waste and plastic volumes continue to increase, demand for incineration at recycling centres rises and high-volume processing and high operating rates are maintained. More frequent compound disasters also increase peak processing burdens. Under these conditions, customer requirements for reducing GHG emissions from the Group's products and systems are expected to remain uneven.
In FY 2025, geopolitical risks materialised, including restraint of climate change measures in the United States, rising GHG emissions associated with worsening conditions in the Middle East, and supply chain fragmentation. These developments do not alter the climate scenarios themselves, but because they point towards a world closer to the 4°C scenario, we believe strategy formulation needs to give greater consideration to the results of that scenario analysis.

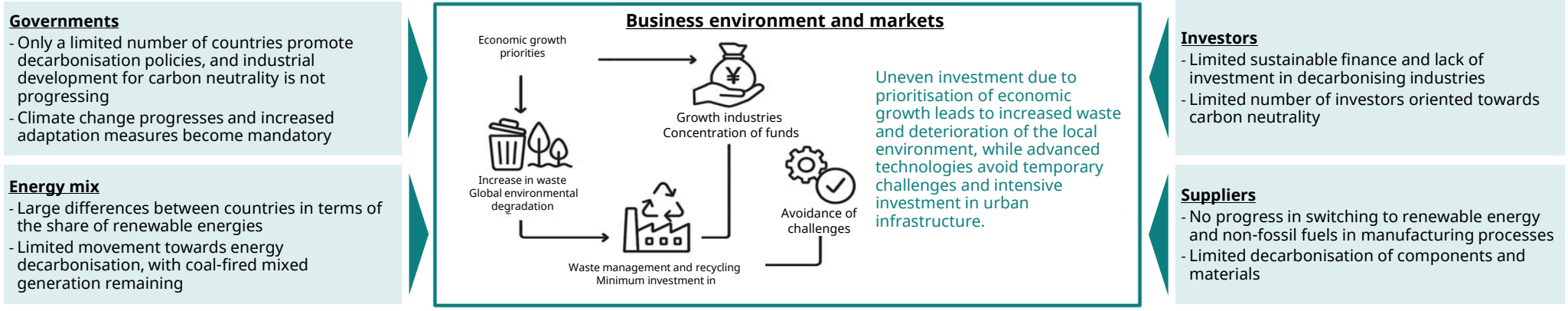


Figure 4-9: Future Social Conditions under the 4°C Scenario

(2) Results of Climate Scenario Analysis

Although the **1.5°C scenario** is considered to have a realisation probability of less than 5%, it is **in line with the Kanadevia Group's vision of net-zero environmental impacts**. In this context, it is incorporated into our strategy as one of the Group's anticipated scenarios. Under such policy and market conditions, the Group's strengths can work to its advantage. Specifically, demand would increase for renewable-energy generation, including wind power, Hydrogen Generation Systems that produce green hydrogen using renewable-energy sources, methanation and gas-upgrading equipment positioned as CCUS solutions for industrial CO_2 emissions, and other solutions. We also expect significant opportunities for the current Carbon Neutral Solution Business, including storage tanks for ammonia and liquid CO_2.

In the Waste to Energy/Waste to X Business**, municipal solid waste generation is expected to peak relatively early** and begin declining, particularly in developed markets. In **developing countries**, by contrast, **circular societies expand** open dumping sites are gradually replaced by Waste to Energy/Waste to X. Waste to Energy/Waste to X businesses are therefore expected to become resource-recovery hubs. Incineration will play a smaller role, while **facilities will increasingly function as reprocessing facilities or factories that serve as recycling centres dedicated to specific resource types**.

Plants are expected to become larger and more sophisticated, with CCU installation standardised. Biogas production through methane fermentation of organic waste also becomes widespread.

In this scenario, high carbon pricing leads both society and customers to pursue Carbon Neutrality, increasing demand for the Carbon Neutral Solution Business. As a result, demand for Hydrogen Generation Systems and methanation-related technologies increases, accelerating the transition to alternative fuels. Fuel conversion also extends to marine-engine fuels, increasing orders for marine engines compatible with new fuels and improving the likelihood of success for the Carbon Neutral Solution Business. At the same time, heightened environmental awareness may concentrate investment in circular-economy fields, attracting entrants from many directions and intensifying innovation and competition. **Continuous innovation is necessary to maintain a strong position over the long term.**

In procurement, **decarbonising steel** used across most Group businesses is important. Under the 1.5°C scenario, customers require the use of decarbonised and recycled steel. Through procurement strategy, inventory management, and supplier management, the Group will work with suppliers to decarbonise key materials and increase recycled content in product design.

The **4°C scenario** is likewise an extreme scenario with an estimated probability of around 5%. With regard to physical risk from the natural disasters assumed under this scenario, risks include disruption or stoppage of supply systems - including production and transportation in procurement - due to flooding, as well as suspension of factory operations. In wastewater treatment businesses, flooding may cause untreated water to overflow, potentially worsening the environment and creating negative business impacts.

For transition risk, the Carbon Neutral Solution Business - including methanation, hydrogen, CCUS, Wind Power Generation, and casks for nuclear power plants - would be strongly negatively affected. In other words, **if social momentum towards decarbonisation declines, some investments in these businesses may not be recovered**.

On the other hand, in the Waste to Energy Business, more frequent compound disasters and increasing waste volumes associated with economic growth are expected to raise demand for larger and more robust Waste to Energy facilities. In the Infrastructure Business, increasingly severe natural disasters are expected to **increase demand for more resilient infrastructure, including new Flap Gates**. Demand for seawater desalination is also expected to rise in regions experiencing increasing water scarcity. Most plants constructed by the Group are robust facilities, so direct damage is expected to be limited.

(3) Setting Nature Scenarios

The following section presents nature-related scenarios and analytical results in line with TNFD.
For nature, following TNFD recommendations, we set out four scenarios using "Physical risk" on the horizontal axis and "Transition risk" on the vertical axis (**Figure 4-10**).

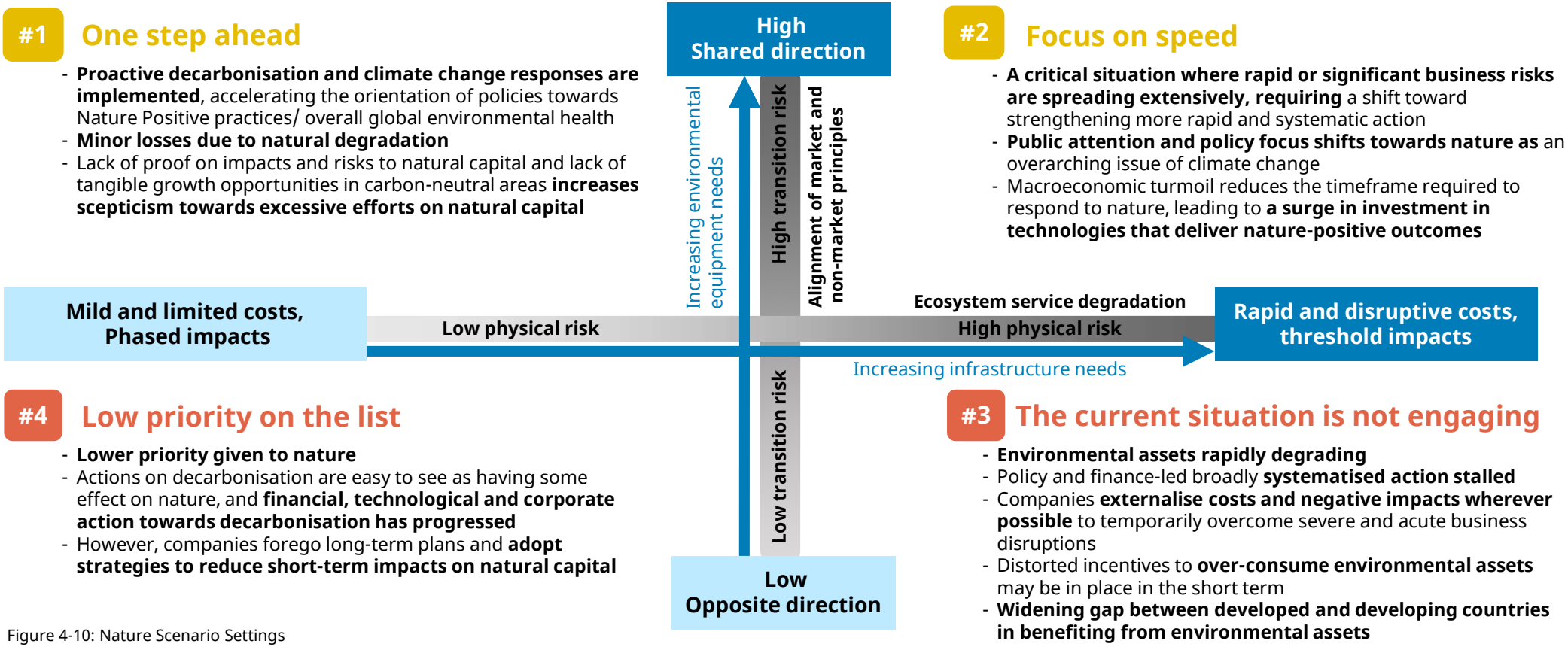


Figure 4-10: Nature Scenario Settings

The left side of the horizontal axis represents scenarios in which environmental "Physical risk" in a region is constrained. The right side represents the opposite: scenarios with high risks from stronger tropical cyclones, flooding caused by heavy rainfall, drought, degradation of soil and biodiversity, and other factors. The lower part of the vertical axis represents scenarios with low "Transition risk," where economic growth is prioritised and failure to transition towards greater environmental consideration is not itself regarded as a problem. The upper part represents scenarios with high "Transition risk," where failure to transition towards decarbonisation and nature positive approaches can lead to penalties or reputational consequences in the local community. **Environmentally conscious regions such as Europe and Japan are more likely to correspond to the upper-left quadrant (#1), while developing countries prioritising economic growth are more likely to correspond to the lower-left quadrant (#4)**. Because the Kanadevia Group proposes and installs environmental plants around the world, identifying the applicable regional scenario is important to business strategy.

Today's society is moving along a "2-3°C scenario" and, due to geopolitical risks, is shifting more rapidly from the centre towards the right side of the horizontal axis. As per-capita GDP rises with economic growth, environmental awareness also tends to increase, moving regions upwards on the vertical axis. Accordingly, **towards 2040-2050**, climate change tends to intensify under scenarios of 1.5°C or higher, while continued expansion of the global economy moves societies upward, suggesting a gradual shift **towards the upper-right quadrant (#2)**.

#1 represents a society in which people are highly aware of future environmental crises. Because society is not yet facing an actual severe crisis, it strengthens a variety of preventive preparations.

#2 represents a society in which environmental crises are actually occurring and awareness of environmental problems is high, resulting in layered investment in a wide range of measures to flexibly avoid or respond to environmental crises.

#3 represents a region facing an environmental crisis while pursuing an economy-first approach. Under an economy-first approach, weakened regional natural capital can amplify damage from environmental crises, increasing risk. If damage becomes severe enough, the region may no longer be able to withstand it and may transition towards society #2.

#4 is an economic-growth-oriented scenario. Decarbonisation and circular-society initiatives are not high priorities, while degradation of the natural environment is not yet severe, so environmental responses are postponed. As a result, natural capital continues to deteriorate chronically.



(4) Results of Nature Scenario Analysis

Because the Kanadevia Group has relatively low dependencies with respect to nature-related "Physical risk" on the horizontal axis, negative impacts on operations are limited. At the same time, as conditions move farther to the right, plants with greater resistance to Physical risk are required, increasing the Group's market competitiveness and opportunities. For nature-related "Transition risk" on the vertical axis, the higher conditions move - in other words, the greater the awareness of environmental issues - the stronger demand becomes for the Environment Business and Carbon Neutral Solution Business, including Waste to Energy and wastewater treatment. Conversely, because the Group specialises in high-quality, higher-priced products and services, if Transition risk declines - meaning interest in environmental issues declines - there is a risk of losing market share to lower-cost waste-incineration plants. Unlike Waste to Energy facilities, such incinerators do not convert waste into electricity or energy, resulting in lost climate-related opportunities.

In summary, **the greater the social momentum towards Net Zero and nature positive outcomes, the more the Group can pursue growth aligned with its vision of "net-zero environmental impacts", centred on the Environment Business and Carbon Neutral Solution Business**. If that **momentum is low, growth in the Carbon Neutral Solution Business may be limited; however, investment in industrialisation and infrastructure development, particularly in developing countries, may support business growth in existing businesses - Environment Business, Machinery Business, and Infrastructure Business**.

(5) Implications for People & Society from Climate and Nature Scenarios

Key Insights from the Scenario Analysis

Climate and nature scenario analysis is conducted primarily to understand the effects of Physical risk and Transition risk on business. At the same time, these scenarios also provide important insights into people and society. Progression of climate change and degradation of natural capital can affect occupational safety of own workforce, supply chain stability, regional resilience, and service continuity for customers and users. The transition to decarbonisation and nature positive outcomes can also influence expectations and decisions of customers, municipalities, investors, business partners, and local communities, affecting contract opportunities, investment decisions, and social acceptance.

Under the 1.5°C scenario, policies, customer requirements, and investor expectations related to decarbonisation increase, and adoption of renewable energy, green hydrogen, green ammonia, e-Methane, CCUS, and other solutions is expected to progress.

In such a society, providing technology and equipment alone is not sufficient: procurement of low-carbon materials, collaboration with suppliers, securing skilled personnel, and strengthening capabilities for design, operation, and maintenance become important. The 1.5°C scenario therefore illustrates not only opportunities for decarbonisation-related businesses, but also the importance of human capital, supply chains, and trusted relationships with business partners in determining execution capability.

Under the 4°C scenario, more frequent and severe natural disasters may affect procurement, production, transportation, factory operations, and facility operations. More frequent compound disasters and increasing waste volumes associated with economic growth may also increase demand for larger and more robust Waste to Energy facilities; increasingly severe natural disasters may raise demand for more resilient infrastructure; and demand for seawater desalination may rise in regions experiencing increasing drought. These developments show that adaptation to climate change is directly linked to community safety, disaster prevention, public health, water access, and service continuity. The 4°C scenario therefore indicates the importance of the Infrastructure Business not only for responding to physical risk, but also for supporting regional resilience.

Nature scenarios show that business environments differ by region depending on combinations of Physical risk and Transition risk. In environmentally conscious regions, failure to transition towards decarbonisation or nature positive outcomes may lead to regulatory, penalty, or reputational consequences. In regions prioritising economic growth, environmental value may not be sufficiently reflected in prices, creating competition with lower-cost equipment. This shows that climate- and nature-related business opportunities are strongly influenced by local values, economic conditions, regulatory environments, and social acceptance.

Implications for Strategy and Future Enhancement

This scenario analysis confirms that the resilience of the Kanadevia Group's strategy depends not only on technical and equipment response capabilities, but also on people with critical skills, the safety of own workforce, suppliers' response capabilities, trust with local communities, customer and user safety, and service continuity. In particular, when the transition to decarbonisation and resource circulation accelerates, skills, people, and supply-chain capabilities become important to execution; when the physical impacts of climate change intensify, occupational safety, local communities, and service continuity become critical factors in the ability to execute the strategy.

In the 2026 report, the Group does not establish a standalone scenario for people and society; instead, it uses impact pathways for people and society derived from climate and nature scenarios on a preliminary basis. The Group will enhance the assessment method in light of future development of TISFD guidance on scenario analysis.

The next section builds on the scenario analysis above and the people- and society-related dependencies, impacts, risks and opportunities presented in **Section 4.4**. It examines how climate-, nature-, and people- and society-related risks and opportunities may affect costs, sales, business opportunities, operational continuity, financing terms, and other financial dimensions.

4.6 Analysis of Financial Impacts Related to Climate, Nature, and People & Society

(1) Premises of the Analysis: Differences in Scope and Maturity

Building on the natural-capital analysis in **Section 4.3** and the people- and society-related preliminary mapping in **Section 4.4**, this section examines potential financial effects. It considers costs, sales, business opportunities, operational continuity, cash flows, financing terms, and other financial dimensions.

However, climate and nature differ from people and society in the scope of dependencies, impacts, risks and opportunities analysis, available data, evaluation methods, and maturity of analysis. For climate and nature, we organise relationships with business activities relatively concretely based on our previous TCFD/TNFD initiatives, environmental data, scenario analysis, assessments of dependencies on and impacts on natural capital, and location analysis. In particular, for GHG emissions, water use, discharge of solid waste during operation, and environmental impacts associated with mineral use, we confirm risk factors and the direction of potential financial impacts.

By contrast, analysis related to people and society is a Preliminary Mapping referencing TISFD Beta and does not currently analyse financial impacts at the same scope or level of detail as climate and nature. The preliminary mapping covers own workforce, value chain workers, local communities, customers and users, investors and financial institutions, and other stakeholders. It uses currently available information from human rights due diligence, business partner surveys, occupational health and safety, our people's voices, and dialogue with communities and customers. We are therefore not yet at a stage where all stakeholders are comprehensively evaluated using the same method and quantified financial impacts are calculated.

Accordingly, this section presents climate- and nature-related risks as financial risk analysis based on existing analytical results. For people- and society-related risks, rather than estimating quantified financial effects, we map financial impact pathways leading through execution capability, procurement stability, quality, delivery schedules, social acceptance, customer and user safety, service continuity, trust, and financing terms.

People- and society-related risks do not arise in isolation; they may overlap with climate- and nature-related risks and affect financial outcomes. For example, extreme heat and natural disasters affect occupational health and safety, continuity of construction and operations, supply chain stability, and regional resilience. The transition to decarbonisation and a circular economy changes required skills, employment, supplier capabilities, procurement conditions, and local economies. Climate- and nature-related risks therefore cannot be fully understood separately from people- and society-related risks.

Based on the above, this section first presents financial risk analysis for climate and nature, then provisionally maps financial impact pathways related to people and society. It then considers financial impacts across areas where climate and nature overlap with people and society. This allows us to confirm, also from the perspective of financial impacts, that Kanadevia Group businesses are founded not only on the creation of environmental value, but also on the capability, trust, and connections of people and society.

(2) Financial Risk Analysis Related to Climate and Nature

Based on the assessment results in **Sections 4.2** and **4.3** and the business-strategy direction set out in the 2030 Vision and other plans, the items with high levels of dependency or impact were identified as “GHG emissions” and “environmental impacts associated with water use and mineral use”. We then identified specific risk factors from the perspectives of physical and transition risks and assessed the potential financial impacts of those risks. The results indicated high risk related to “water use” in the design and manufacturing stage and the generation of solid waste in the operating stage. **Figure 4-11** below provides an overview of the financial risk analysis for “GHG emissions”, “water use”, “solid-waste generation during operations”, and “environmental impacts associated with mineral use”, after presenting the risk factors and qualitative financial impacts for each business.

Scenario	Analysis results	Financial risks under the relevant scenario	Adaptation measures for the relevant scenario
#1 1.5°C scenario	**Society with high momentum for Net-zero and Nature Positive = Aligned with vision of net-zero environmental impacts** **Growth centred on environmental and carbon neutral solution businesses**	Growth opportunities through integrated solution provision from WtE to WtX and further to the Circular Economy are expected as a net-zero environmental impacts society develops.	- Faster social implementation of decarbonisation technologies - Expansion of integrated solution business for resource and energy recycling
#2 4°C as a result	**Society forced to face measures to reduce environmental impacts = Aligned with the vision of a Net-zero environmental impacts** **Growth centred on environmental and carbon neutral solution businesses**	Rapid progress towards a society with net-zero environmental impacts and rapidly swelling growth opportunities by providing integrated solutions from WtE to WtX and further to the Circular Economy.	- Faster social implementation of decarbonisation technologies - Expansion of integrated solution businesses for resource and energy recycling - Disaster prevention, mitigation and early recovery technologies and systems, and supply chain resilience
#3 4°C scenario	**Society with low momentum for net-zero and Nature Positive = Increased investment in industrialisation and infrastructure development, particularly in developing countries** **Growth mainly in environmental, machinery and infrastructure businesses**	Low societal environmental awareness will reduce the need for advanced environmental technologies, but economic activity will be strong, so growth will be driven by environmental, machinery and infrastructure businesses. On the other hand, there is a risk of raw material unavailability due to the high physical risks of water resources used in steel production.	- Advancement of WtE technology and water treatment technology to cope with large volumes of waste and wastewater treatment - Develop technologies and systems for infrastructure conservation, disaster prevention and mitigation, and early recovery - Advanced wastewater treatment technology for suppliers, advanced seawater desalination technology - Strengthening of the supply chain
#4 Temperature BAU	**Difficulty in business viability**	Customers and licensors are less environmentally aware, which reduces the need for the Group's advanced environmental technologies, making it difficult to expand and recoup investments.	- Introduction of IoT technologies such as remote monitoring and upgrading of disaster prevention and recovery technologies in preparation for the coming expansion of physical risks - Supply chain resilience

Figure 4-11: Scenario Analysis Results and Financial Risk Analysis

Table 4-4: Businesses/Processes with High Nature-related Risks

Processes		Environment Business					Infrastructure Business	Carbon Neutral Solution Business					Machinery Business	
		WtE	Biomass Power generation	Biogas	Water	WtX		Wind Power	Boilers	Pressure vessel	Casks	Marine Engine	Industrial machinery	Semiconductor equipment
Procurement	Steel manufacturing	v	x	x	x	x	x	x	x	x	x	v		
	Cement production	v	x	x	x	x	x	x						
	Manufacture of special industrial machinery	v	x	x	x	x		x	x			x		
	Logging		v											
	Sawing of timber		v											
	Waste disposal					v								
Design and Manufacturing	Manufacture of special industrial machinery	v											v	
	Manufacture of electronic components													v
	Engine manufacturing											v		
	Boiler manufacturing								v					
	Tank manufacturing									v				

Legend

- VH / H for dependence and impacts
- VH / H for dependence only
- VH / H for impacts only

v Items listed in the analysis results

x Items not mentioned in the analysis results as being equivalent to WtE projects

Table 4-4: Businesses/Processes with High Nature-related Risks (continued)

Processes		Environment Business					Infrastructure Business	Carbon Neutral Solution Business					Machinery Business	
		WtE	Biomass Power generation	Biogas	Water	WtX		Wind Power	Boilers	Pressure vessel	Casks	Marine Engine	Industrial machinery	Semiconductor equipment
Construction	Construction	v	x	x	x	x	x	x						
	Public works						v							
During construction Disposal	Construction	v	x	x	x	x	x	x						
	Waste management	v	x	x	x	x	x	x						
Operation	WtE	v												
	Biomass power generation		v											
	Waste treatment			v										
	Water treatment				v									
	Sewage treatment				v									
	Material reclamation industry					v								
	Purification					v								
	Wind Power Generation							v						
Disposal	Dismantling	v	x	x	x	x	v	x						
	Waste management	v	x	x	x	x	v	x	x	x	v	x	x	x

Legend

- VH / H for dependence and impacts
- VH / H for dependence only
- VH / H for impacts only

v Items listed in the analysis results

x Items not mentioned in the analysis results as being equivalent to WtE projects

Business Risks

The Kanadevia Group operates businesses that design, procure, construct, and deliver equipment such as Waste to Energy and water treatment facilities based on customer RFPs, as well as businesses that manufacture products under licence and deliver them to customers. As a result, there is a risk of delayed response to emerging circular economy trends that are not easily incorporated into existing customer RFPs or licensee perspectives - for example, innovations combining advanced technologies from other fields such as AI and biotechnology, and the bioeconomy—a circular economy based on biomass—that is beginning to develop in South America. If the Group's technologies or products fall behind global standards in cost performance or environmental performance, competitors may gain market share.

In addition, depending on business characteristics, it can be difficult to apply environmental certification schemes that have become de facto global standards. With respect to climate SBTs under the Science Based Targets initiative (SBTi[85]), which use the GHG Protocol[86] even though it does not necessarily provide sufficiently applicable criteria for Waste to Energy, the Group plans to examine in detail whether validation can be pursued in light of future revisions. The Group has set a target of achieving carbon neutrality by 2050 and is advancing a range of measures, while engaging with stakeholders about its current status, including the fact that validation has not yet been obtained. The Group will also consider pursuing validation under SBT for Nature.

Table 4-4 summarises the risks identified for each business.

Environment Business

The Environment Business is primarily affected**, in relation to both climate and nature, by transition risks** associated with environmental policy, the transition to a circular economy, tighter regulation, municipal budgets, subsidy schemes, and customer investment decisions. In addition, physical risks associated with climate change—such as floods, droughts, and compound disasters—may affect social demand for waste treatment and water treatment, continuity of facility operations, and additional response costs.

Municipalities are the principal customers of the Waste to Energy Business. In regions such as developed countries where interest in environmental policy is high and waste incineration facilities are well developed, contract opportunities can arise when municipal budgets and replacement timing for waste incineration facilities align with the Kanadevia Group's business plans.

By contrast, in regions where interest in environmental policy, including the circular economy, is low, demand to replace waste incineration facilities is less likely to emerge and municipal budgets may be constrained. National environmental policy may also stagnate, making government support for environmental-response costs less likely. As a result, understanding of the value of Group innovations, products, and services may fail to advance, potentially slowing business growth.

For the introduction of waste incineration facilities as a response to open dumping, some expansion in demand is expected to continue, whether driven by policy to reduce methane emissions or by the need to respond to increasing waste volumes. If the Group falls behind this expansion in waste incineration deployment, opportunities for market entry may be limited. If government subsidies are structured so that only domestic competitors are eligible, the Group may also be placed at a cost disadvantage.

The amount of waste used as feedstock for Waste to Energy may decline as environmental awareness increases and populations decrease. If the amount of waste requiring incineration falls, demand for Waste to Energy could also decline rapidly. Japan currently has 991 incineration plants[87], for example, but under government policy these are expected to be consolidated and regionalised to approximately one-third of the current number, driving restructuring of the waste-treatment industry. Such changes are important risk factors for the Waste to Energy Business in capturing replacement demand and redesigning its business domain.

The Water Business is also affected by environmental policies and municipal budgets. Where environmental awareness is low, municipal customer budgets may be constrained and understanding of the value of the Group's innovations, products, and services may not advance, potentially slowing business growth.

In regions where water scarcity becomes more severe, demand for water of suitable quality for drinking and industrial use is expected to increase, intensifying market competition. If the Group fails to respond to such expanding demand, market-entry opportunities may be limited. Business growth may also be constrained if responses are delayed in areas such as decarbonisation of energy used for water treatment, compliance with expanding bans and restrictions on chemical use, and the management of high-concentration brine produced during water purification, particularly when operating outside Japan.

For sewage and wastewater treatment, in addition to concerns about decarbonisation and chemical use, it is necessary to respond to tighter regulation of hazardous chemicals contained in treated effluent. Delayed responses could not only affect business growth but also prevent market entry itself.

Physical risks such as water shortages, droughts, deteriorating water quality, and flooding are also important for the Water Business. In water-scarce regions, demand for drinking and industrial water of suitable quality rises, while floods can cause untreated water overflow, environmental deterioration, and additional response costs. Water Business development therefore needs to consider local water stress, flood and drought risks, and stable operation of treatment facilities in addition to environmental regulation and customer requirements.

In this way, climate- and nature-related financial risks in the Environment Business can materialise through multiple factors. These include environmental policy, municipal budgets, facility replacement timing, subsidy schemes, understanding of the value of technologies and services, changes in waste volumes, water shortages, water-quality regulation, energy decarbonisation, chemical regulation, and responses to high-concentration brine and treated effluent. Because these factors affect contract opportunities, price competitiveness, additional response costs, business growth, and market-entry potential, it remains important to respond in light of policy and market trends, changes in the natural environment, and customer needs in each business region.

Machinery Business

The **Machinery Business** is considered more susceptible to **transition risk** than to physical risk. Stronger decarbonisation targets among key customers and tighter regulations on hazardous chemicals may raise environmental-performance requirements for products and technologies. Delayed responses in environmental performance, energy efficiency, resource efficiency, recyclability, chemical management, and related areas could lead to lower customer evaluations, more specification-change work, and fewer contract opportunities.

At the same time, expanding demand in renewable-energy, recycling, resource-recovery, and decarbonisation-related equipment fields can create new contract opportunities for the Machinery Business.

To reduce risks and capture these opportunities, it is important to identify changes in customer decarbonisation policies and environmental regulations at an early stage and continuously improve the environmental performance of products and services.

Infrastructure Business

The **Infrastructure Business** is **primarily affected by climate-related physical risk and transition risk**. Its customers are mainly municipalities, and alignment between municipal budgets and equipment replacement timing and the Kanadevia Group's business plans is important for winning orders. In Japan, municipal budgets for infrastructure maintenance are constrained, so contract opportunities may be limited if replacement demand does not sufficiently materialise.

On the other hand, if climate change increases physical risks from heavy rainfall, storm surges, flooding, drought, and other events, demand may rise for disaster prevention and mitigation, flood control, water utilisation, and more resilient infrastructure. Under the 4°C scenario, increasingly severe natural disasters are expected to increase demand for infrastructure resilience, including installation of new Flap Gates.

Carbon Neutral Solution Business

The **Carbon Neutral Solution Business** is one of the core elements of the Kanadevia Group's response to climate change towards Carbon Neutrality, and is **directly affected by climate-related physical risk and transition risk**. Policy support and institutional development for decarbonisation can expand business opportunities, while uncertainties in the speed of social implementation, fuel prices, infrastructure development, international rules, customer needs, resource procurement, and environmental assessments may affect investment recovery and market entry.

For hydrogen use and CCUS, policy support and institutional development are advancing, but uncertainties remain regarding renewable-energy prices, infrastructure-development costs, securing offtake arrangements, allocation and attribution of GHG emissions across the life cycle, and development of capture, transport, and storage value chains. Continued attention is therefore required regarding market formation and business viability.

For green hydrogen production in particular, high renewable-energy prices and rising infrastructure-development costs are contributing to weaker momentum and delays in social implementation. For methanation, international rules on the allocation and attribution of GHG emissions across the life cycle are still under development.

As a near-term decarbonisation measure, conversion from heavy fuel oil to LNG is progressing, increasing demand for Group LNG storage tanks. These tanks use 9% nickel steel, for which there is only one supplier in Japan. Depending on responses to the adverse impacts of nickel on nature, procurement could become difficult in the future, limiting tank production and causing loss of contract opportunities. This illustrates that even equipment contributing to decarbonisation can face constraints on business opportunities from procurement of the minerals required for manufacturing and from impacts on nature.

Nuclear power is also receiving renewed attention as a decarbonisation option. However, direct disposal of spent casks is difficult because they become radioactive during service. If temporary storage sites or final disposal sites with extremely low radiation impacts cannot be secured, maintaining or expanding the scale of the business may become difficult. In response, electric utilities that are our customers are considering recycling initiatives together with steel manufacturers. Nuclear-related businesses therefore need to consider both their potential contribution to decarbonisation and constraints related to treatment, recycling, storage, and disposal of used equipment and materials.

For onshore wind power equipment, suitable locations for new installations are expected to decrease in the future. Without recycling and maintenance that allow existing equipment to be reused, the business could gradually contract. Installation of wind power facilities also requires extensive studies and time to obtain agreement from local governments and communities. Through rigorous environmental assessment procedures, we investigate in advance impacts on wild-bird habitats, the presence of primary forests - particularly water sources - and potential impacts on them. If a water source is identified, we do not proceed with the installation. We invest funds in stages while assessing commercialisation potential and seek to address issues at an early stage.

Financial risks in the Carbon Neutral Solution Business therefore materialise through multiple factors. These include social demand, policy support for decarbonisation, technology development, customer adoption decisions, development of international rules, renewable-energy prices, infrastructure-development costs, securing offtake arrangements, procurement of mineral resources, treatment of used equipment and materials, environmental assessment, and consensus-building with local communities. Because these factors affect R&D investment, capital expenditure, procurement costs, contract opportunities, maintenance and expansion of business scale, and investment recovery, responses need to reflect the market-formation status and regulatory and social environment of each business.

Factory Operations

Factory operations generate environmental impacts including air emissions, wastewater, noise, and waste. The nature and magnitude of these impacts vary depending on the type and condition of the ecosystems surrounding each factory location. In developed countries such as Japan, legal emission standards are set stringently so that such impacts remain very small, and compliance with these standards is essential in factory operations.

If environmental impacts emitted from a factory exceed statutory limits, possible consequences include fines; costs to restore or modify equipment to reduce environmental impacts; costs associated with criticism or litigation from stakeholders; production delays; and lost sales opportunities due to suspension orders. Environmental accidents and legal violations may also result in lost business opportunities through reduced trust from local communities and impacts on customer confidence.

To prevent these risks from materialising, **environmental conservation committees at each business site** take the lead in promoting **ethical and stable factory operations**, reducing environmental impacts, and appropriately managing ecosystems. At Kanadevia Group factories, environmental management systems such as ISO 14001 are used to reduce resource use and waste volumes, while voluntary standards stricter than legal requirements are established to manage environmental impacts.

In the April 2026 revision of ISO 14001, requirements relating to ecosystem integrity and analysis of risks and opportunities were added; accordingly, the Group will use TNFD-based analysis to enhance initiatives at its factories. Training reflecting the revised requirements has also been provided in internal-auditor development programmes.

We believe this form of factory governance not only helps prevent risks from materialising, but also provides a foundation for stable operations in coexistence with local communities and for connecting those operations to profit generation.

Financial Impacts of Climate- and Nature-related Risks

As described above, climate- and nature-related financial risks are not limited to particular businesses or single environmental items. They can materialise through factors such as environmental policy, tighter regulations, customer requirements, municipal budgets, facility replacement timing, subsidy schemes, procurement of resources and materials, natural disasters, water stress, environmental assessments, and consensus-building with local communities.

Financial impact pathways include higher costs, changes in sales and contract opportunities, impacts on operational continuity, uncertainty in investment recovery, and impacts on financing terms.

On the cost side, potential expenses include procurement of low-carbon materials, changes to equipment specifications, responses to environmental regulation, additional environmental measures, equipment restoration and modification, data development, and preparation for third-party assurance. On the sales and order-opportunity side, demand may expand for decarbonisation, resource circulation, water treatment, disaster prevention and mitigation, and infrastructure resilience, while competition with lower-cost equipment may intensify in regions where environmental value is difficult to reflect in prices.

For operational continuity, floods, droughts, compound disasters, supply chain disruptions, factory shutdowns, and exceedance of environmental emission standards may affect delivery schedules, quality, additional response costs, and customer confidence. In the Carbon Neutral Solution Business, uncertainties in policy support, international rules, renewable-energy prices, infrastructure development, and securing offtake arrangements may also affect the recoverability of R&D and capital investments.

(3) Preliminary Mapping of Financial Impact Pathways Related to People & Society

Positioning of the Analysis

Risks related to people and society do not arise in isolation. Multiple factors can interact and cascade, affecting financial performance through higher costs, reduced sales and contract opportunities, interruption of operations or projects, deterioration in cash flow, changes in financing terms, and other pathways. For example, labour shortages and delays in skills transfer can increase risks to occupational safety, quality, delivery schedules, and compliance. Relationships with human capital, supply chains, local communities, customers, and users are also foundations of business execution capability and social acceptance; if these are impaired, medium- to long-term business opportunities may also be affected.

We have not estimated monetary financial impacts for people- and society-related risks because the data and calculation rules required for comparable Group-wide quantification have not yet been established. We therefore provide a preliminary mapping of the pathways through which risks related to people and society could affect financial performance.

The assessment considers the severity, likelihood, and difficulty of remedying impacts on people, together with exposure in terms of the businesses, business partners, own workforce, and others affected; the implementation status of existing measures; and the time horizon over which impacts may appear. Areas overlapping with climate- and nature-related risks are addressed in the next subsection.

Trial Organisation of System-Relevant Information

Impacts on people and society may extend beyond individual companies or projects. Where similar impacts accumulate across industries, regions, and the broader economy, they may have implications for the stability of social and economic systems. In relation to the Kanadevia Group's businesses, examples may include the effects of skilled labor shortages on the capacity to maintain social infrastructure; the effects of business practices on the sustainability of the supplier base; and the effects of unequal access to, or uneven distribution of the benefits and burdens associated with, essential services such as waste management, water, and energy on regional resilience and social acceptance.

In the 2026 edition, rather than quantitatively assessing these issues as system-level risks, the Group has made a preliminary attempt to identify them as potential impact pathways through which its people- and society-related dependencies, impacts, risks, and opportunities may be connected to broader social and economic systems. **This does not constitute an assessment or quantification of the Group's contribution, causal relationships, or impacts on the system as a whole.** Going forward, the Group will further enhance its assessment as necessary, taking into account developments in TISFD methodologies.

Impacts on Business Execution Capability and Procurement Stability

Difficulties in recruiting people and delays in skills transfer can lead to higher recruiting, outsourcing, and training costs; construction delays; constraints on order intake; quality-response costs; and lost opportunities. Engineers and skilled workers, operation and maintenance personnel, global talent, and other professionals support execution capability at every stage from design and manufacturing to construction, operation, and maintenance. Shortages of these people or delays in skills transfer can cascade into occupational safety, quality, delivery, and compliance and may affect stable project execution and the ability to capture contract opportunities.

Occupational Health and Safety and health-related risks also directly affect business execution capability. Serious accidents, excessive working hours, or health problems may result in suspension of operations or construction, compensation and restoration costs, additional safety measures, higher insurance premiums, delivery delays, and impacts on customer confidence. In businesses involving on-site work, ensuring the safety of our own workforce is a prerequisite for operational continuity and quality assurance.

Human-rights and labour problems in the supply chain, inadequate management of transaction terms, or unilateral changes in delivery schedules and specifications can lead to supply stoppages, alternative procurement, higher inventory and logistics costs, construction delays, legal-response costs, and loss of trust with business partners. Ordering conditions, prices and payment terms, delivery schedules, specification changes, and safety requirements can affect the working environment and workloads of people at business partners while also affecting the Kanadevia Group's procurement stability, quality, delivery schedules, and costs.

Accordingly, human-rights and labour issues in the supply chain need to be viewed not merely as matters for procurement or compliance departments but as important pathways affecting business continuity and financial performance. Conversely, fair transactions, dialogue with business partners, improvement support, and the development of sustainable supplier partnerships can contribute to stable supply, improved quality, on-time delivery, and more resilient supply chains.

Impacts on Trust, Social Acceptance, and Financing

If **negative impacts such as human-rights violations, harassment, discrimination, or inequality materialise, responses** may be required in areas including investigations, remediation and remedy, litigation and regulatory action, turnover and recruitment, organisational culture, and brand, affecting both costs and business execution capability. These risks are not limited to isolated compliance issues; they also affect psychological safety, engagement, retention, leadership, and organisational culture. Over the medium to long term, they may affect the business foundation through deterioration of human capital, reduced recruiting competitiveness, and loss of trust in the Company.

Relationships with local communities, customers, and users are also important financial-impact pathways. Insufficient community dialogue, accidents, or service interruptions may affect permitting, construction schedules, design changes, additional measures, compensation, contract renewals, and social acceptance. Waste treatment, water treatment, disaster prevention, energy, and similar businesses are closely connected to local living environments, public health, safety, disaster response capabilities, and service continuity. If insufficient consideration is given to safety during construction and operation, noise, traffic, emissions, land and water use , and the distribution of benefits and burdens, community trust may decline, leading to project delays and additional response costs.

In addition, **trust and compliance** are also important considerations. Misconduct or failure to meet accountability expectations may affect investigation and remediation costs, lost orders and lower contract-renewal rates, engagement, capital-market evaluations, and financing terms. Insufficient explanation of human rights, safety, quality, compliance, supply chain management, and consideration for local communities may also affect evaluations and dialogue with investors and financial institutions.

Conversely, demonstrating pathways for reducing and improving risks related to people and society can support long-term trust and strengthen the financing base.

As described above, at present it is appropriate to understand financial impacts related to people and society not as monetised financial risks, but as pathways leading through business execution capability, procurement stability, quality, delivery schedules, community acceptance, customer confidence, and financing terms. We will continually verify these pathways through human rights due diligence, business partner surveys, occupational health and safety, our people's voices, and dialogue with communities and customers, and use the findings to enhance management processes, metrics, and targets.

(4) Financial Impacts Where Climate and Nature Overlap with People & Society

Approach to Overlapping Risks

In actual business operations, climate- and nature-related risks and people- and society-related risks do not arise as clearly separable categories. Physical risks from climate change and degradation of natural capital affect not only facilities, equipment, and supply chains, but also people working on site, local communities, customers and users, and business partners. Likewise, the transition to decarbonisation and a circular economy involves not only changes in technology and equipment, but also changes in required skills, employment, procurement structures, and relationships with local communities.

In areas where climate and nature overlap with people and society, financial impacts may appear in multiple forms rather than as a single cost item. These include additional-response costs, construction delays, operational shutdowns, alternative procurement, quality-response costs, impacts on contract renewals, reduced social acceptance, and changes in financing terms.

Key Areas of Overlap

First, physical risks such as extreme heat, heavy rainfall, flooding, and drought affect occupational health and safety, working conditions at sites, continuity of construction and operations, and regional resilience. Extreme heat, for example, can increase health risks for on-site workers and lead to additional safety measures, adjustments to working hours, and schedule delays. Flooding and compound disasters can cause facility shutdowns, supply chain disruptions, and impacts on community foundations of daily life, which may in turn affect restoration costs, delivery schedules, and customer confidence.

Second, the transition to decarbonisation and a circular economy affects not only technology development and capital investment, but also human resources, skills, employment, and the capabilities of business partners. Advancing businesses involving low-carbon material procurement, CCUS, hydrogen, methanation, resource recovery, and other areas requires new expertise, operation and maintenance capabilities, and collaboration with suppliers.

Delays in developing these capabilities may lead to higher recruitment and training costs, increased outsourcing costs, lost contract opportunities, and delayed investment recovery. Conversely, accumulating the necessary skills and enhancing capabilities together with business partners provide a foundation for greater competitiveness in decarbonisation and resource-circulation businesses.

Third, water risk is an important point of intersection between natural capital and people and society. Water shortages, droughts, deterioration in water quality, and flooding can increase demand for water treatment, drinking-water supply, sewage, and wastewater treatment while also affecting community living foundations, public health, customer and user safety, and service continuity. Problems in water-treatment operations or wastewater management may lead to additional response costs, compensation, operational constraints, and loss of community trust. Water-related businesses therefore need to understand impacts on the natural environment and local communities together.

Fourth, environmental assessments and consensus-building with local communities affect the feasibility of implementing climate- and nature-related businesses. In Wind Power Generation, waste treatment, water treatment, disaster prevention, and Infrastructure Businesses, impacts on the natural environment, land and water use, noise, traffic, landscape, and the distribution of benefits and burdens within communities affect social acceptance. Insufficient consensus-building can delay permitting and construction and require design changes, additional studies, additional measures, or changes in contract conditions, resulting in higher costs and delayed investment recovery.

Fifth, procurement of mineral resources and low-carbon materials is an area where impacts on nature overlap with human-rights and labour issues in the supply chain. In procurement of steel, nickel, catalysts, machinery, and other materials, inadequate responses to nature-related impacts from resource extraction and processing or to labour and human-rights issues in the supply chain may create procurement constraints. They may also lead to higher costs, delivery delays, failure to meet customer requirements, and lower evaluations by investors and financial institutions. Advancing decarbonisation therefore also requires simultaneously improving the stability and sustainability of materials procurement.



Connection of Financial Impacts to Strategy

As described above, in areas where climate and nature overlap with people and society, risks affect not only costs and operational shutdowns, but also business execution capability, procurement stability, social acceptance, customer confidence, and financing terms. At the same time, these overlaps are closely related to Kanadevia Group business opportunities. Adaptation to climate change, resource circulation, water treatment, disaster prevention and mitigation, decarbonisation, and enhanced regional resilience are all areas where responses to the natural environment and provision of value to people and society are integrated.

Understanding financial impacts where climate and nature overlap with people and society is therefore a prerequisite not only for reducing risks, but also for justly implementing the Environment Business and Carbon Neutral Solution Business in society and connecting them to long-term business opportunities. The next section assesses opportunities related to Climate, Nature, and People & Society in light of these risks and financial impacts and connects them to the Kanadevia Group's strategy.

Table 4-5: Items with Significant Financial Impacts from Nature-related Risks*

[Nature-related Risks Related to the Upstream Supply Chain]
Steel Production (Production of Iron Used Across All Businesses)

Dependency and Impact on Main Items	Risk Classification	Risk Type	Risk Overview	Financial Impacts	Risk Mitigation Measures
Water resources (water use) in the production of iron, a raw material for machinery and equipment	Physical Risk	Acute	- Production restrictions due to inability to secure water - Landslides and land subsidence caused by excessive water use - Depletion of water resources	- Suspension of engineering activities and decline in sales due to inability to procure iron following a halt in iron production - Penalties payable to customers and commissioning parties	Procurement from suppliers that produce iron with limited water use and/or recycled water
		Chronic	- Decline in water resources - Drought caused by persistent water shortages	Prolonged suspension of engineering activities and decline in sales due to inability to procure iron	

*The table presents items for which the financial impact was assessed to exceed JPY 10 billion in a single year.

Sawmilling (Biomass fuel production for power generation)

Dependency and Impact on Main Items	Risk Classification	Risk Type	Risk Overview	Financial Impacts	Risk Mitigation Measures
Water use in the production of wood chips and other biomass fuels for biomass power generation	Physical Risk	Chronic	- Decline in water resources - Continuous production constraints on wood chips and other biomass fuels due to water shortages	Inability to procure wood chips and other biomass fuels, leading to prolonged suspension of power generation, lower sales, and business withdrawal	Procurement from suppliers that produce wood chips and other biomass fuels with limited water use and/or recycled water

Operations (Wind Power Generation)

Dependency and Impact on Main Items	Risk Classification	Risk Type	Risk Overview	Financial Impacts	Risk Mitigation Measures
Stable climatic conditions (climate regulation and flood mitigation)	Physical Risk	Chronic	Expansion of areas where operations cannot continue due to unstable weather conditions	Decrease in orders and operating projects, resulting in lower sales	Operations using technologies that are less susceptible to weather impacts
	Transition Risk	Market	Growing customer preference for companies capable of stable operation	Decrease in orders, resulting in lower sales	

Construction, Commissioning and Decommissioning (WtE/biomass power and infrastructure)

Dependency and Impact on Main Items	Risk Classification	Risk Type	Risk Overview	Financial Impacts	Risk Mitigation Measures
Water use in construction	Physical Risk	Chronic	- Suspension of construction due to an inability to reliably secure the water required for construction activities - Depletion of water resources	- Business withdrawal and opportunity loss due to prolonged suspension of construction	Construction using methods with limited water use and water reuse

*The table presents items for which the financial impact was assessed to exceed JPY 10 billion in a single year.

4.7 Opportunity Analysis Related to Climate, Nature, and People & Society

(1) Approach to Opportunity Analysis

Social issues such as climate change, degradation of natural capital, constraints on resources, water and energy, waste problems, and intensifying disasters create risks for the Kanadevia Group. They also create opportunities to generate environmental value, social value, and business value through our technologies, business models, and partnerships. As the need to transition towards a society with net-zero environmental impacts increases and environmental awareness and regulation become stronger, we expect market opportunities related to waste treatment, water treatment, resource circulation, decarbonisation, and disaster prevention and resilience to expand.

This section presents opportunities related to Climate, Nature, and People & Society based on analysis of dependencies and impacts, scenario analysis, and financial impacts. However, the scope of analysis, maturity of data, and level of evaluation differ between Climate, Nature, and People & Society. For climate and nature, we cover the full range of Group business fields and assess business opportunities and financial-impact pathways from the perspectives of the value chain, scenario analysis, and financial impacts. For people and society, the analysis is a preliminary mapping referencing TISFD Beta perspectives and does not necessarily analyse the entire Group at the same level of detail at this time.

For climate- and nature-related opportunities, we assess business opportunities in decarbonisation, resource circulation, water circulation, conservation of natural capital, disaster prevention, adaptation, and related areas. We then identify financial-impact pathways such as new orders, upgrades to existing facilities, long-term operation and maintenance, service revenues, technological differentiation, and cost reductions. For opportunities related to people and society, the preliminary analysis maps pathways centred on human capital, sustainable procurement, fair transactions, co-creation with communities and customers, and visualisation of social impacts. These pathways can strengthen execution capability, supply-chain resilience, local acceptance, long-term customer relationships, talent acquisition, and engagement with investors and municipalities.

Finally, based on the above, we present specific opportunities in each business.

(2) Climate- and Nature-related Opportunities and Financial Impact Pathways

Global Waste Trends towards 2050

According to the World Bank Group's "What a Waste 3.0[88]," global municipal solid waste generation is projected to increase by approximately 50%, from 2.56 billion tonnes in 2022 to 3.86 billion tonnes in 2050 under a Business as Usual (BAU) scenario in which current policies and economic activity continue. Waste generation is expected to grow particularly rapidly in emerging and developing regions, increasing by approximately 124% in Sub-Saharan Africa and approximately 99% in South Asia by 2050.

At present, roughly one-third of waste generated globally is still not collected and treated appropriately. Collection rates are approximately 31% in Sub-Saharan Africa and approximately 67% in South Asia, and large quantities are still managed through open dumping and other inadequate methods. Looking towards 2050, what is required is therefore not merely additional treatment capacity, but the development of entire waste-management systems covering collection, proper treatment, sanitary landfill, recycling, composting, and resource and energy recovery. In regions undergoing rapid urbanisation in particular, demand is expected to grow for circular infrastructure that links waste treatment with the supply of electricity, heat, fuels, recycled resources, and other forms of value.

These trends will require substantial infrastructure investment. The World Bank estimates that global municipal solid-waste management costs already exceed USD 250 billion per year and could reach USD 426 billion per year by 2050. In low-income and lower-middle-income countries alone, cumulative investment requirements for waste management between 2022 and 2050 are estimated at approximately USD 556 billion. These figures do not represent market revenue itself, but they are an important indicator of the scale of waste infrastructure and services that will be required.

At the same time, the World Bank emphasises the importance of transforming waste from a "cost to be managed" into a resource that creates employment, resource circulation, urban competitiveness, and economic growth. The global waste market towards 2050 can therefore be viewed as expanding from conventional incineration and landfill towards a market for circular social infrastructure combining Waste to Energy, Waste to X, resource recovery, recycled materials, bioresource utilisation, carbon capture, and related solutions. For the Kanadevia Group, particularly in emerging markets and growing cities where increasing waste volumes and infrastructure shortages are occurring simultaneously, an important growth opportunity will be to deploy integrated business models that extend beyond EPC to project development, financing, long-term O&M, and resource and energy supply.

Climate- and Nature-related Opportunities

As the global population grows and urbanisation, economic growth, and climate change progress, challenges such as shortages of energy, resources, food, and water; constraints on habitable areas; waste problems; and biodiversity loss are becoming more pronounced. Against this backdrop, demand for a transition to a society with net-zero environmental impacts is increasing, and we expect market opportunities for environmental businesses to expand as environmental awareness rises and regulation becomes stronger. The Kanadevia Group has a diverse portfolio of plant technologies and extensive business experience in waste treatment, water treatment, energy, resource circulation, decarbonisation, disaster prevention, and resilience. By combining these capabilities, we can propose business models that address regional climate- and nature-related challenges.

Climate- and nature-related opportunities are created across the entire value chain rather than only through sales of individual products or equipment. Table 4-6 shows, along the value chain, how the Group's businesses and initiatives can lead to opportunities. Working with suppliers to secure materials that take climate and nature into account represents "**procurement reform**," while developing environmental businesses in regions with substantial scope for improving environmental performance represents "**global expansion**." Three initiatives improve ease of customer adoption. "**Advanced technology development**" improves treatment processes and environmental performance. "**Earlier market launch**" accelerates development of environmental technologies and delivery to customers. "**Equipment standardisation**" improves quality and reduces adoption costs by standardising plant design. In addition, "**integration of proprietary technologies**" to address different regional challenges, "**service-based business models and own operation**" to provide high-quality services continuously, and "**resource recycling**" to recover resources used or generated in plants are measures that can simultaneously reduce environmental impacts and create business value.

These opportunities may also affect financial performance through new orders, upgrading of existing facilities, long-term operation and maintenance, service revenues, technological differentiation, lower implementation costs, and continuing customer relationships. Particularly in regions where social demand is rising for reduced environmental impacts, resource circulation, water circulation, decarbonisation, disaster prevention, and resilience, we believe proposals combining Group technologies and business models can contribute both to solving customer and regional issues and to generating business opportunities for the Group.

Table 4-6: Initiatives to Create Climate- and Nature-related Opportunities (2030)

Project \ Measures		[Procurement]	[Planning]	[Development]			[Provision]		
		Procurement Reform	Global Expansion	Advanced Technology Development	Early Market launch	Equipment Standardisation	Integration of Proprietary Technology	Resources Recycling	Servitisation Operation and Management
Environment Business	WtE	v	v	v		v	v		v
	Biogas		v		v				v
	Water	v	v					v	
	WtX		v	v	v			v	v
Machinery Business		v						v	
Infrastructure Business		v		v					
Carbon Neutral Solution Business	Process and Nuclear-related equipment		v	v				v	
	Decarbonisation systems	v	v	v	v	v	v	v	v
	Wind power generation	v	v	v	v				

(3) Opportunities Related to People & Society and Financial Impact Pathways

Addressing people- and society-related issues is not limited to reducing risks; it is also a source of competitiveness and social value that enables climate- and nature-related business opportunities to be implemented in society. Businesses in decarbonisation, resource circulation, water treatment, disaster prevention, and resilience cannot be sustained by technology and equipment alone. They are supported by skilled expertise, a safety culture, supplier capabilities, trust with local communities, and relationships with customers, municipalities, and investors. Strengthening these foundations can enhance business execution capability, supply-chain resilience, regional resilience, and visualisation of social impacts.

Strengthening human capital is a foundation for translating climate- and nature-related opportunities into actual business outcomes. Enhancing critical skills, professional and digital talent, safety culture, DE&I, and engagement can improve the quality and execution capability of decarbonisation, resource circulation, disaster prevention, water treatment, construction, operation, and maintenance activities. This can help maintain and expand contract opportunities and strengthen the long-term earnings base through reliable project execution, improved quality and safety, fewer schedule delays and rework, and stronger customer trust.

Sustainable procurement and fair transactions are important elements for stable execution of environmental businesses. By improving human rights, occupational safety, quality, environmental performance, and transaction conditions together and strengthening long-term supplier relationships and stable supply, we can improve our ability to meet customers' environmental and social requirements. Connecting SAQs, human rights due diligence, business partner surveys, and dialogue to improvement support and reassessment can contribute to greater supply-chain resilience, stable quality, on-time delivery, and stronger customer proposal capabilities, thereby enhancing order competitiveness and ongoing business relationships.

Co-creation with regions and customers is an opportunity to establish environmental businesses within local communities. Combining waste treatment, water, disaster prevention, energy, environmental education, and other solutions according to regional issues can improve living environments, public health, service continuity, and disaster response capabilities. Designing businesses through dialogue with local communities and customers while considering benefits and burdens can strengthen local trust, permitting and consensus-building, long-term operations, replacement demand, and formation of new projects.

Visualising social impacts provides a foundation for explaining environmental value and social value together. We will continuously assess outcomes from human rights due diligence, health and safety, engagement, supplier improvement, community dialogue, and service continuity. Based on these findings, we will deepen dialogue with customers, municipalities, investors, and talent and link the results to stronger proposal capabilities, financing, talent acquisition, and medium- to long-term corporate value.

(4) Business Opportunities

Each Kanadevia Group business has opportunities to help solve customer and regional challenges by combining responses to climate- and nature-related issues with value creation for people and society. The following sections set out the direction of opportunities and financial impacts for the Environment Business, Machinery Business, Infrastructure Business, and Carbon Neutral Solution Business using specific examples.

The following presents the key opportunities for each business, based on the opportunity analysis. The icons assigned to each business indicate the main directions for opportunity creation (see the legend below).

*Legend

PR	**P**rocurement **R**eform	ES	**E**quipment **S**tandardization
GI	**GI**obal Expansion	IPT	**I**ntegration of **P**roprietary **T**echnology
AT	**A**dvanced **T**echnology Development	RR	**R**esource **R**ecycling
EM	**E**arly **M**arket launch	SO	**S**ervitisation, **O**peration and Management

Environment Business

PR GE AT EM ES IPT RR SO

In the Environment Business, Waste to Energy/Waste to X, water treatment, water production, sludge recycling and resource recovery, biogas, biological methanation, and related solutions provide opportunities to circulate waste, water, carbon, and energy within regions. From climate and nature perspectives, these businesses can contribute to reducing open dumping and landfill, suppressing methane emissions, recovering resources from waste, capturing CO_2, recovering energy, improving water quality, securing water resources, and reducing pressures on ecosystems. From the perspective of people and society, they also have value as social infrastructure supporting sanitation and public health, living environments, access to energy, local employment, service continuity, and greater resilience during disasters.

In the **Waste to Energy business**, the Kanadevia Group has contributed to waste treatment and reduction of environmental impacts in regions around the world as a plant-engineering company with a world-leading delivery track record.

Waste to Energy is a technology that combusts waste as a distinctive fuel and simultaneously reduces waste volume, provides sanitary treatment, suppresses methane emissions associated with landfill disposal, properly treats hazardous substances, and generates power using recovered waste heat. By combining expertise in combustion, flue-gas treatment performance, project development, design, construction, after-sales services, operation and management, and maintenance, the Group can improve plant operating efficiency and address environmental challenges faced by customers and local communities.

Combining Waste to Energy facilities with decarbonisation and resource-circulation technologies such as CO_2 capture, methanation, and biogas also creates opportunities to upgrade conventional waste-treatment facilities into regional decarbonised and circular infrastructure.

In a Waste to Energy plant construction project in Casablanca, Morocco, a business model is envisaged that suppresses methane generation from landfill through waste incineration while combining reductions in GHG emissions across the overall waste-treatment process with the generation of carbon credits[89]. In a Waste to Energy plant construction project in Malacca, Malaysia, a plant is being developed as part of an approximately 34-year municipal-waste treatment business together with a project company established by a local power producer and environmental-services company. By shifting waste previously dependent largely on landfill to incineration, reducing waste volume, treating it hygienically, and generating power using waste heat, the project contributes to improving local waste-management conditions, providing stable electricity, and enhancing essential community infrastructure.

These projects are linked to solving waste-treatment, public-health, and energy-supply challenges in developing regions and create business opportunities through EPC, long-term operations, maintenance, and collaboration with local partners. Opportunities in Waste to Energy are not limited to construction of new plants; they also extend to upgrading existing facilities.

Reuse of incineration residues such as bottom ash and fly ash, facility life extension, major equipment upgrades, improved flue-gas treatment performance, adoption of environmentally considerate concrete, and more advanced operations management can all enhance the environmental performance and utility value of facilities.

Standardising plant design and operating know-how can further reduce implementation costs, stabilise quality, and improve the efficiency of maintenance and renewal. If advances in the circular economy change the proportion of plastics in waste or its calorific value, more advanced combustion methods and operations management adapted to those changes will also become important.

Through renewal and life extension of existing facilities, improved operating efficiency, and growing demand for maintenance and upgrades, these initiatives can contribute both to reducing customers' environmental impacts and to ongoing earnings opportunities for the Group.

In the **Water Business**, we expect demand to increase for water production, water treatment, sewage and industrial wastewater treatment, sludge recycling and resource recovery, and reclaimed-water use. Key drivers include water shortages, deteriorating water quality, urbanisation, industrialisation, and droughts and disasters associated with climate change.

We respond to this demand with seawater and brackish-water desalination using reverse osmosis membranes, advanced membrane purification such as Ultrafiltration (UF)[90], drinking-water and sewage treatment, and industrial wastewater treatment. These solutions serve a broad range of fields, including municipal water supply, mining and resource development, energy, food and beverages, and agricultural water. Our record of constructing water treatment plants and our experience operating facilities under contract can lead not only to orders for new facilities, but also to operation management, long-term maintenance, equipment renewal, and ongoing relationships with customers and municipalities.

Safe water and sanitation in underserved regions, water production on islands and in arid areas, sewage treatment associated with urbanisation, wastewater treatment associated with industrialisation, and emergency water supply during disasters and droughts are also major social opportunities. On South Tarawa Island in the Republic of Kiribati, for example, in 2025, drinking-water supply began from a newly constructed seawater desalination plant, completing the first stage of a project that provides sustainable water to more than 50,000 island residents.

In the Maldives, we are advancing introduction of a decarbonised seawater desalination system powered by renewable energy independently of the commercial grid, allowing freshwater production to continue autonomously even during power outages caused by disasters. These initiatives contribute not only to securing water resources, but also to climate change adaptation, stable living foundations, and improved regional resilience.

In sewage and sludge treatment, the Group is focusing on development of biological methanation technology that effectively uses CO_2 contained in biogas generated by anaerobic digestion of sewage sludge. Enabling sewage-treatment plants to serve as distributed energy-supply hubs can also improve regional energy security and resilience. Technologies that recover phosphorus during wastewater treatment, such as the MAP method[91], and development of nitrogen-recovery technologies create opportunities for both resource circulation and ecosystem conservation through connections with local agriculture and water environments. The Water Business can evolve beyond stand-alone treatment equipment into broader business opportunities that utilize sludge, biogas, concentrated brine, phosphorus, nitrogen, and other outputs from treatment processes as energy and resources, while linking them with Waste to Energy/Waste to X, renewable gas, and regional resource circulation systems.

The **WtX Business** extends conventional Waste to Energy by extracting biogas, renewable gas, hydrogen, valuable resources, and other products from waste, creating opportunities to maximize the use of waste as a resource. One example is the EFCaR (Energy Free Carbonising for Resource Recovery) Business. This business provides biochar[92)] quality-management services that promote broad-area resource circulation from waste. Specifically, organic waste—including sludge, livestock manure, and anaerobic-digestion residue—is heated in an oxygen-free environment to produce biochar for proper waste treatment, resource circulation, and carbon reduction. Because phosphorus in the waste is concentrated in the biochar in a soluble form, the biochar can be used as fertiliser. Biomass-derived carbon is also fixed in the biochar, so using it as fertiliser on farmland can contribute to carbon-negative agriculture. EFCaR can be positioned as a business opportunity that expands waste treatment into resource recovery, agricultural use, and carbon sequestration.

The **Biogas Business** is also an important opportunity within the Environment Business. Converting organic waste such as food waste, agricultural waste, and sewage sludge into biogas through methane fermentation and using it for power generation, heat supply, and gas supply can simultaneously reduce waste, create renewable energy, and promote regional resource circulation. In Europe, business models have been developed for biogas production plants using agricultural waste as a principal feedstock, covering the full process from waste collection through supply of the generated gas, and indicating potential for business expansion using project finance. These initiatives can create earnings opportunities by combining EPC, O&M, business development, financing, and collaboration with local partners.

Column: Jönköping Plant, Sweden

Getting Circular with Carbon Capture in the UK and Biofuel for Buses in Sweden

Kanadevia Inova has expertise in technologies related to Waste to Energy/Waste to X, biogas, biomethane, and CO_2 capture, as well as in EPC, O&M, and project development and asset management. Primarily in Europe, but increasingly global, it plays a role in advancing waste treatment into regional decarbonised and circular infrastructure. The Jönköping biogas plant, in Sweden, uses Kompogas™ dry anaerobic digestion and downstream biogas treatment to process regional biowaste and provide buses and garbage trucks in the city of Jönköping with biogas. The organic fertiliser produced through the process is used in local agriculture and thus supports the local circular economy. These examples expand opportunities across the Kanadevia Group as social-implementation models that transform waste from something to be treated into energy, fertiliser, and value for local communities.



Figure 4-12: Jönköping Plant, Sweden

Column: Facility Overview

Carbon Capture For the Protos Energy Recovery Facility in Cheshire, UK, Scheduled to Begin Operations in 2029

At Protos in Cheshire, Kanadevia Inova is delivering the UK's first full-scale carbon capture facility for a WtE plant, in decarbonising residual waste treatment. As EPC contractor, Kanadevia Inova is integrating proven carbon capture technology to capture around 380,000 tonnes of CO_2 annually, with permanent storage via the HyNet network, the UK's CO_2-capture industrial cluster.

This project demonstrates how energy recovery, circularity and carbon capture can be combined to deliver scalable, low-carbon infrastructure. It also shows the potential to upgrade waste-treatment facilities from standalone treatment assets into infrastructure that supports regional decarbonisation and resource circulation.



Figure 4-13: Rendering of the Protos Energy Recovery Facility in Cheshire, UK

Machinery Business PR RR

In the Machinery Business, opportunities exist in industrial machinery supporting decarbonisation and resource circulation. Film deposition equipment for perovskite solar cells supports mass production of next-generation solar cells that can be installed in locations where conventional silicon solar cells are difficult to deploy. As manufacturing equipment that supports wider adoption of renewable energy, this is an area that can contribute to climate change mitigation. As the market expands, further orders can be expected.

As wider use of renewable energy makes battery disposal and recycling an increasingly important issue, our filter presses are used in processes that recover valuable metals from black mass, a mixture containing multiple metals. Opportunities may therefore expand for Kanadevia Group industrial machinery and solid-liquid separation technologies in renewable-energy and recycling industries.

These opportunities leverage the Group's precision manufacturing technologies, ability to respond to customer specifications, and quality-management capabilities. From climate and nature perspectives, they contribute to expanding renewable-energy and resource-circulation markets; from the perspective of people and society, they are positioned as businesses supporting advanced industrial foundations, quality, safety, and skills transfer. Financially, they may lead to equipment orders in growth markets, continuing business with existing customers, stronger competitiveness through technological differentiation, and maintenance and renewal demand.

Infrastructure Business PR IPT

In the Infrastructure Business, there are opportunities to contribute to climate change adaptation and enhanced regional resilience through hydraulic gates, steel penstocks, flap gate-type flood-protection equipment, maintenance and repair, renewal technologies, and related solutions. As disaster risks from heavy rainfall, storm surges, tsunamis, flooding, and other events increase, demand for flood control, water utilisation, disaster prevention, and longer infrastructure life is increasingly important. With the role of hydropower being reassessed as a source of renewable energy, demand for renewal of hydroelectric facilities in Japan is also expected to continue. By advancing renovations and technology development for structures such as dam gates and steel penstocks that improve power-generation capacity, extend dam life, and reduce environmental impacts, we can respond to customer needs while contributing to climate change mitigation and improvement of local environments.

As climate change adaptation measures, in addition to Flap Gate-type flood-protection equipment, we are developing tsunami-detection systems combining remote monitoring with GPS/GNSS positioning systems. These technologies support initial response during disasters, understanding of equipment conditions, damage reduction, and continuity of community functions, creating opportunities to advance disaster-prevention equipment from simple structures into systems supporting community safety and security.

As a contribution to enhanced regional resilience, the hydraulic gate business protects the lives, health, and property of local residents through flood control and supports drinking water, agricultural water, industrial water, and hydropower generation through water utilisation. Inundation caused by floods, storm surges, and tsunamis can damage homes, schools, medical facilities, transportation, business sites, and other essential community infrastructure. Hydraulic gates and disaster-prevention equipment are social infrastructure that mitigates damage during disasters and supports the continuity and recovery of community functions.

Hydraulic gates and water-utilisation facilities are also basic infrastructure supporting urban life, agricultural production, industrial activity, and energy supply. Particularly in regions where infrastructure is not sufficiently developed, basic flood-control and water-utilisation facilities provide a prerequisite for subsequent urbanisation, industrialisation, public health, and job creation. Water is an essential foundation for human survival and regional development, and needs for drinking water, sewage, power generation, waste treatment, and other infrastructure increase with stages of regional development. Technologies related to hydraulic gates and water utilisation are therefore positioned not only as opportunities for climate change adaptation, but also as opportunities to support living foundations for people and society.

Overseas, to address cost, delivery, and constructability while also contributing to local employment, skills transfer, and the accumulation of technical capabilities, our basic business model uses manufacturing bases in Thailand and elsewhere, procures steel and other materials locally or from surrounding regions, and involves local personnel in manufacturing.

Looking ahead, opportunities may emerge in areas such as watershed-based water-resource management, digitally enabled integration of rivers, dams, and water-treatment infrastructure, and infrastructure exports that incorporate both climate-change adaptation and living in harmony with nature.

From a financial perspective, demand may grow for the renewal of ageing infrastructure, maintenance and rehabilitation services, seismic reinforcement and disaster-prevention measures, refurbishment of hydropower facilities, remote monitoring and management systems, and value-added functions that enhance disaster-response capabilities. These areas have the potential to generate both new orders and long-term maintenance revenues.

Through these initiatives, the Infrastructure Business aims to simultaneously contribute to climate-change adaptation, regional resilience, and the strengthening of the foundations of people's lives and society, while creating medium- to long-term business opportunities.

Carbon Neutral Solution Business

PR GE AT EM ES IPT RR SO

In the Carbon Neutral Solution Business, opportunities exist to support the transition to a carbon-neutral society through CO_2 capture, methanation, hydrogen production, renewable gas, wind power generation, process equipment, nuclear-related equipment, and other solutions. From climate and nature perspectives, these businesses may contribute to reducing GHG emissions, expanding renewable-energy deployment, carbon circulation[93)], energy transition, and more efficient use of resources and energy.

Carbon capture equipment that captures CO_2 emitted from waste-incineration facilities and industrial facilities is an important opportunity for connecting waste treatment and decarbonisation. In the United Kingdom, Kanadevia Inova is advancing a range of projects, including the installation of large-scale carbon capture equipment at an existing energy-from-waste plant and retrofit design of CO_2 liquefaction systems at five existing biogas plants. Combining these carbon capture facilities with the creation of carbon credits may lead to further order growth. By combining energy from waste, CO_2 capture, and storage and utilisation, opportunities are expanding to upgrade conventional energy-recovery facilities into low-carbon circular infrastructure.

The Kanadevia Group is also advancing proposals for systems that produce e-Methane. Specifically, CO_2 emitted from waste incineration facilities is captured and reacted with hydrogen produced by a Water Electrolyser to produce e-Methane. Regarding methanation, by combining fresh water produced by seawater desalination, Water Electrolysers, hydrogen, and CO_2 capture, methanation may be developed as an integrated decarbonisation system linking regional water, carbon, and energy.

Although this market is still developing, we are working with partners to form the market through alliances and direct investment. In these initiatives, it is important to leverage the Group's technological strength in the superior reaction rate of its methanation catalysts. The methanation initiative combined with seawater desalination in Oman remains in the incubation phase, but provides an opportunity to address technical issues involved in scaling equipment, mass production, and achieving economic viability - in other words, substantial cost reductions.

For the hydrogen business, we are collaborating with multiple companies while looking towards market formation around 2040. We are also considering initiatives for local production and local consumption of hydrogen - that is, using hydrogen near where it is produced - and participation in related funds.

Rather than selling individual products alone, we aim to capture system-integration opportunities and expand the business by providing systems that combine hydrogen production, storage, utilisation, and related equipment.

In Wind Power Generation, we deliver onshore wind facilities and also construct and operate facilities ourselves. For offshore wind power generation, we provide foundation structures. Offshore wind structures are broadly divided into fixed-bottom and floating types.

Fixed-bottom systems commonly use piles approximately 10 m long driven into the seabed, whereas we are developing a suction-bucket system that penetrates the seabed by removing water from an inverted bucket-shaped cylinder. Fish are known to gather around the foundation structures of floating systems, which may mitigate impacts on marine ecosystems associated with construction of wind power facilities. The sea area between floating structures could also potentially be used for aquaculture of fish, shellfish, or seaweed.

Wind Power Generation therefore provides opportunities to combine expanded renewable-energy deployment with marine-area use, regional co-creation, and coexistence with nature.

From the perspective of people and society, the Carbon Neutral Solution Business not only supports customer transitions, but also relates to regional energy access, industrial foundations, employment, skills development, and energy resilience during disasters. At the same time, uncertainties remain regarding market formation, policy support, infrastructure development, cost reduction, and securing offtake arrangements. It is therefore important to advance collaboration with partners, technology development, standardisation, mass production, and verification of business viability while connecting these activities to future equipment supply, EPC, system integration, O&M, and related service revenues.

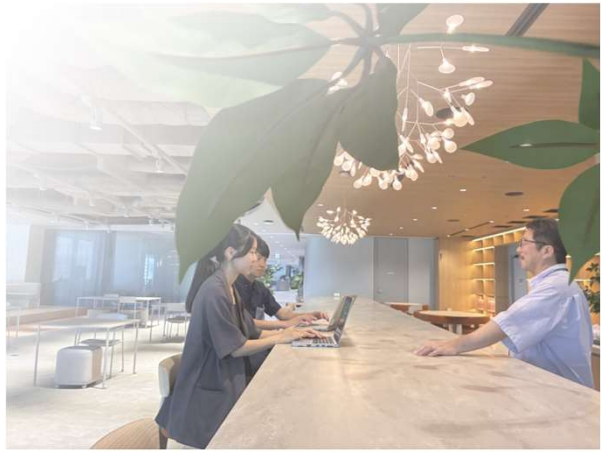
(5) Strategic Implications from Opportunity Analysis

Based on the opportunity analysis, Kanadevia Group business opportunities are expanding beyond provision of individual products and equipment towards integrated solutions that combine and solve regional challenges related to Climate, Nature, and People & Society. Waste treatment, water treatment, resource circulation, CO_2 capture, methanation, hydrogen, Wind Power Generation, disaster-prevention and water-utilisation facilities, and other solutions are business opportunities in their own right. Together, they can also reduce local environmental impacts, advance resource and energy circulation, strengthen the foundations of daily life, and improve disaster preparedness.

Connecting these opportunities to business value requires more than possessing technology. It requires proposals that combine multiple technologies and business models based on each region's waste characteristics, water demand, energy demand, natural conditions, industrial structure, financial circumstances, and resident needs. Stable long-term operations also require skilled expertise, a safety culture, supplier capabilities, trust with local communities, and relationships with customers, municipalities, and investors. Opportunities related to people and society are a foundation for implementing climate- and nature-related business opportunities safely, reliably, and justly and converting them into continuous value.

In terms of financial impacts, in addition to orders for new plants and equipment, important areas include upgrading existing facilities, core renovation, life extension, improved operating efficiency, AOM[94)]/O&M, maintenance and renewal, resource and energy recovery, service-based business models, own operation, and collaboration with local partners. This can expand business opportunities beyond one-time equipment deliveries towards long-term operation and maintenance revenues, continuing customer relationships, and creation of added value from resource circulation and decarbonisation.

The strategic implication derived from this opportunity analysis is that the Group needs to evolve from a provider of individual technologies and equipment into an organisation that combines the foundations of waste, water, carbon, energy, disaster prevention, and people and society and plays a role in social implementation tailored to regional challenges. Based on this direction, the next section sets out “Resilience Eco Society®” - the social vision we aim to realise towards 2050 - and the Group's integrated strategy for achieving it.



4.8 Strategy

(1) Management Strategy for Realising Resilience Eco Society®

The Kanadevia Group regards material risks and opportunities related to climate change, natural capital and biodiversity, and people and society, as well as its dependencies and impacts on nature, people, and society, as management issues that influence its business portfolio, technology development, investments, value creation for customers, value chain, and corporate value. Resilience Eco Society® is the management strategy through which the Group seeks to respond to these changes, capture emerging business opportunities, and translate them into medium- to long-term growth. In particular, the Group aims to capture market opportunities related to decarbonisation, resource circulation, water, disaster prevention, and resilience as growth areas, while managing transition risks, physical risks, dependencies on natural capital, and risks related to human rights, labour, and local communities as management issues that may affect business continuity and corporate value.

Resilience Eco Society® is not a vision of the future that will emerge naturally simply through the accumulation of environmental technologies. Rather, it is a management strategy aimed at creating environmental, social, and corporate value simultaneously by addressing regional challenges related to waste, water, carbon, energy, soil, biological resources, disaster prevention, and living infrastructure, and by combining technologies, business models, partnerships, and management systems and implementing them in forms that regions and customers can continue to use.

To realise Resilience Eco Society®, the Group will progressively evolve its business portfolio and value proposition over time. During the 2030s, the Group will combine its existing businesses and customer base in areas such as Waste to Energy (WtE), water treatment, and disaster prevention with decarbonisation technologies. Through proposals to customers and local authorities, as well as co-creation initiatives, the Group will develop business opportunities by addressing regional challenges and establish models that can be adapted and deployed in other regions. During the 2040s, the Group will develop long-term businesses that integrate waste, water, carbon, energy, biological resources, and disaster prevention at the regional level. By providing Resilience Eco Society® models tailored to the characteristics of individual regions, the Group aims to expand its revenues. By 2050, the Group aims to see diverse Resilience Eco Society® models being operated continuously across the world, achieving both net-zero environmental impacts at the regional level and the maximisation of people's well-being, while becoming a sustainable earnings foundation for the Group.

(2) Transition to a Circular Economy and Positioning of Resilience Eco Society®

From a Linear Economy to a Circular Economy

Our economy and society have long developed on the premise of a linear economy in which resources are extracted, products are made and used, and then disposed of. However, this model creates multiple environmental challenges at every stage of extraction, manufacturing, consumption, and disposal, including climate change, biodiversity loss, pollution, increasing waste, and water stress.

The circular economy has developed as an alternative to this linear model. By realising a loop-based economy in which products are used for longer periods, repaired, regenerated, and kept from becoming waste, the circular economy seeks both to reduce pressures on the environment and resources and to enable sustainable economic development. It is progressing not only as a concept, but also in policy and industrial strategy. In Europe, Circular Economy policies extend to product design, consumption, waste prevention, use of secondary raw materials, and development of regional demand, and keeping resources within the economy for longer is becoming an important aspect of industrial competitiveness.

Treating the Circular Economy as a Management Strategy

The Kanadevia Group views these social, policy, and market changes not simply as changes in the external environment but as opportunities to evolve the structure of its businesses.

The net-zero environmental impacts sought by the Group mean keeping not only environmental impacts from our own business activities, but also impacts from the supply chain and from customers using our products and services, within the environmental resilience inherent in each region. Beyond that lies a society in which human activities remain within the environmental resilience of the planet and each region, and waste, water, carbon, energy, and resources circulate as things of value.

In such a society, waste-treatment and water-treatment facilities are not simply places where environmental impacts are processed. **They become places where regional resources gather and where new materials, energy, water, food, learning, work, and culture are created.** Resilience Eco Society® is the Group's management strategy for implementing such a future as real social infrastructure.

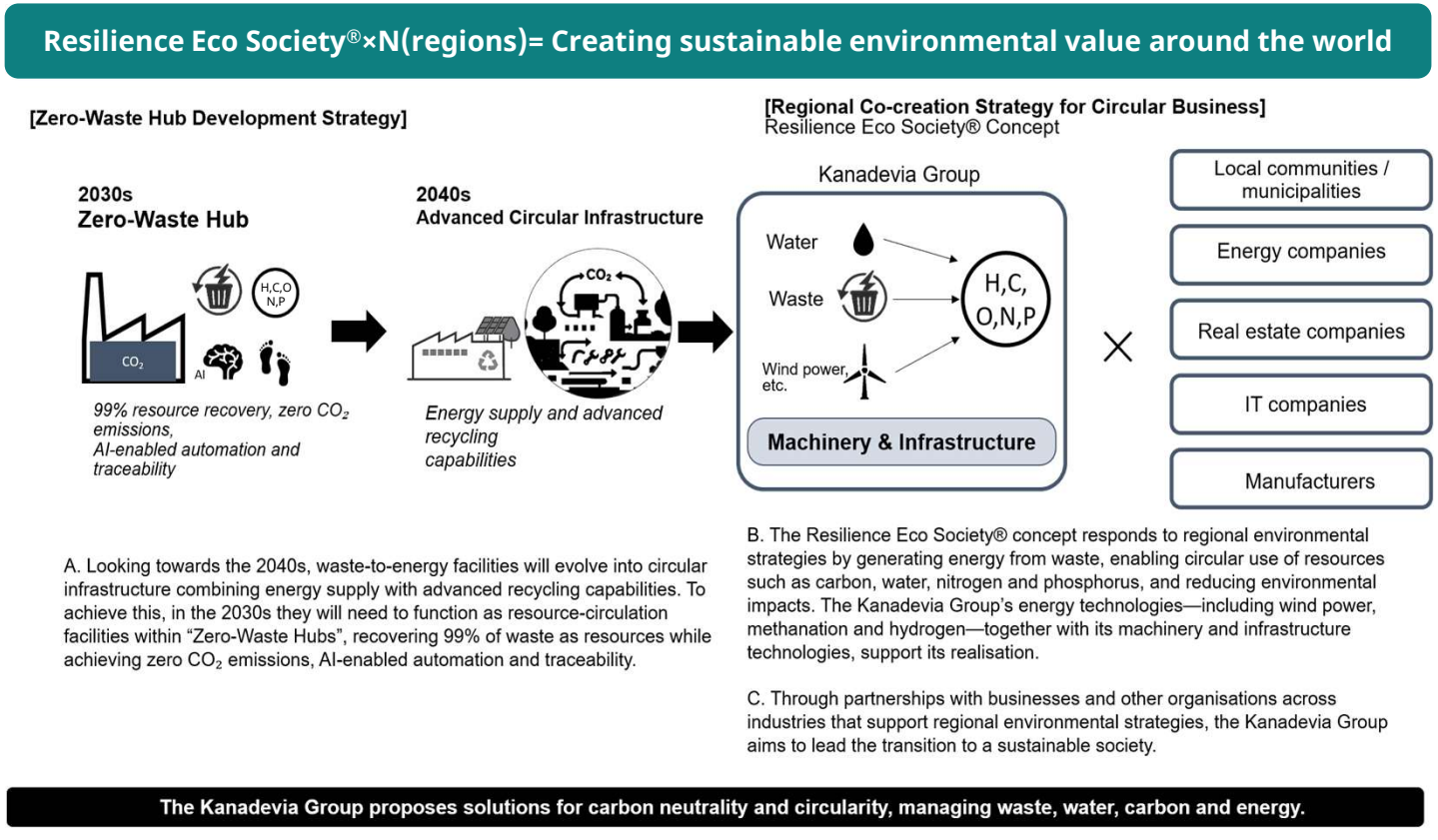


Figure 4-14: Kanadevia Group Strategy

Proactive Business Deployment for Transition to Carbon Neutrality

The transition to a circular economy is an important direction, but because it requires development of social systems, technologies, destinations for circulated resources, consumption behaviour, and regional infrastructure, it will progress in stages. Carbon Neutrality, by contrast, has already materialised as a demand from customers, regions, policymakers, and markets, and is an area where the Kanadevia Group should move more quickly to make business opportunities concrete.

Towards 2030, the Group will combine advanced Waste to Energy, O&M, core renovation, CO_2 capture, methanation, hydrogen, Wind Power Generation, low-carbon materials, visualisation of avoided emissions, and other solutions according to customer and regional challenges and provide them as value that supports the transition to Carbon Neutrality. This goes beyond individual emissions-reduction measures: it combines the Group's technologies, services, and existing customer base to connect customer and regional challenges to new business opportunities.

In the 2030s, the Group will advance social implementation and commercialisation of next-generation decarbonisation technologies and business models through proposals to and co-creation with customers and municipalities, taking into account policy trends, technology maturity, customer needs, and business viability. Building on decarbonisation value, it will also combine waste, water, carbon, energy, biological resources, disaster prevention, and other functions at the regional level to form Resilience Eco Society® models that turn solutions to regional challenges into sustainable long-term businesses and connect them to full-scale deployment in the 2040s.

(3) Business Strategy for Implementing Regional Circularity

Based on multiple future scenarios, the Kanadevia Group will examine the competitiveness of its existing businesses, including WtE, water treatment and disaster risk reduction, as well as their potential for expansion into growth areas such as CCUS, WtX and resource recovery, thereby enhancing the resilience of its business portfolio.

In 2050, when a circular society has been realised, waste is expected to circulate as a valuable resource, with incineration itself reduced to a minimum. Carbon, hydrogen, metals, minerals, phosphorus, nitrogen and water are expected to be recovered and reused according to their respective applications. Carbon will be returned to use in energy, fuels, chemicals, construction materials and advanced materials; hydrogen in energy systems; phosphorus and nitrogen in food production; and iron and aluminium in infrastructure and manufacturing. Water will become a resource that supports regional water cycles, not only through the use of river water and seawater, but also through the reuse and purification of wastewater.

As resource circulation advances, the role required of social infrastructure such as waste treatment and water treatment may expand in the future, from merely treating waste and water to recovering and regenerating resources and energy for use both within and beyond local communities. Drawing on the technologies and operational foundations developed through its existing businesses, including WtE and water treatment, the Kanadevia Group will combine recovery and circularity functions of various scales and continue to evolve its business portfolio in response to changes in society and markets.

At the **large scale**, large volumes of waste, mixed plastics, metals, minerals, CO_2, and heat generated in metropolitan areas, industrial clusters, port areas, and similar locations are efficiently recovered and converted across broad areas. At this scale, the core is integrated resource-circulation infrastructure combining Waste to Energy, heat supply, CCUS, Waste to X, recovery of metals and minerals, hydrogen and methane production, recycled-material production, and related functions. Returning residues generated by cities to industry as raw materials or energy can contribute not only to decarbonisation, but also to stable resource and energy supply and stronger industrial competitiveness.

At the **medium scale**, water, sludge, phosphorus, nitrogen, food residues, agricultural residues, and biomass are circulated within municipalities, living areas, watersheds, sewage-treatment districts, and agricultural regions. At this scale, it is important to connect agriculture, energy, and living infrastructure while protecting local water environments. Converting sludge and food residues into biogas and fertiliser, using treated water as reclaimed water, and returning phosphorus and nitrogen to farmland are initiatives that help connect regional natural capital with the social and economic foundations that support daily life.

At the **small scale**, circulation is designed closer to daily life at the level of buildings, factories, commercial facilities, stadiums, hospitals, schools, data centres, and similar sites. Producing biogas and water from food residues and using them as heat, electricity, or water within facilities; reusing wastewater as reclaimed water; and enabling facilities to provide electricity, water, and heat as community hubs during disasters can provide entry points through which people and society experience Resilience Eco Society® in their everyday lives.

When a circular society has been realised, conventional recycling centres and waste-treatment facilities will no longer be merely places where waste is treated. They can evolve into Zero-Waste Hubs—resource-regeneration facilities and marketplaces for regional resources—that support local society and daily life. For example, they may become places for local learning, interaction, employment, recreation, and innovation. By serving as sites for resource circulation and learning in normal times and as community hubs providing electricity, water, heat, and evacuation functions during disasters, they can contribute to greater resilience across municipalities and living areas.

The Group is expected to connect waste, water, and energy in ways suited to local challenges and provide social infrastructure that can be operated over the long term. In this context, two factors are particularly important: affordability and scalability.



Figure 4-15: Pathway to Resilience Eco Society®

First, solutions must be affordable for municipalities, companies, and local communities to introduce and maintain over time. **Affordability** requires not only that systems can be implemented at a reasonable cost, but also that they can continue to be operated and maintained sustainably over the long term. This is particularly important for social infrastructure such as waste treatment, water treatment, water reuse, biogas production, and methanation, which are expected to support the foundations of local communities long after their initial installation. An operable and sustainable cost structure is therefore essential.

At the same time, solutions must be **scalable**, capable of being deployed across multiple regions, countries, and business domains while adapting the design to local characteristics. If Resilience Eco Society® were a model viable only in a limited number of advanced regions, it would not lead to transformation of society as a whole. Necessary functions must be combined and designed at affordable costs and in operable forms according to local finances, management systems, human resources, existing infrastructure, and resident needs. At the same time, insights gained in one region should not simply be transplanted to another; the model must have the flexibility to be adapted and scaled to local characteristics. Rather, technologies, operating models, financing arrangements, and partnerships must be reconfigured according to local circumstances, including waste characteristics, water demand, energy demand, natural conditions, regulatory frameworks, public finances, and community needs.



Figure 4-16: Resilience Eco Society® contributing to local communities.

Evolution of the Business Portfolio

Accordingly, the Kanadevia Group will evolve its business portfolio from "businesses that build equipment" to "businesses that implement regional circulation." Rather than viewing the Environment Business, Machinery Business, Infrastructure Business, and Carbon Neutral Solution Business only as separate business fields, we will reorganise them as integrated value propositions. These propositions will support regional circulation, decarbonisation, conservation of natural capital, disaster prevention, and the well-being of people and society.

For waste-carbon-energy circulation, we will combine Waste to X, CCUS, CO_2 capture and utilisation, methanation, hydrogen, biogas, heat supply, recovery of metals and minerals, reuse of incineration residues, facility life extension, core renovation, and long-term operation and maintenance, with Waste to Energy as a foundation.

For circulation related to water, soil, biological resources, and food, we will connect water treatment, seawater desalination, wastewater treatment, reclaimed-water use, sludge recycling and resource recovery, Phosphorus and nitrogen recovery, biogas, fertiliser production, and related activities with agriculture, energy, and living infrastructure. This area is not yet presented as a complete strategy, but represents an important direction connecting the Group's existing businesses with future growth potential.

We position the Water Business around water utilisation, sludge and biogas businesses around resource and energy circulation, and the hydraulic gate business around flood control and disaster prevention, linking each area to regional resilience.

For disaster prevention and regional resilience, we will contribute to climate change adaptation and stronger regional resilience through hydraulic gates, steel penstocks, Flap Gate-type flood-protection equipment, and maintenance, repair, and renewal technologies. By combining renewable energy, heat supply, water treatment, and disaster-prevention functions, we will enhance business values supporting community safety and security.

(4) Just Social Implementation and Incorporation into Management

Delivering Technology in Forms That Can Continue to Be Used

In implementing Resilience Eco Society® in society, the Kanadevia Group will adopt affordability and scalability as common principles for commercialisation. For new technologies and business models, the Group will assess not only their technical feasibility, but also their lifecycle economic viability for long-term use by customers and local communities, business viability, and the feasibility of their operation and maintenance. The Group will also place importance on scalability, so that technologies and business models can be deployed according to the natural conditions, regulatory frameworks, financial circumstances, demand, and other characteristics of each region. By reflecting these considerations in investment and commercialisation decisions, the Group aims to achieve both the creation of environmental and social value and sustainable business growth.

A leading example is Kanadevia Inova's positioning of affordability and scalability as concrete foundations supporting its business. Centred on its Waste to Energy business, Kanadevia Inova has a broad range of capabilities related to waste-treatment businesses, including technology development, EPC, O&M, asset management, project development, and financing. This implementation capability enables Kanadevia Inova not only to design and construct waste-treatment facilities, but also to structure projects, arrange financing, operate the facilities, and deliver solutions that create value over the long term.

The long-term operation of customer facilities is also relevant to both the conservation of natural capital and the creation of business opportunities. For example, if water-treatment facilities do not operate properly, pollution of watersheds caused by wastewater and other discharges may not be remediated and may persist. WtE facilities, water-treatment facilities, wind power generation facilities, and disaster-prevention infrastructure also remain closely connected to local environments and the foundations of daily life long after delivery. Long-term operation, maintenance, repair, renewal, data-enabled operational support, and the development of service-based offerings are therefore not merely after-sales services. They support affordability and scalability and form part of the management strategy underpinning Resilience Eco Society®.

Going forward, the Kanadevia Group will extend the implementation capabilities it has developed through WtE to next-generation fields such as CCS, CCU, WtX, biogas, water treatment, reclaimed-water use, and methanation. Through this evolution, the Group will move beyond being an equipment provider and become an organisation that advances social implementation by starting with regional challenges and combining technologies, business models, financing, operations, and partnerships.

Regional Co-creation Strategy for Circular Businesses

A circular society cannot be realised by the Kanadevia Group alone. Implementation becomes possible when companies that design materials, construct buildings, generate waste, and use resources, together with municipalities, financial institutions, agriculture and forestry operators, and local residents, share the same future vision and contribute their respective roles.

For regional circular economies to flourish in diverse locations around the world, effective end uses are needed through which recycled energy and materials can be utilized within local economies. A Zero-Waste Hub, for example, is not simply a waste-treatment facility. It has the potential to serve as a starting point for new businesses, materials, energy, education, and culture, and to function as an incubation centre that helps address regional characteristics and challenges.



Based on plant engineering and manufacturing technologies, the Group aims to build together with business partners, municipalities, and local communities a vision of the world that only our Group can realise. This is our Regional Co-creation Strategy for Circular Businesses. Under this strategy, technologies and services are not introduced unilaterally; regional needs and social challenges are incorporated from the business-design stage, solutions are co-created with customers and communities, and they are implemented in forms that can continue to be used.

The Group is already advancing dialogue and collaboration with customers and local communities across its businesses. Co-creation with customers, municipalities, local communities, contractors, research institutions, financial institutions, urban development companies, and other stakeholders will be expanded and further enhanced, not as a collection of individual projects, but as a strategic co-creation platform supporting the implementation of regional resource circulation (see **Appendix E**).



Figure 4-17: Circular Business and Regional Co-creation Strategy

Capability x Trust x Connections

Resilience Eco Society® cannot be realised through environmental value alone. Even when technologies are introduced, they will not create long-term social or corporate value unless local communities accept them, customers can continue using them, and workers and supply chains can participate safely and fairly.

Just social implementation means co-creating initiatives that generate environmental value in forms that regions and customers can continue to use, while considering the distribution of benefits and burdens. This approach positions "Maximize people's well-being" not as a matter confined to human resources measures or CSR, but as a management issue encompassing both the people affected by the business and the people who support the business.

The common foundation supporting this implementation is "**Capability x Trust x Connections**." Capability means the ability to continue implementing technology reliably with safety, quality, skills, and expertise. Trust is the foundation for sustaining business over the long term through relationships with customers, municipalities, local communities, suppliers, contractors, and investors. Connections are the relationships through which circulation that cannot be realised by the Kanadevia Group alone can be implemented together with diverse stakeholders.

Safety, human rights, skills, quality, compliance, supply chain management, and trust with local communities are not matters to be newly developed after 2030; they are prerequisites for implementing Resilience Eco Society®. Over the next several years, the Group will advance initiatives to incorporate these elements into management and the execution processes of major businesses.

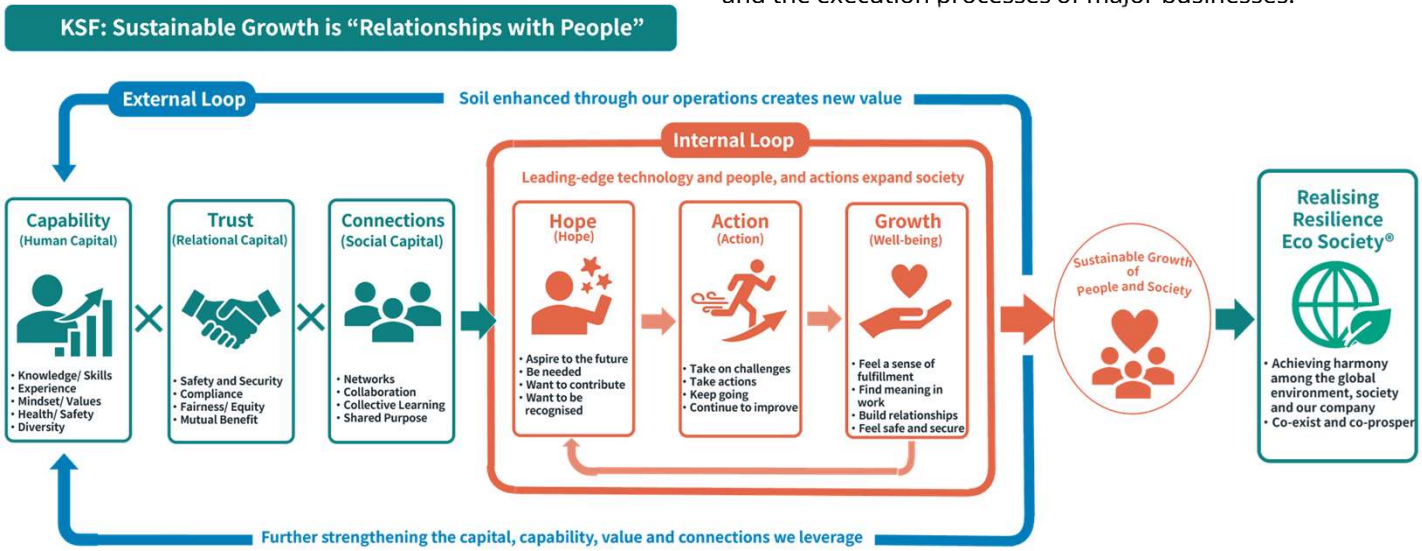


Figure 4-18: Capabilities x Trust x Connections

For people working either within the Group or for its suppliers, we aim to improve well-being by enhancing safety, human rights, skills, pride, and engagement. At the same time, for regions and customers, we contribute to well-being by improving safe and secure living foundations, sanitation, public health, access to energy, and regional resilience. We will strengthen "Capability x Trust x Connections" as the common foundation linking these dimensions and move closer to a state in which all stakeholders can continue implementing technologies safely, reliably, and justly.

Dependencies, impacts, risks and opportunities related to people and society, financial-impact pathways, metrics, and outcome evaluation are not currently at the same level of maturity as those for climate and nature. With reference to TISFD Beta, this report presents a preliminary mapping based on information currently available and existing initiatives. We will continue to enhance human rights due diligence, sustainable procurement, occupational safety, skills transfer, dialogue with local communities, benefits for customers and users, and visualisation of social impacts, thereby connecting environmental value to social value and corporate value.

Incorporation into Management

The Kanadevia Group will reflect changes in material risks, opportunities, and related matters concerning Climate, Nature, and People & Society in the direction of its business portfolio, research and development, investments, customer value propositions, and partnerships. In particular, the Group recognises decarbonisation, resource circulation, water, disaster prevention, and regional resilience as medium- to long-term business opportunities and will strengthen the competitiveness of its existing businesses while creating new business models.

The business environment towards 2050 is subject to uncertainties relating to the pace of progress in climate and resource-circulation policies, technology maturity, resource and energy prices, customer demand, the physical impacts of climate change, and the condition of natural capital. Taking these potential future changes into account, the Group will continuously assess both the competitiveness of its existing businesses and the potential for expansion into growth areas, while enhancing the resilience of its business portfolio so that it can create economic, environmental, and social value simultaneously.

Towards 2030, the Group will support customers and local communities in their transition to Carbon Neutrality through its major businesses. From the early to mid-2030s, the Group will progressively advance the social implementation and commercialisation of next-generation decarbonisation-related technologies and business models, while exploring how these can be connected to regional resource-circulation models towards 2040.

Towards 2040, the Group will develop these initiatives into regional resource-circulation platforms that connect resources, water, energy, and disaster-prevention functions, and will expand its current activities in a more strategic, organisational, and multi-regional manner.

Towards 2050, the Group will enhance the potential for deployment of regional Resilience Eco Society® models that address Climate, Nature, and People & Society in an integrated manner.

The following section outlines the direction of transition towards 2030, 2040, and 2050 based on this management strategy.

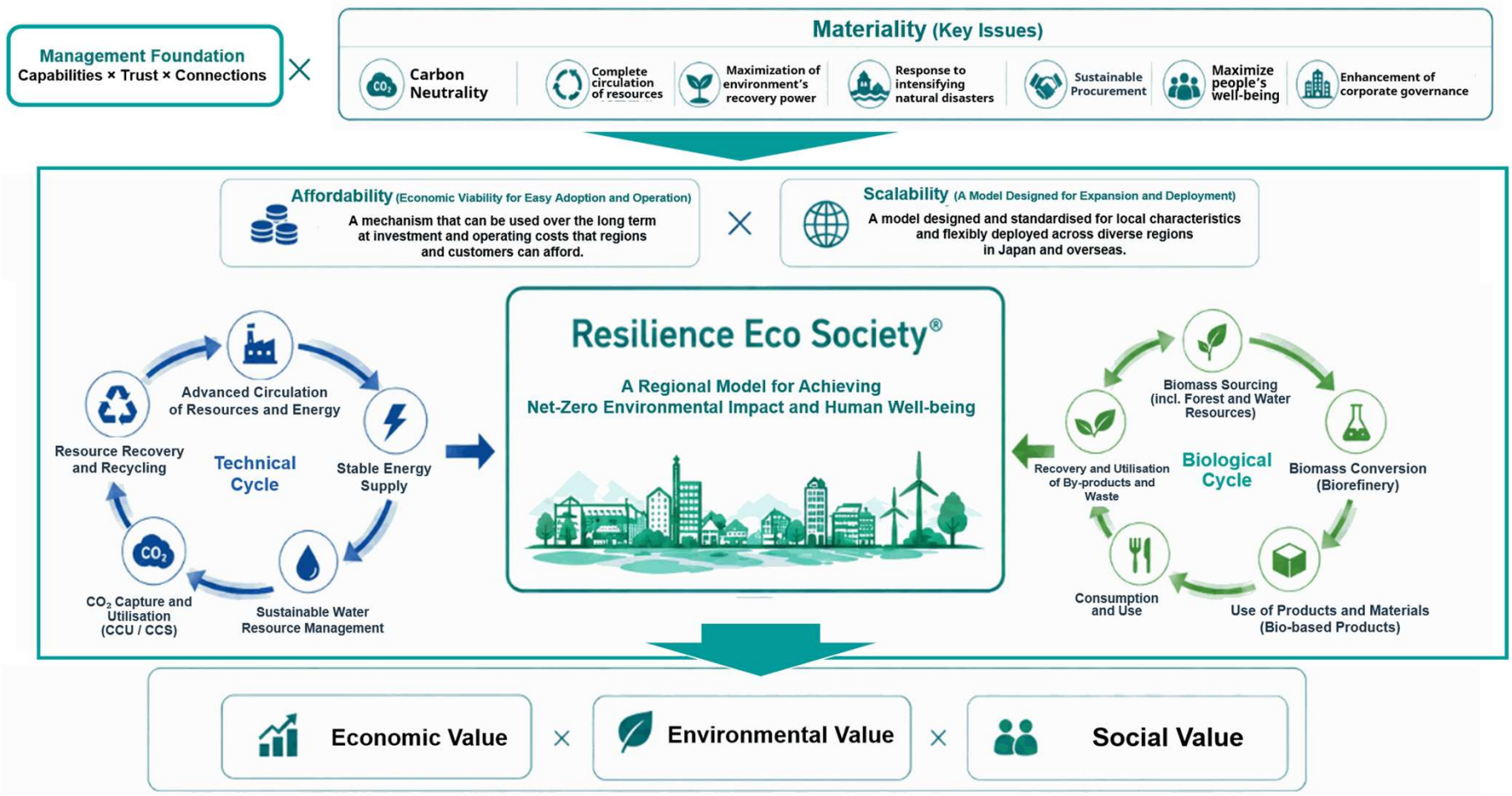


Figure 4-19: Realising Resilience Eco Society®

4.9 Transition Plan

(1) Transition to a Phased Circular Society

A Circular Society in Which Diverse Participants Share a Future Vision

A circular society cannot be realised through the technology of a single company. Companies that design materials, companies that construct buildings, companies that generate waste, companies that use resources, municipalities, financial institutions, agriculture and forestry operators, and local residents must share a common vision of the future and bring together their respective roles. This requires connecting diverse expertise, ensuring safety, quality, and compliance in recycling processes, advancing dialogue with industry and local communities, and developing institutions and business models. It is also necessary to combine optimal technologies and establish forms that can be operated over the long term based on regional differences in waste characteristics, water demand, energy demand, industrial structures, financial conditions, and resident needs.

Transforming Technology into Socially Implementable Infrastructure

A strength of the Kanadevia Group is its ability to combine technologies in waste treatment, water treatment, energy, disaster prevention, industrial machinery, and other areas with business models and partnerships, transforming advanced technologies into infrastructure that can be socially implemented.

Beyond responding to the Group's own environmental and social risks, we aim to transform into a sustainability infrastructure platform provider that supports customer and regional transitions and simultaneously creates environmental value, social value, and business value. **The Transition Plan positions the first stage as "foundation development and implementation in major businesses," the second stage as "integrated management and expansion into regional co-creation," and the third stage as “establishment and replication and scaling across regions as regional models.”**

A Three-stage Transition Pathway

In the first stage, from the perspectives of Climate, Nature, and People & Society, we will identify the critical technologies, people and skills, and supply chains needed for business transformation. At the same time, in major businesses, we will develop implementation rules and management foundations to incorporate the transition to Carbon Neutrality, reduction of resource and water use and environmental impacts, and consideration for safety and human rights into business decision-making.

In the second stage, we will develop the management foundations built around individual themes and transition towards mechanisms that manage environmental, human-rights, safety, quality, and other issues collectively. We will also expand the scope of management from our own operations and individual projects to regional and value chain contexts that include customers, municipalities, local communities, contractors, suppliers, and other stakeholders.

In the third stage, we will integrate mechanisms that solve climate-, nature-, and people- and society-related issues together into Resilience Eco Society® regional models as a package of “just social implementation.” These models aim to operate decarbonisation, resource circulation, water circulation, regional resilience, well-being, and other outcomes not as separate results, but as one regional system in which they enhance one another's value.

(2) Transition to Carbon Neutrality

Connecting Decarbonisation Technologies to Social Implementation

In the transition to Carbon Neutrality, the Kanadevia Group will develop business opportunities that support decarbonisation of customers and regions, in addition to reducing its own emissions. Businesses for decarbonisation are positioned not as a standalone field separate from resource circulation or regional resilience, but as an important portfolio that supports both customer transitions and reduced regional environmental impacts through the Group's major businesses.

The Group possesses technologies in a wide range of fields, including Waste to Energy (WtE), biogas power generation, biomass power generation, wind power generation, process and nuclear-related equipment, hydrogen production systems, methanation systems, and CO_2 capture and utilization. By combining these technologies, we aim to support the gradual transition from a society reliant on fossil fuels to one underpinned by non-fossil energy. Hydrogen production systems are also equipped with water treatment facilities to treat the water used as feedstock for hydrogen production.

Transporting Non-fossil Energy

The transition to a carbon-neutral society requires mechanisms connecting regions rich in renewable energy with regions that consume large amounts of energy. In renewable-energy supply regions, green hydrogen can be produced using green electricity[82)] such as Wind Power Generation and converted into storable and transportable energy carriers such as green ammonia and e-Methane.

The Kanadevia Group has a portfolio of technologies that can support this energy transition, including wind power generation, hydrogen generation systems, methanation systems, process and nuclear-related equipment, and CO_2 capture and utilisation technologies. Rather than providing individual technologies alone, we will advance the development of decarbonisation solutions that combine multiple technologies, tailored to regional and customer energy demand, infrastructure, institutional conditions, and cost constraints.

Bringing Carbon Circulation Closer to Everyday Life

Our methanation catalyst technology is characterised by low-temperature, high-speed, and compact operation, creating potential for deployment not only by manufacturers with large-scale energy demand, but also at general factories, commercial facilities, apartment complexes, resort facilities, and many other places where people gather. Such technology has the potential to make carbon circulation not something exceptional, but an accessible option for regions and customers.

Bioethanol produced from paper waste and other materials contained in municipal solid waste is also expected to be used as feedstock for Sustainable Aviation Fuel (SAF), denitrification agents in water treatment, plastic raw materials, and other applications, and may contribute both to decarbonisation of the transport sector and to building a circular economy. Combining waste treatment, fuel production, CO_2 capture, e-Methane production, energy storage, and the use of renewable energy can lead to new business models that circulate waste, water, carbon, and energy.

Evolving Waste to Energy into a Hub for Carbon Circulation

The transition to Carbon Neutrality requires a gradual shift from a society dependent on fossil fuels to one based on non-fossil energy, which in turn requires **transporting energy from "renewable-energy-exporting regions" to "renewable-energy-importing regions."** In renewable-energy-exporting regions, green electricity such as wind power is used to operate hydrogen-generation systems and produce green hydrogen. This hydrogen is converted into storable and transportable carriers such as green ammonia and e-Methane and transported to renewable-energy-importing regions. Through Waste to Energy, biogas power generation, biomass power generation, wind power generation, process and nuclear-related equipment, hydrogen-generation systems, methanation systems, carbon-capture equipment, and other technologies, the Kanadevia Group supports the transition to a decarbonised society.

One example of an initiative aligned with policy direction in Japan's GX Strategy is bioethanol production. As a next-generation fuel derived from renewable resources, bioethanol can contribute to decarbonisation of the transport sector and the development of a circular economy. The Group has established technology that uses paper waste contained in municipal solid waste as feedstock, enabling stable feedstock procurement and bioethanol production. Bioethanol can be used for SAF, denitrification agents in water treatment, plastic feedstocks, and other applications. Converting all captured CO_2 into e-Methane requires large quantities of low-cost green hydrogen, and any CO_2 that still cannot be utilised would need to be stored. The Group has technologies in wind power generation, hydrogen-generation systems, methanation, and will pursue business expansion through technology and business collaboration across the entire value chain, including CO_2 capture and large-scale battery-storage technologies.

We are also advancing innovation towards Carbon Neutrality in the Waste to Energy Business. By combining high-CO_2-concentration waste combustion technology, CCUS, methanation, hydrogen utilisation, resource recovery from incineration residues, and other technologies, we aim to evolve Waste to Energy facilities from plants that simply treat waste and generate electricity into hubs that circulate carbon, energy, and resources. If high-CO_2-concentration waste combustion technology were introduced and approximately 10 million tonnes of waste were incinerated annually, calculations indicate that approximately 3 million tonnes of e-Methane could be produced from captured CO_2 using methanation technology.

However, social implementation of these technologies requires consideration not only of technical feasibility, but also of implementation costs, operability, safety, institutional compatibility, availability of green hydrogen, customer investment decisions, and other factors. Through R&D, demonstrations, dialogue with customers, and monitoring of institutional developments, the Group will steadily improve the feasibility of commercialising Carbon-Neutral Waste to Energy.

Supporting Customer and Regional Transitions

Scope 3 Category 11 accounts for approximately 80% of the Kanadevia Group's total Scope 3 GHG emissions. Within this category, emissions generated when customers use Waste to Energy facilities are particularly large, and one of the main factors is plastic contained in the waste used as feedstock. Accordingly, in **the transition to Carbon Neutrality, it is important not only to reduce the Group's own emissions, but also to work with customer municipalities and local communities to combine plastic reduction, separation and resource circulation, facility upgrades, introduction of CCUS, and other measures.**

Emission reductions at Waste to Energy facilities cannot be achieved solely by improving equipment efficiency. They are closely related to waste characteristics, local waste policies, separation and collection systems, behavioural changes among residents and businesses, municipal finances, and institutional support measures. By developing CCUS-related equipment that is easier for customers to introduce and by adding and upgrading functions at existing Waste to Energy facilities, the Group aims to contribute to the Carbon-Neutral transition of customers and regions.

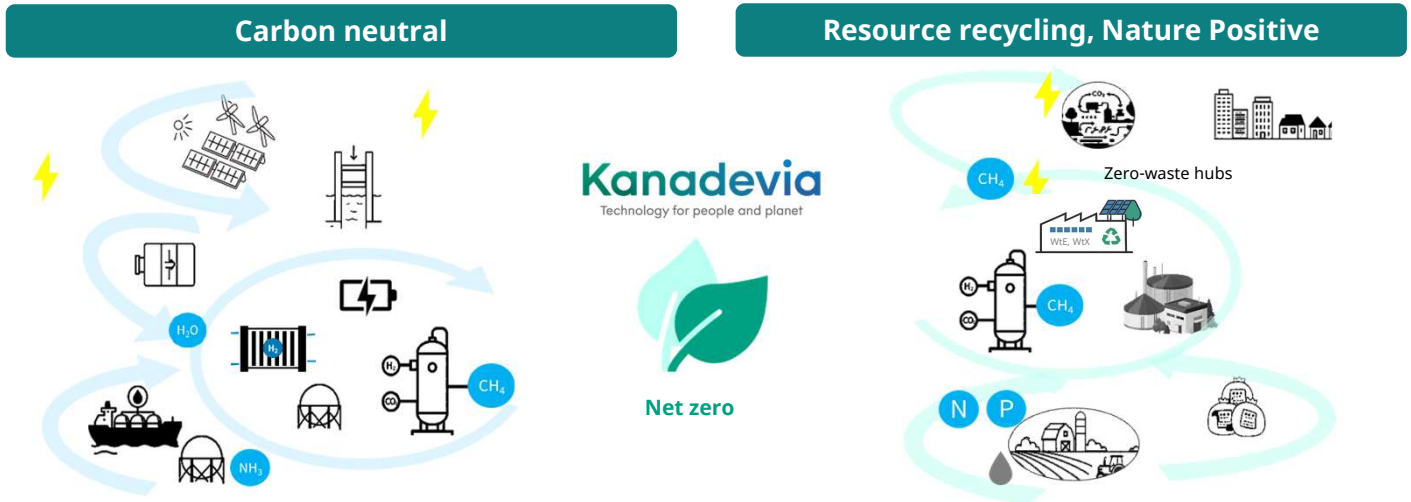
Scope 3 Category 1 is also highly important, as it represents emissions associated with purchased goods and services. For procurement of steel, concrete, equipment, components, construction and installation work, maintenance-related services, and other items, the Group will focus on measuring emissions, adopting low-carbon and low-environmental-impact materials, engaging with suppliers, and reflecting these considerations in procurement criteria. Together, these actions can enhance environmental value across the entire life cycle of products and facilities.

At the same time, the Group will advance technical and business contributions that support customers in achieving Carbon Neutrality. Towards a hydrogen-based society, in regions where renewable energy or other non-fossil power sources can be used, there is potential to combine Water Electrolysers, hydrogen-related equipment, methanation systems, pressure vessels, fuel tanks, technologies related to ammonia utilisation, and other solutions to support customer decarbonisation. By proposing integrated systems that combine multiple technologies rather than limiting proposals to plant construction, we will advance business opportunities that support customers' energy and fuel transitions.

The Wind Power Generation Business is also an important business area contributing to Carbon Neutrality for customers and regions. Through offshore wind power generation, onshore wind power generation, related equipment and structures, O&M, and other activities, we contribute to expanding renewable-energy supply. We will consider business opportunities that support the spread of renewable energy while taking into account policy trends, demand outlooks, technology development, and the potential for collaboration with partners.

Furthermore, Waste to Energy projects in open dumping areas may contribute to Carbon Neutrality for customers and regions. Methane generated from waste that is openly piled or landfilled is a greenhouse gas with a significant impact on climate change. Properly treating this waste and combining treatment with energy recovery, CO_2 capture, methanation, and other measures can not only curb GHG emissions, but also improve public health, support regional energy supply, and reduce dependence on fossil fuels.

In addition to regions where the Kanadevia Group already has a business footprint, we will consider opportunities that contribute to Carbon Neutrality for customers and regions where there is substantial potential to reduce environmental impacts. We will evaluate region-specific environmental resilience, social issues, institutions, and customer needs when considering these opportunities. With awareness of both reductions in our own emissions and reduction contributions to customers and regions, we will connect transition risk, business opportunities, emission-reduction effects, and management metrics from a TCFD perspective.



Carbon Neutral Solution Business in the value chain

Kanadevia Group will accelerate decarbonisation across the value chain by linking green hydrogen, storage batteries, CCU(S) and other technologies around methanation technology and waste-to-energy (WtE).

- Utilisation of renewable energy through catalytic technologies.
- Establish CO_2 recovery technology by 2030 and develop e-methane utilisation business in the 2030s.
- Value chain linkages, regional linkages

Establishment of a local resource-recycling society

Kanadevia Group will build a Resilience Eco Society® based on regional resource recycling by integrating technologies such as recycling, water treatment, methanation and hydrogen production, with a focus on waste-to-energy (WtE) incineration power generation.

- Optimised treatment by standardised plants
- The company's main focus is on the development of a Resilience Eco Society® that integrates recycling, water treatment, methanation and hydrogen production technologies.
- Reduction of environmental impact and accident risk

Figure 4-20: A Group of Innovations Supporting the Strategy

(3) Transition to Net-zero Environmental Impacts

A World Where No Waste Is Wasted

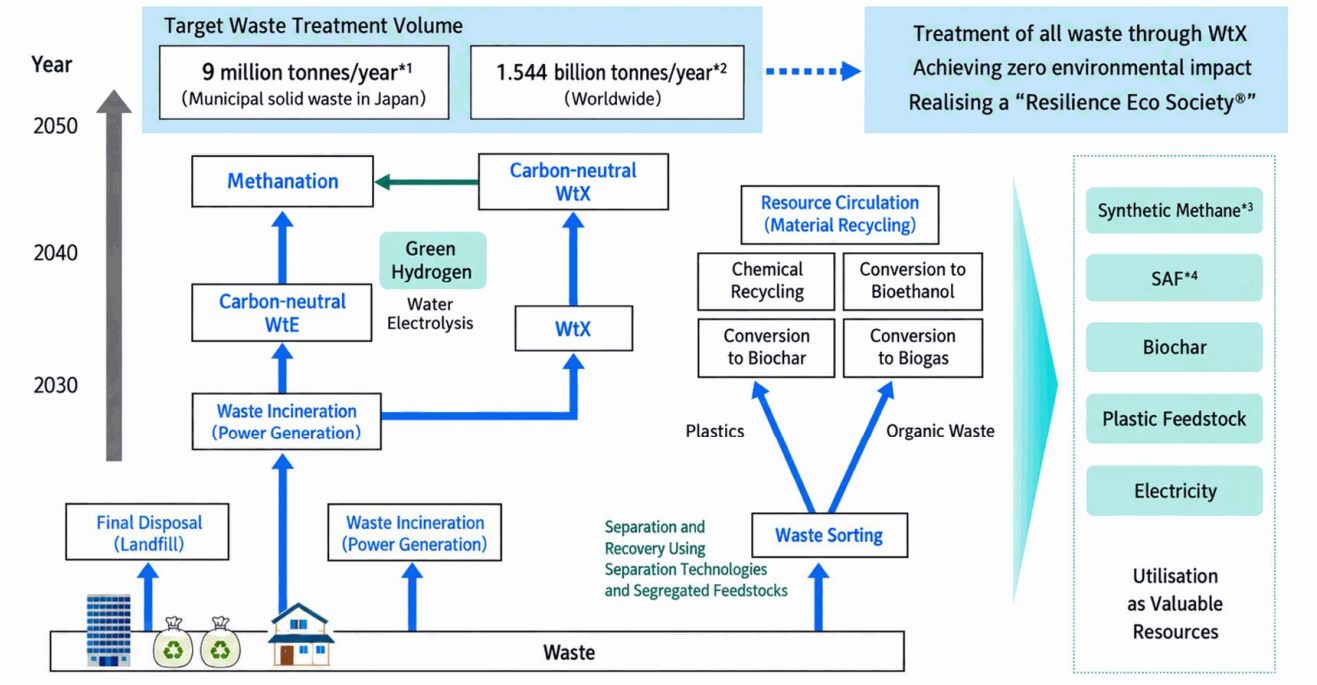
Towards net-zero environmental impacts, the Kanadevia Group aims to realise Resilience Eco Society® as **"a world where no waste is wasted."** Global waste generation is expected to continue increasing, particularly in Africa, Latin America, Asia, and other regions, making it important to reconsider waste not simply as something to be treated but as a resource generated steadily within each region.

By combining Waste to Energy with material recycling, chemical recycling, biogas, bioethanol, biochar, metal recovery, resource recovery from incineration residues, water treatment and sludge recycling and resource recovery, and other solutions, we aim to form circular systems connecting waste, water, carbon, energy, materials, soil, and food. This is not only a means of reducing environmental impacts, but also **a transition to business models that fully utilise regional resources and create new value.**

Evolution from Waste to Energy to Waste to X

In the Waste to Energy/Waste to X Business, we regard waste as a resource supplied steadily by each region and advance technology development that enables recovery of green electricity, biomethane, green ammonia, green hydrogen, recyclable chemicals and metals, and other forms of value.

By converting waste not only into energy but also into materials, chemicals, fuels, water, fertilisers, and other resources, Waste to X has the potential to serve as a foundation for comprehensively addressing regional environmental challenges.



*1 Based on the Ministry of the Environment's medium- to long-term scenario for achieving net-zero greenhouse gas emissions in the waste and resource circulation sector by 2050. It is assumed that 50% of Japan's municipal solid waste in 2050 (18 million tonnes/year) will be treated.

*2 Estimated based on data from the World Bank (2026), *What a Waste 3.0: Global Snapshot of Solid Waste Management toward Circularity until 2050.* Of the projected global waste generation of 3.86 billion tonnes in 2050, 40% (1.544 billion tonnes/year) is assumed to be treated (including Inova).

*3 Synthetic methane produced from renewable hydrogen and CO_2.

*4 SAF (Sustainable Aviation Fuel): Carbon-neutral aviation fuel produced from non-food biomass feedstocks, used cooking oil, municipal solid waste and other feedstocks.

Figure 4-21: Innovation in the Waste to Energy/Waste to X Business towards net-zero environmental impacts

In the future, we aim to position advanced Waste to X facilities as core circular infrastructure in each region and provide resource-circulation services, water treatment, and energy supply together. By combining, for example, compact methanation plants in urban areas with biological methanation plants in regions rich in biomass, we will design energy and resource circulation suited to regional characteristics.

It is also important to provide not only large-scale plants for major Asian cities, but also standardised, lower-cost compact Waste to Energy/Waste to X systems for small and medium-sized cities. This reflects our view of scalability not simply as increasing size but as the ability to deploy solutions in forms suited to regional scale, financial conditions, and operating capabilities.

Building Zero-Waste Hubs

An important direction towards net-zero environmental impacts is to evolve Waste to Energy facilities into “Zero-Waste Hubs.” In the future, we aim to limit incineration to residues that are difficult to recover as resources and to use plastics, metals, organic materials, paper, wood waste, sludge, and other materials in multiple stages according to their value.

Achieving this requires combining technologies that characterise waste composition using AI and sensors, advanced sorting and separation, gasification, methane fermentation, biochar production, metal recovery, CO_2 capture and utilisation, and other processes. Initiatives such as WtS, in which waste incineration facilities are linked with industrial complexes and other facilities to supply steam and heat, can also provide options for advancing regional and industrial resource and energy circulation.

However, these concepts need to be considered not only in terms of technical potential, but also in terms of economic viability, safety, operability, institutions, and regional acceptance. The Kanadevia Group aims to strengthen execution capabilities in both technology development and business-model development, thereby simultaneously reducing regional environmental impacts and achieving business growth.

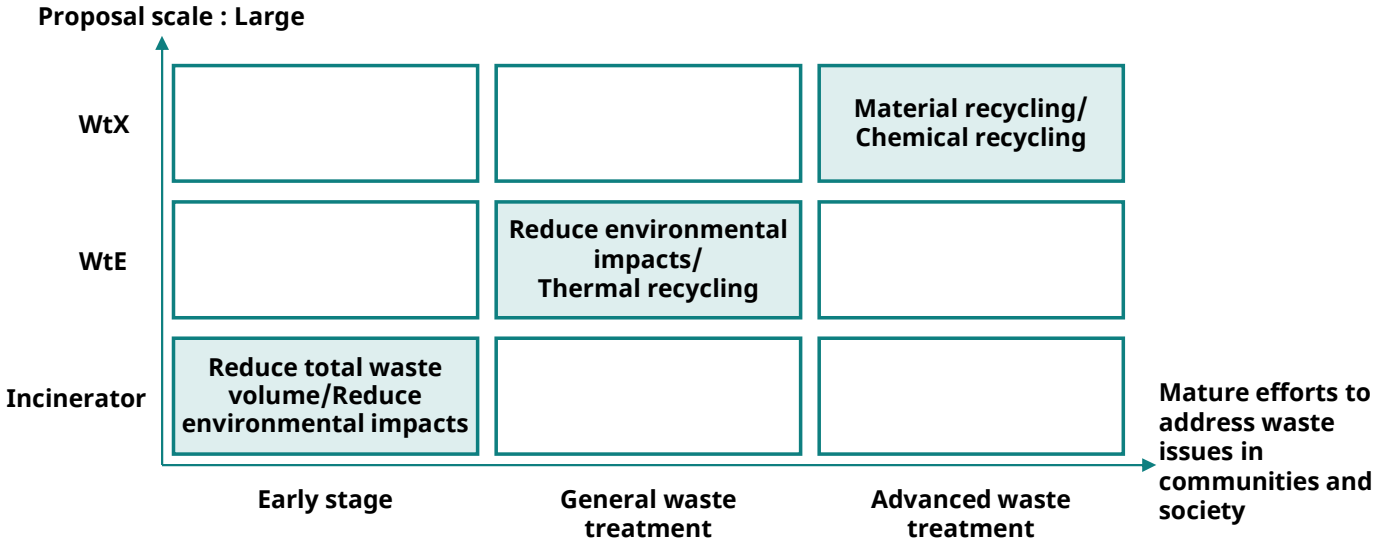


Figure 4-22: Maturity of Initiatives Addressing Waste Issues and Business Patterns

Business Models Suited to Regional Maturity

The maturity of waste treatment and the nature of environmental challenges differ substantially by region. According to the World Bank's "What a Waste 3.0," municipal solid-waste collection rates differ significantly by income level: 28% in low-income countries, 61% in lower-middle-income countries, 89% in upper-middle-income countries, and 99% in high-income countries. In regions where landfill disposal remains mainstream, Waste to Energy that combines sanitary waste treatment with energy recovery can be an effective option for reducing environmental impacts and improving living environments. In large cities in the Middle East, Africa, and other regions, introduction of large-scale Waste to Energy can play an important role as an economically viable environmental-impact-reduction solution that replaces landfill disposal.

In regions where the transition to a circular economy is advancing, Waste to X business models that recover waste as resources at the elemental level and convert it into materials, chemicals, fuels, and energy become increasingly important. If chemical and material recycling of plastics advances, demand for conventional Waste to Energy may change. Accordingly, the Kanadevia Group will consider diverse business models that include Waste to X businesses addressing a broad range of customer needs, material recycling, collaboration with industrial-waste treatment companies, asset management, and other services.

In this way, by combining Waste to Energy, Waste to X, resource recycling, biogas, biomethane, asset management, and other solutions according to the maturity of regional initiatives, we will provide integrated proposals to support Net-zero Environmental Impacts.

Contributing to Reduction of Open Dumping

In major cities in developing countries, development of waste and sewage-treatment infrastructure may fail to keep pace with urban population growth, and open burning, unsanitary landfill, and open dumping can become serious environmental and public-health challenges. An important aspect of the transition to net-zero environmental impacts is not simply moving generated waste to another location, but rapidly reducing accumulated waste and preventing creation of new landfills or expansion of existing open dumping areas.

The Kanadevia Group is advancing deployment of waste-treatment solutions, including Waste to Energy, in countries and regions across Asia, the Middle East, and elsewhere. Depending on the specifications of the facility introduced, incinerating waste can reduce its volume to approximately 3% of the original amount. Compared with landfilling the entire volume without incineration, this means that the land altered for landfill purposes could potentially be reduced to less than one-thirtieth. Limiting land use is important not only for conserving forests, agricultural land, water-source areas, and other natural environments, but also for preventing leaching of hazardous substances from waste piles, soil and groundwater contamination, and leakage of waste into the ocean.

However, the transition to net-zero environmental impacts cannot be completed simply by installing incineration equipment. Waste delivered to a plant differs substantially in composition depending on local separation systems, collection systems, moisture content, organic content, and the proportions of plastics and metals. It is therefore important to design multi-stage use of waste according to its value: high-value plastics and metals can be directed to recycling, organic waste such as food waste can be considered for Biogas production through methane fermentation, and combustible residues that are difficult to recover can be sent to incineration with energy recovery.

Compared with uncontrolled open burning or landfill, treatment in facilities equipped with advanced flue-gas treatment systems can also reduce emissions of air pollutants and help protect the health of local residents. Furthermore, by recovering useful metals from incineration ash, processing wood waste and paper into biochar for use as soil-improvement materials, and combining these activities with methane fermentation and water purification at sewage-treatment plants, waste treatment can be connected to energy recovery, resource circulation, and improvement of the water environment.

In this way, reducing open dumping sites involves more than introducing waste-treatment facilities. It is an integrated initiative that prevents marine pollution caused by waste leakage, conserves ecosystems, reduces risks of soil and groundwater contamination, improves public health, and supports regional energy supply. Although this is one of the more challenging areas of our circular-business and regional co-creation strategy, the Kanadevia Group will propose regionally circular business models that move final landfill volumes closer to zero while taking into account local institutions, finances, operating personnel, resident understanding, and partnerships.

Integrating Water Treatment and Resource Circulation

In the water production and Water Business, we will advance provision of decentralised and locally produced-and-consumed water-treatment solutions to address water challenges, maturity of initiatives, and budget scales that differ by region. In major cities in developed countries, important themes include extending the life of existing advanced large-scale facilities, improving energy efficiency, renewing equipment, combining facilities with renewable energy, and further integrating them with Waste to Energy and Waste to X facilities.

In developing countries and small and medium-sized cities, important factors include affordable implementation costs, ease of maintenance, use of Water PPP[95)], and wastewater treatment including nitrogen recovery and phosphorus recovery. There is also potential to contribute both to Carbon Neutrality and to a circular economy by combining biological methanation using biogas obtained through methane fermentation of sewage sludge and food waste with sewage-sludge incinerators, hydrogen production technologies, and renewable energy.

Extending the life of existing water and wastewater infrastructure is also important from the perspective of reducing environmental impacts associated with new construction.

In addition, for equipment that can substantially reduce environmental impacts when introduced, such as phosphorus recovery, nitrogen recovery, and mine-wastewater treatment systems, we will consider deployment in a wider range of countries and regions while developing sales and maintenance structures.

Environmental Contributions from Machinery and Infrastructure

In the Machinery Business, we will reduce environmental impacts during use and across the value chain by understanding the environmental impacts of procured components, procuring lower-impact materials and components, designing product structures that facilitate resource circulation, adopting BAT, and taking other measures. This is an initiative not only to improve the performance of individual products, but also to enhance environmental value across the entire life cycle, including procurement, design, use, maintenance, renewal, and disposal.

In the Infrastructure Business, we will advance longer life, greater resilience, maintenance and repair, and more advanced renewal technologies for existing facilities as part of climate change adaptation. Increasing the resilience of social infrastructure to heavy rainfall, strong winds, and other hazards supports regional safety and security while also helping reduce environmental impacts. When introducing new equipment, we will also develop mechanisms to procure lower-environmental-impact options for major raw materials such as steel and concrete.

Column: Exhibition Report

30th Conference of the Parties to the United Nations Framework Convention on Climate Change

The 30th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP30) was held in Belém, Brazil, in November 2025. At the Japan Pavilion, the Kanadevia Group presented a comprehensive waste-treatment solution centred on methane fermentation, biochar, and bioethanol production under the theme “Fully Utilising Waste As a Resource To Decarbonise Our Lives Globally.”

Many regions around the world face challenges related to sanitary waste treatment and methane emissions from the direct landfilling of food waste and other materials. Through our exhibition at COP30, we proposed contributions to climate change mitigation not only by reducing methane emissions from direct landfill, but also by linking methane fermentation, recovery, and utilisation - including use in gas turbines - with energy applications, as well as by storing carbon through biochar.

This package uses “organic waste,” including food waste, paper, and livestock manure, as feedstock and applies technologies held by the Group, such as Water Electrolysis, methanation, and zeolite separation membranes, to produce environmentally friendly energy such as high-purity methane and bioethanol. In addition to possessing these technologies, the Group can independently provide integrated services from facility design and construction through operations and maintenance, enabling us to offer a wide range of comprehensive solutions for treatment of organic waste.

Through these initiatives, the Group will contribute to building a society with net-zero environmental impacts by reducing GHG emissions, lowering environmental impacts, and pursuing other measures.



Figure 4-23: Innovative Waste Management to Achieve Circular Economy & Net-Zero GHG Emissions

(4) Transition towards “Maximize people’s well-being”

Responsibility as a Social Infrastructure Company

The transition towards “Maximize people’s well-being” provides the foundation for implementing the technologies and equipment offered by the Kanadevia Group in forms that are accepted by society and can continue to be used. It also supports the implementation foundation shown in the Value Creation Framework and connects environmental value to social value and corporate value. The Group's social infrastructure in waste treatment, water, energy, disaster prevention, and other areas must support everyday life under normal conditions. It must also continue functioning amid increasing uncertainty, including natural disasters, infectious diseases, regional conflicts, and extreme weather associated with climate change.

Accordingly, enhancing the safety, efficiency, and resilience of social infrastructure is an important responsibility for protecting people's living foundations, supporting peace of mind in local communities, and sustaining business continuity. The transition relating to people and society involves strengthening the safety and skills of own workforce, fair relationships with suppliers, the safety of customers and users, and trust from local communities, and is a prerequisite for socially implementing technologies that create environmental value.

The analysis of people and society differs from the analysis of climate and nature in terms of scope, measurement methods, and maturity of metrics. Accordingly, this plan starts from the preliminary mapping currently available while seeking to incorporate these matters into management and business decision-making in major businesses at an early stage and strengthen them over time.

Strengthening “Capability, Trust, and Connections”

The Kanadevia Group's initiatives relating to people and society are intended to translate “Maximize people’s well-being,” as shown in the Value Creation Framework, into practice through business. What matters here is not only the technologies that create environmental value. **Technologies take root in society and create long-term value only when they are supported by people who can operate them safely, workplaces that uphold quality and compliance, fair relationships with the supply chain, and trusted relationships with customers, municipalities, and local communities.**

The Group **positions “Capability,” “Trust,” and “Connections” as the foundations supporting the transition relating to people and society**. Capability means the ability of own workforce and value chain workers to execute business safely and reliably. Trust is the foundation for society to accept the continuation of our business through adherence to quality, safety, human rights, compliance, and accountability. Connections are relationships through which we work with customers, municipalities, local communities, NGOs, research institutions, financial institutions, and others to create feasible solutions suited to each region.

These foundations should not be developed only after technologies and business models have already been deployed; they need to be strengthened ahead of social implementation. By advancing recruitment and development of diverse talent, skills transfer, reskilling, Health and Safety, DE&I, and engagement as a coherent programme, we will develop a foundation that enables own workforce to exercise their capabilities. We will also manage quality, safety, human rights, compliance, psychological safety, and accountability as management issues, prevent misconduct, and, if problems occur, implement prompt corrective action and measures to prevent recurrence.

At our own sites, in addition to addressing occupational accidents, safety measures that reflect changes in working environments, such as heat associated with climate change, are important. At Ariake Works, for example, heat-shielding materials have been installed on building ceilings to reduce heat stress inside the plant during summer, improving working environment of own workforce and reducing heatstroke risk. This is a concrete practice that connects climate change adaptation with conservation of human capital.

Strengthening the Supply Chain and Frontline Operations

The social infrastructure sector cannot be completed by the Kanadevia Group alone; it depends on collaboration with contractors, suppliers, construction and operating sites, and local businesses. Accordingly, in the transition relating to people and society, it is important to strengthen supply-chain resilience and frontline implementation capabilities at an early stage.

Through SAQs, human rights due diligence, business partner surveys, and dialogue, we will improve fair business practices, Health and Safety, respect for human rights, quality, and environmental performance, while strengthening long-term relationships with key suppliers and supply stability. For small and medium-sized suppliers and contractors with limited capacity to respond, rather than simply requiring unilateral compliance with standards, we will emphasise early provision of information, dialogue, capability development, and reasonable transition periods.

At infrastructure sites, safety, quality, schedule, cost, environment, and human rights must all be addressed simultaneously. A foundation for business operations trusted by society is for every person working in the Group to understand the impacts of their work on citizens, users, and local communities, and to thoroughly uphold safety, quality, compliance, and respect for human rights at the frontline.

Regional Co-creation and Just Social Implementation

In the transition towards “Maximize people’s well-being,” it is important to share an understanding of business benefits and burdens, user safety, regional needs, and approaches to long-term operations through co-creation with customers, municipalities, local communities, NGOs, research institutions, financial institutions, and others. Social infrastructure for waste, water, energy, disaster prevention, and other needs supports sanitation, public health, access to services, disaster-response capacity, and regional employment, and needs to be implemented in forms that deliver benefits to people in vulnerable positions as well.

Particularly in emerging and developing countries and other regions where social infrastructure remains insufficient, improving infrastructure efficiency and resilience is an important initiative for supporting safe and secure lives for people and society. At the same time, the Kanadevia Group needs to understand imbalances in benefits and burdens and advance dialogue and access to grievance mechanisms and remedy. Continuous improvement is also needed so that nearby residents, service users, own workforce whose skills or roles may change, value chain workers with limited capacity to respond, and others are not left behind.

Through these initiatives, the Group will co-create technologies that generate environmental value in forms that regions and customers can continue to use and connect them to fair and inclusive social implementation. This is an important foundation for simultaneously creating environmental value, social value, and corporate value towards realisation of Resilience Eco Society®, as presented in **section 4.8**.

Early Incorporation into Management

Initiatives relating to people and society should not remain at the level of principles or CSR activities; it is important to incorporate them into management at an early stage. For human capital, human rights, DE&I, occupational health and safety, engagement, quality and compliance, and supplier management, we will clarify responsible departments, evaluation methods, escalation, and monitoring, and advance connections with ERM, internal control, order and investment decisions, procurement, and human capital management.

However, metrics and outcome measurement relating to people and society cannot immediately be developed at the same level of granularity as quantitative metrics for climate and nature. Accordingly, based on existing initiatives in occupational health and safety, human rights due diligence, supplier management, stakeholder dialogue, and regional resilience, the Kanadevia Group will develop over time the scope, evaluation methods, and management processes.

Over the medium to long term, we aim to integrate Climate, Nature, and People & Society perspectives into the business portfolio and regional co-creation business models. The goal is for businesses in waste, water, energy, disaster prevention, and other areas to produce outcomes for living environments, health, safety, access, employment, and regional autonomy in line with local challenges. While confirming both social value and corporate value, the Group will continuously improve its initiatives and contribute to Maximising people's well-being.

(5) Management and Enhancement Supporting the Transition

Management Connecting Strategy and Management Decision-making

The Transition Plan is not merely a means of presenting a future vision; it is a mechanism for connecting strategy, risk management, opportunity analysis, and metrics and targets to management decision-making. The Kanadevia Group will connect risks and opportunities related to Climate, Nature, and People & Society with capital investment, R&D, bid/no-bid decisions, procurement and supply-chain management, talent development, ERM, internal control, and other processes, thereby embedding them more clearly in business operations.

In this process, it is important to evaluate not only technical feasibility, but also economic viability, safety, human rights, regional acceptance, distribution of benefits and burdens, and the potential for long-term operation. Even technologies that create environmental value will not lead to sustainable value unless they are implemented in forms that customers and regions can continue to use.

Affordability and Scalability

The affordability emphasised by the Kanadevia Group does not simply mean lower prices. It means being easy to introduce, capable of continued operation, and compatible with regional finances, human resources, institutions, and maintenance capabilities. Similarly, scalability does not simply mean increasing size; it means the ability to reconfigure technologies and business models according to regional characteristics and deploy them across different regions and markets.

These two perspectives are important conditions for moving Resilience Eco Society® beyond a concept and implementing it as social infrastructure. By combining technologies, business models, people, supply chains, and trust with regions, the Group will pursue forms of transition that customers and regions can continue to use over the long term.

Progressive Enhancement of Metrics and Targets

To monitor progress of the Transition Plan, we will improve management accuracy for climate- and nature-related metrics, starting from existing goals and KPIs. For metrics relating to people and society, we will refine the scope, measurement methods, and management processes over time while referring to international discussions including TISFD Beta.

The analysis of people and society is still at an early stage. It is therefore important to distinguish its current maturity from that of climate and nature and to state clearly both the present position and the direction of further enhancement. The Kanadevia Group will continue to review the Transition Plan in light of changes in the business environment, technologies, institutions, and social expectations while advancing initiatives towards realisation of Resilience Eco Society®.

Executive Interview: Group CPO Interview

Putting "Maximize People's Well-being" into practice through people and organisational transformation



Taro Dohi

Group Chief People & Culture Officer, Senior Managing Executive Officer

Keeping in mind the people beyond our work

As Group CPO[96], my aim is to bring out the full potential of people and connect their strengths to the creation of value for our business and society. Kanadevia Group's Sustainable Vision includes the aim of “Maximize people’s well-being”. As Group CPO, the “people” I engage with most directly are each person working across the Kanadevia Group, both in Japan and around the world. However, when we consider who ultimately receives the value created by our businesses, its reach extends beyond the company.

At Kanadevia Group, we often use the term B to G, or Business to Government, to refer to our customers—local authorities. However, beyond them are always the citizens who live in those communities. In that sense, I believe we could also describe our work as B to G to C. Social infrastructure such as waste treatment, water, energy and disaster prevention ultimately exists to support people’s daily lives and safety. I believe it is important to remain conscious of how our work connects with the people beyond it, including people working in our supply chain, our customers and members of local communities.

I see Kanadevia Group as a company that not only addresses environmental challenges but also supports people's daily lives. Environmental value and social value cannot be separated; providing both is our raison d'être. That is why I want each person to recognise the value that their own work creates for society. Rather than simply carrying out the tasks they are given, I want each person to think for themselves about what our work means for society. Even if they did not fully understand our businesses when they joined the company, I want Kanadevia to be a company where, through their work, they can feel that working here has meaning. That, I believe, is one of the starting points for maximising people's well-being.

Human capital and sustainability are a single management agenda

I do not see human capital management and sustainability as separate agendas. To continue delivering value to the environment and society, the people and organisations responsible for doing so must themselves be sustainable.

The Kanadevia Group is currently in the midst of a major transformation involving business portfolio reform, global growth and stronger Group governance. The keys to achieving this transformation are our talent and organisational culture. A company cannot change simply by putting excellent systems in place. Systems and strategies can function only when our people understand what those systems and strategies are intended to achieve, and when there is a culture in which people can think for themselves, speak up and take action.

I feel that our people think carefully about the company and their work and have views of their own. At the same time, there are occasions when our people do not readily speak up of their own accord in settings attended by large numbers of people, such as internal training sessions and town hall meetings. Even when they have views, they may hesitate to express them openly. I believe this also points to challenges relating to organisational culture and psychological safety.

Transformation and innovation are unlikely to emerge from an organisation that merely “does what it is told without making mistakes”. Our people need to feel safe to speak up, think for themselves, exchange differing views, and take on challenges. I believe that embedding such a culture throughout the Group is an important part of my role as Group CPO.

From “HR that provides stability” to “HR that adapts to change”

In the past, HR systems tended to place emphasis on establishing a framework and operating it in a stable manner. However, as the business environment changes significantly, preserving a system simply because it has already been established must not become an end in itself. From the moment a system is introduced, we need to be prepared to continue reviewing it in line with changes both within and outside the company. I believe that is the level of commitment required.

For this to happen, it is also important for each person to have time to think, rather than being occupied solely with the work immediately in front of them.

Even if we say that we want to change the company or begin something new, we will not create the capacity to do so if we continue with all the work we have always done. We need to consider what to stop, what to change and what to start anew.

We need to envisage the organisation we aspire to become, look back from that future state to where we are today, and close the gaps one by one. The same applies to HR systems, talent development, recruitment and assignments. I want to create an environment in which, while considering what talent and skills our future business will require, each employee can shape their own career, learn and take on new experiences both within and outside the company.

From a global perspective, we also need to enable our people to move between Group companies and use the experience and knowledge gained by individuals for the benefit of the Group as a whole. Transforming Kanadevia Group into an organisation in which talent circulates across national and corporate boundaries will help support the globalisation of our business from a people perspective.

Towards a company where people can remain healthy, work for the long term and do good work

When thinking about people's well-being, one phrase I value is "working healthily over the long term".

Even if people feel their work contributes to society, they cannot continue making that contribution if their physical or mental health is compromised. Being able to work safely. Working in an environment free from excessive stress and harassment. Being able to maintain good health. And continuing to grow and contribute over the long term. I believe these should be considered together rather than as separate matters. Health, safety, psychological safety, ways of working and careers should not remain separate initiatives. I want to bring these elements together to create an environment in which each employee can perform at their best while in a better state of well-being.

It is also important not to regard the implementation of measures as an end in itself. When it comes to engagement, for example, rather than being elated or discouraged by individual results, we need to measure it continuously using consistent indicators, take action to address the issues identified, and then examine the results again. As far as possible, we need to make visible how investment in people leads to our people's growth, higher productivity, the creation of business results and corporate value, and use those findings to inform subsequent measures.

What I believe in is the “potential of people”

If asked what I believe in when carrying out this work, my answer would be the “potential of people”.

For a company to change, the people who work there must change as well. However, this does not mean that the company should change people unilaterally. Each employee needs to think about what they are capable of and what they want to do in the future, learn and take on challenges. The company must create the opportunities and environment that enable them to do so. I believe that, through the accumulation of these efforts, both the organisational culture and the company itself will change.

It is also important for Kanadevia Group to communicate more actively than before, both internally and externally, what we aim to achieve and how we intend to change. I believe that a message communicated externally is, at the same time, a message to employees. When members of management communicate their thinking in their own words, people outside the company receive that message, and it is then reflected back to employees. I believe that this repeated process helps to develop a shared understanding of the kind of company we aspire to become.

We aim to become a company that is chosen by many people who share our commitment to addressing environmental and social challenges and say, "I want to work here." At the same time, we aim to become a company where those who already work with us can find meaning in their work and continue over the long term to work healthily, remain energised and take on new challenges.

I believe in the potential of people. When individuals learn, grow and take on challenges, the organisation changes. When the organisation changes, the business changes. And the value created by the business helps to make society better.

Bringing out the potential of people and connecting their strength to the creation of value for our business and society: this is the “Maximize people's well-being” that I seek to achieve as Group CPO.



5

Risk and Impact Management

The Kanadevia Group aims to manage and continuously improve its approach to Climate, Nature, and People & Society-related dependencies, impacts, risks and opportunities by connecting them with business strategy, enterprise risk management, internal control, business decisions, and improvement activities.

#Management of Dependencies, Impacts, Risks and Opportunities

#Value Chain Management

#Progressive Enhancement



5.1 Basic Policy for Risk and Impact Management

Scope and Role of This Chapter

Under the governance structure presented in **Chapter 3**, this chapter explains how Climate, Nature, and People & Society-related dependencies, impacts, risks and opportunities are identified, assessed, managed, and monitored and how necessary remediation and improvement are carried out.

Chapter 3 described how the Board of Directors, management, Group CxOs, relevant committees, the ERM Department, business divisions, and responsible functions oversee and manage dependencies, impacts, risks and opportunities and connect them to management decision-making. This chapter, by contrast, focuses not on committees and allocation of responsibilities, but on how these matters are identified in practice and incorporated into management processes.

Specifically, this chapter addresses definition of the analytical scope, identification of dependencies, impacts, risks and opportunities, assessment of materiality, prioritisation of matters for management, connection to ERM, internal control, and business decisions, monitoring, remediation and improvement, and linkage to remedy.

Differences in Analytical Scope and Maturity

Climate, Nature, and People & Society do not have the same analytical scope, data availability, assessment methods, or level of management maturity.

For climate and nature, the Kanadevia Group has advanced a certain level of analysis and management using previous TCFD/TNFD approaches, the LEAP Approach, ENCORE analysis, environmental data, and other information. For nature-related dependencies, impacts, risks and opportunities, the Group considers the points of contact between business activities and natural capital and will connect the results to future risk management and business decisions. People and society, meanwhile, are addressed through a preliminary mapping with reference to TISFD Beta using currently available information from human rights due diligence, business partner surveys, occupational health and safety, our people's voices, dialogue with local communities and customers, and other sources.

The Group does not yet obtain or assess data for all stakeholders across the same scope and at the same level of granularity as for climate and nature.

Accordingly, while this chapter addresses climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities together, it does not present them as having been analysed at the same level of granularity. For people and society, the current level of progress and limitations are stated clearly together with the direction for future enhancement.

Preliminary Mapping of People & Society and Future Enhancement

The analysis of people and society is an initial step in clarifying the relationship between the Kanadevia Group's businesses and people and society as a management issue. The scope includes own workforce, value chain workers, local communities, customers and users, and others; however, these groups have not yet been comprehensively assessed at the same level of granularity.

For people- and society-related risks, the Group has not quantified financial impacts this year because data and calculation rules necessary for monetisation that would allow Group-wide comparison have not yet been established. Instead, it qualitatively maps financial-impact pathways taking into account factors such as the severity and likelihood of impacts, difficulty of remediation, exposure in terms of affected businesses, business partners, and people, the status of existing measures, and the time horizon over which impacts may emerge.

Supplier human rights due diligence and business partner compliance surveys are also positioned not as processes that determine whether human-rights violations have occurred at individual companies, but as screening for prioritising additional confirmation and improvement.

For climate and nature, the Group will expand the scope of data collection across the upstream value chain and downstream value chain and by business, region, and facility, thereby improving assessment accuracy. For people and society, it will gradually expand the stakeholder scope and develop data collection, assessment methods, metrics, and management processes while taking into account future developments in TISFD Beta.



5.2 Process for Identifying and Assessing Climate- and Nature-related Dependencies, Impacts, Risks and Opportunities

Analytical Scope and Value Chain Coverage

In identifying and assessing climate- and nature-related dependencies, impacts, risks and opportunities, the Kanadevia Group covers the value chain including its business activities, direct operations, procurement, construction and installation, operation and maintenance, use of products and services by customers, and disposal and replacement. Because the Group's businesses are closely connected with reducing environmental impacts for customers and local communities, the analysis considers not only the Group's own operations but the full business process, including delivered facilities and contracted operating facilities.

This fiscal year, the Group assessed climate- and nature-related dependencies, impacts, risks and opportunities with reference to existing business information, environmental data, operating data, previous TCFD/TNFD analyses, and external tools such as ENCORE. Because the scope and accuracy of available data are subject to limitations, the assessment results are intended to be reviewed as data coverage expands and analytical methods are enhanced.

Assessment Using the LEAP Approach and ENCORE

For climate- and nature-related dependencies, impacts, risks and opportunities, the Kanadevia Group refers to the LEAP Approach recommended by TNFD to identify points of contact between business activities and natural capital and organise the relationship between dependencies and impacts. It also refers to ENCORE analysis and its underlying evidence, as recommended by TNFD, to review dependencies and impacts on natural capital by business process. ENCORE analysis is used to assess impacts on natural capital and dependencies on ecosystem services on a five-point scale.

However, ENCORE assessments are based on average sector information and do not fully reflect individual facilities, projects, regions, or customer conditions. The Group therefore adjusts assessment results where necessary based on actual business conditions, environmental assessments, operating data, legal and permit conditions, and the status of environmental management, so that analysis more closely reflects actual circumstances.

Assessment of Dependencies and Impacts on Natural Capital

For dependencies on natural capital, the Kanadevia Group examines the extent to which business activities depend on ecosystem services such as water supply, water-flow regulation, climate regulation, waste purification, and disaster mitigation. For impacts on natural capital, the Group assesses potential effects of business activities on natural capital and ecosystems, including GHG emissions, direct water abstraction, land use change, non-GHG emissions, water and soil pollution, waste discharge, noise, and light pollution.

The assessment begins with general evaluations from external tools while also taking into account the actual conditions and management status of each business. For example, where management measures such as Environmental Assessments, RFP requirements, laws and permit conditions, voluntary standards, monitoring, and emergency shutdowns exist, the levels of risk and impact are reviewed in light of those measures.

Identification of Priority Locations and Priority Management Areas

Nature-related risks and impacts vary significantly depending on the locations in which business activities take place. Accordingly, the Kanadevia Group focuses on locations such as operating sites, construction sites, sourcing locations, customer facilities and facilities operated under long-term service agreements, and identifies as priority areas for management those locations where dependencies on, or impacts on, natural capital are likely to be significant.

In particular, for water-stressed regions, areas important for biodiversity, regions with high disaster risk, facilities where environmental-impact management requires particular attention, and businesses with significant impacts on local communities, the Group will expand data collection and connect it to more specific future analysis.

Water-related businesses are not presented at this stage as a completed Water Business strategy. Rather, they are treated as an area in which the relationship with natural capital, climate change adaptation, and regional resilience will be further enhanced from the perspectives of water use through the Water Business and flood control through the hydraulic gate business.

Assessment Limitations and Future Data Expansion

This fiscal year's assessment of climate- and nature-related dependencies, impacts, risks and opportunities is based on currently available data and external tools. Data for individual facilities, projects, suppliers, customer facilities, and regions are not available at the same level of granularity in all cases. Accordingly, the assessment results are intended to identify materiality and support prioritisation at the current stage and should be reviewed as data coverage expands, assessment methods improve, and actual performance data accumulate.

The Kanadevia Group will expand the scope of data collection on dependencies and impacts across the upstream and downstream value chains, as well as across businesses and regions, thereby improving the accuracy of its assessments. For nature-related risks, it will also strengthen connections with environmental management, sustainable procurement, business decisions, ERM, and data governance and link them to monitoring, remediation, and improvement of material risks.



5.3 Management within Business Processes

The Kanadevia Group's businesses contribute to reducing environmental impacts for customers and local communities through multiple processes including the design, procurement, fabrication, construction, operation, maintenance, and renewal of equipment and facilities. Climate- and nature-related risks and impacts therefore need to be understood not only in the Group's own factories and business sites, but also in connection with delivery and contracted operation of facilities, related bid decisions, and customer use.

From the project planning stage, the Group reviews environmental impacts, disaster risks, operating risks, quality and safety risks, and related matters in light of laws and permit conditions, customer requirements, design conditions, construction conditions, operating conditions, and other factors. In facilities related to waste treatment, water treatment, energy, disaster prevention, and other areas, stable operation is linked to local living environments, public health, safety and security, and service continuity. These risks are therefore managed from both the perspective of reducing environmental impacts and ensuring stable operation.

Environmental Management at Each Company and Site

For environmental impacts at the Kanadevia Group's own works and business sites, each company and site sets environmental targets, manages performance, conducts inspections, and carries out improvement activities based on ISO 14001 or a comparable environmental management system. Major items covered include energy use, GHG emissions, water use, waste, chemicals, wastewater, air emissions, noise, and vibration.

These management activities are not implemented uniformly across the Group. However, PDCA cycles are maintained at individual companies and sites, including manufacturing subsidiaries, based on certification systems and their respective management frameworks, and are tailored to their specific circumstances. The Sustainability Promotion Department reviews environmental data and environmental-conservation activities at each company and site and advances information consolidation, issue identification, and improvement support towards enhancing environmental management across the Group.

Future Enhancement

For risk management in direct operations and individual projects, the Kanadevia Group needs to understand climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities in a more integrated manner while leveraging existing environmental management, quality and safety management, project management, and crisis-management systems.

Environmental accidents and incidents are first handled by each site or company in accordance with laws, permit conditions, customer requirements, its environmental management system, and internal rules. For material environmental events, information is subsequently shared and consolidated so that the Sustainability Promotion Department can understand the situation. The Group will continue to enhance the structure for more consistent Group-wide information sharing and improvement by clarifying reportable matters, reporting routes, escalation criteria, and methods for following up on recurrence-prevention measures.

5.4 Initial Management of Environmental and Human-rights Risks in the Supply Chain

Upstream Management through Sustainable Procurement

The Kanadevia Group's businesses depend on relationships with a diverse range of suppliers, contractors, and subcontractors. Environmental impacts, human rights and labour, safety, quality, and fair transactions in the upstream supply chain are important management matters that affect business continuity, the reliability of products and services, customer value, and stakeholder trust. In addition, the Group's products, facilities, and services are connected to environmental and people- and society-related dependencies, impacts, risks and opportunities through downstream processes including customer use, operation and maintenance, renewal, and disposal. Accordingly, this report currently focuses on upstream initiatives, while the Group will deepen its understanding and management of downstream conditions over time as well.

The Pillar of Success "sustainable procurement" provides an interface for identifying such upstream risks and opportunities. Environmentally, relevant matters include GHG emissions, resource use, chemicals, waste, and other impacts associated with procured items and outsourced processes. For people and society, relevant matters include the human rights and occupational safety of supply-chain workers, fair transactions, and trusted relationships with business partners. However, upstream environmental and human-rights risks, including those of suppliers, are not yet comprehensively understood at the same level of granularity. Supplier-engaged data collection and reduction management relating to carbon are also positioned as areas for future enhancement.

Review of Human Rights Due Diligence and Business Practices

Human-rights and labour issues in the supply chain are not standalone compliance issues; they are strategic matters affecting procurement stability, quality, delivery schedules, trusted relationships with business partners, and business continuity. Through human rights due diligence based on its Human Rights Policy and business partner surveys, the Kanadevia Group is advancing its understanding of people- and society-related dependencies, impacts, risks and opportunities in the supply chain.

As upstream initiatives concerning people and society, the Group is advancing supplier human rights due diligence and business partner compliance surveys. Supplier human rights due diligence is intended to identify potential human-rights and labour risks at suppliers. Business partner compliance surveys, meanwhile, review the impacts that the Group's ordering, contracts, specification changes, delivery schedules, quality requirements, communications, and other practices may have on business partners and the people working for them.

In 2026, the supplier human rights due diligence process combined existing GCNJ SAQ responses, country-level risk indicators, human rights issues commonly associated with specific industries, and disclosures by industry peers to determine priorities for further review and engagement. This assessment does not indicate the occurrence of human rights violations at any individual company; rather, it serves as a screening process to prioritise dialogue and further verification.

In addition, the Supplier Compliance Survey reviewed the Group's procurement and contracting practices from the perspective of suppliers. The survey covered areas such as written ordering and contracting procedures, order information, pricing, delivery schedules and specifications, workload, quality requirements, payment and inspection processes, compliance, consultation channels, trust and overall satisfaction. While the results indicated an overall satisfactory level of performance, they also identified matters requiring further review and improvement, particularly in relation to workload and unilateral changes to delivery schedules.

In this way, supplier human rights due diligence is designed to identify potential risks on the supplier side, while the Supplier Compliance Survey is intended to assess the impacts that the Group's business

practices may have on suppliers and the people who work for them. By combining these two approaches, the Group is able to develop a more comprehensive understanding of supply chain risks, viewing them not from a single perspective but as the result of interrelated relationships across the supply chain.

These analyses confirmed that human-rights and labour issues in the supply chain are not issues only for Procurement or Compliance, but important management matters affecting business stability, quality, delivery schedules, costs, and trusted relationships with business partners. In particular, ordering terms, specification changes, delivery schedules, prices and payment terms, audit requirements, and safety requirements may affect the working conditions of people employed by business partners while also affecting the Kanadevia Group's own execution capability. Procurement stability and consideration of human rights and labour therefore need to be managed together.

These initiatives do not comprehensively assess human-rights risks across the entire supply chain and do not determine that human-rights violations have occurred at individual companies. At present, they are positioned as initial screening for identifying parties requiring additional confirmation, dialogue, improvement support, or reassessment. Detailed assessment methods, scope, and survey results are provided in **Appendix D**.

Future Enhancement

The Kanadevia Group will gradually expand information on environmental issues, human rights, labour, safety, quality, and fair transactions in the upstream value chain. Specifically, it will enhance identification of risks and the effectiveness of improvement through dialogue with suppliers, additional SAQs, interviews, requests for improvement, reassessment, and other measures.

Sustainable procurement is both part of people- and society-related dependencies, impacts, risks and opportunities and an area connected with climate- and nature-related issues. In addition to supplier human rights due diligence, the Group will develop data collection and management methods for GHG emissions, resource use, and environmental impacts in the upstream value chain, including suppliers.

The Group also maintains continuing relationships with customers and users, communities where facilities are located, contractors involved in operations, and other parties through the operation, maintenance, use, renewal, and disposal of facilities and equipment after delivery. In the downstream value chain, environmental impacts during customer use of products and services, safe and stable facility operation, service continuity, user safety, impacts on local communities, and the uneven distribution of benefits and burdens are important management issues for the future. At present, however, downstream environmental, human-rights, and social impacts are not understood at the same level of granularity across businesses, regions, and facilities. The Group will develop over time methods for understanding downstream risks and impacts by using existing business information, operation and maintenance information, dialogue with customers and communities, grievance and consultation information, and other sources.

Through these initiatives, the Group will increasingly integrate environmental and human-rights risks in the upstream supply chain, but also downstream risks and impacts involving customers and users, local communities, and facility operations, to sustainable procurement, ERM, internal control, business decisions, and data governance. Supplier human rights due diligence, however, represents only one part of the overall picture of people- and society-related dependencies, impacts, risks and opportunities. The **next section** describes the preliminary mapping of people- and society-related dependencies, impacts, risks and opportunities encompassing own workforce, local communities, customers and users, and other stakeholders.

Executive Interview

Building Group-wide and Global Procurement on a Foundation of Trust



Yoshihiro Nakagawa

Executive Officer
General Manager,
Procurement
Headquarters

From “Buying Things” to Procurement That Creates Business and Social Value

More than 30 years ago, when I began working in procurement, the role of procurement was largely centred on obtaining what was needed at the lowest possible cost. The availability of the necessary materials and equipment was taken for granted, and procurement performance was assessed primarily in terms of cost reduction.

Today, however, the environment surrounding procurement has changed significantly. Sustainability-related issues, including environmental considerations, human rights and compliance, must now be addressed throughout the supply chain. Failing to take these factors into account has itself become a significant business risk.

The nature of Kanadevia Group’s businesses differs from that of industries that repeatedly purchase standardised products from the same suppliers. In our EPC-centred businesses, specifications vary from project to project, as do the products and suppliers involved. Once a project has been awarded, we must meet the technical requirements while achieving an appropriate balance between quality, cost and delivery within a limited time frame.

Against this backdrop, the role of procurement is evolving. Our responsibility is not only to support the reliable delivery of projects, but also to create value that meets society’s expectations. I believe that fulfilling both roles is what procurement is called upon to do today.

Sustainable Procurement Requires Shared Objectives across Functions

Sustainable procurement cannot be achieved by the procurement function alone. The challenges involved are broader and more complex. Procurement’s fundamental role is to source products and services that meet defined requirements. To embed sustainability fully in our business, all functions, including sales, engineering, design, manufacturing and procurement, must share common objectives and a common direction across organisational boundaries.

When environmental, human rights and wider social considerations are incorporated into project specifications from the design stage, procurement can identify and engage suppliers capable of meeting those expectations. By contrast, if sustainability concerns are recognised only at the procurement stage, the available options may be constrained by project schedules, cost considerations and technical requirements.

A project begins with sales, moves through engineering and procurement, and is ultimately brought to life through manufacturing and construction before being used by customers for many years. Beyond our direct suppliers lies an extensive network of tier-two and tier-three suppliers. To create lasting social value, all parties across this value chain need to move in the same direction and operate according to shared principles.

From Managing Suppliers to Partners in Solving Challenges and Growing Together

Supply chain challenges cannot be solved by one company alone. I therefore believe that suppliers should be regarded not simply as parties to be managed, but as partners with whom we address shared challenges.

The first step is to share openly the challenges we face and explain why action is needed. From there, it is important to have frank discussions about what each company can realistically achieve and where support may be required.

We are strengthening supplier assessments and due diligence to gain a more accurate understanding of potential risks across the supply chain. However, assessments and scores are only the starting point. We share the results with suppliers, identify strengths and opportunities for improvement, and discuss how we can work together to address the challenges. It is through this process that value begins to emerge. Continuous dialogue deepens mutual understanding, helps bridge differences in perception and creates opportunities for collaborative problem-solving. I believe that this kind of engagement is the foundation of sustainable procurement.

There may, of course, be cases where a supplier's business practices or risk profile do not align with our expectations. At the same time, sustainability cannot be achieved simply by making requests of suppliers. We also have a responsibility to support the growth of our partners by providing business opportunities, access to markets, information and knowledge. Our aim is to build relationships in which suppliers feel that working with Kanadevia has contributed to their own development and long-term success.

Bringing Together Procurement Capabilities across the Group and Globally

Kanadevia Group now operates globally. However, procurement activities have often been managed separately by individual companies and business units.

Differences in manufacturing processes, purchasing practices and supplier relationships are natural, and not everything needs to be standardised. What can and should be shared across the Group are the fundamental principles that guide our procurement activities and the values we place on our relationships with suppliers.

To this end, procurement leaders at operations and Group companies around the world have begun working together to define a common vision and strategic direction. Our aim is to bring together and make use of the collective strengths of Kanadevia Group. Through the **development of the One Kanadevia Procurement Platform**, we will create a mechanism for sharing and using valuable supplier networks, technologies and market intelligence identified in one region across the Group.

Looking towards 2030, we aim to establish a globally integrated procurement function capable of supporting sustainable business growth across the Group. Under the current roadmap, we plan to complete the development of the necessary mechanisms and begin pilot operations by 2029, and to demonstrate measurable outcomes by 2030.

This does not mean sourcing everything globally. Wherever practicable, we will continue to promote local procurement. At the same time, where specialised technologies, capabilities or strategic advantages cannot be secured locally, each business should be able to draw on the most appropriate technologies and capabilities through global supply chains. Maintaining this flexibility will strengthen both business resilience and long-term competitiveness.

Trust Is the Foundation of Procurement

After many years in procurement, if I am asked what matters most, my answer is always the same: trust.

To me, trust has two dimensions. The first is credibility: being trusted in both what we say and what we intend, and consistently creating value through our actions. The second is dependability. Unforeseen challenges can arise in any project. Materials may become unavailable, stakeholder coordination may become difficult, or entirely new solutions may be required. At such times, I want people to feel confident that, by consulting procurement, they can find a way forward.

Earning that trust requires continuous learning. We must continually deepen our understanding of markets, technologies and global developments so that we can offer those involved new perspectives, options and solutions.

True trust exists only when we are both credible and dependable.

My aspiration is that both internal stakeholders and suppliers will say, "This is what we expect from Kanadevia Procurement." Beyond that, I hope our procurement function will become respected throughout the global plant engineering industry. By building trust one relationship at a time, we will work alongside partners across the supply chain to support both the sustainable growth of Kanadevia Group and the creation of lasting social value.



Column: Partnership

“Sustainable Supplier Partnerships” being prepared by Kanadevia Inova



In August 2026, Kanadevia Inova published its own sustainability report. The following text is reproduced from that report and describes the framework for partnerships with business partners that Kanadevia Inova is developing.

Kanadevia Inova aims to be a trusted partner by building long-term, value-driven relationships across the value chain, based on shared environmental, social, and governance principles. This means working with suppliers, contractors, and customers to foster responsible, ethical, and sustainable business practices worldwide.
Kanadevia Inova’s approach reflects its broader ambition to contribute to a sustainable, circular, low-carbon future while strengthening local communities and ensuring resilience across the supply chain.

Approach to the Value Chain

(1) Embedding ESG into Supplier Relationships

Kanadevia Inova requires its partners to meet the same high standards that apply within its own organisation. These expectations are formalised through its Supplier Code of Conduct, which all suppliers must adhere to.
This includes commitments to:

- Respect human rights and prohibit forced or child labour
- Ensure fair wages and safe working conditions
- Comply with environmental standards and minimize resource consumption
- Conduct business ethically, including compliance with anti-corruption, trade and sanctions law.

By embedding ESG requirements into supplier selection criteria, contractual relationships, and procurement processes, Kanadevia Inova aims to systematically strengthen sustainability performance across its supply chain. Kanadevia Inova’s ambition is to move beyond compliance towards long-term partnerships that create sustainable value for all parties involved.

(2) Strengthening local and responsible sourcing

Wherever feasible, Kanadevia Inova prioritises:

- Local suppliers, to support regional economies and reduce transport-related emissions
- Long-term supplier relationships to increase supply security and stability
- Repeat partnerships based on proven ESG performance

This contributes to strengthening local communities while enhancing resilience and efficiency across our value chain.

(3) Ensuring Fair and Responsible Business Conduct

Kanadevia Inova recognises that trust is built not only through expectations but also through its own conduct. Therefore, Kanadevia Inova:

- commits to paying suppliers within agreed contractual terms, recognising the importance of timely payments, particularly for SMEs.
- maintains transparent and ethical procurement practices
- promotes accountability through internal controls and governance structures

(4) Looking Ahead

As part of its ESG roadmap, Kanadevia Inova will continue to scale its efforts by:

- Expanding ESG data collection across the value chain
- Developing ESG training programmes for procurement teams and suppliers
- Increasing the share of suppliers providing reliable ESG data (e.g. emissions, social metrics)
- Increasing the importance of ESG criteria in supplier selection and evaluation processes
- Collaborating with its partners to increase the use of recycled and sustainable materials

By bringing partners with it on its ESG journey, Kanadevia Inova aims to create a resilient, responsible and future-ready value chain, reinforcing its role as a trusted partner to its stakeholders.

5.5 Preliminary Mapping of People- and Society-related Dependencies, Impacts, Risks and Opportunitie

Scope of People- and Society-related Dependencies, Impacts, Risks and Opportunities

People- and society-related dependencies, impacts, risks and opportunities are not limited to supplier human rights due diligence. The Kanadevia Group's business activities involve a wide range of people, including own workforce, value chain workers, local communities, customers and users, and people living around facilities. These people are affected by the Group's business activities while at the same time forming part of the foundation on which the Group depends to implement technologies and services in society and continue its businesses.

This fiscal year, with reference to TISFD Beta and using currently available information, the Group conducted a preliminary mapping of people- and society-related dependencies, impacts, risks and opportunities. However, not all stakeholders have been assessed across the same scope and at the same level of granularity. This section therefore distinguishes between major issues currently identifiable and matters for future enhancement.

Table 5-1: Preliminary Mapping of People- and Society-related Dependencies, Impacts, Risks and Opportunities

Target	Dependencies	Impacts	Risks	Opportunities
Own workforce	Skills, safety culture, health, dependence on engineers and skilled workers	Occupational accidents, heat stress, excessive workloads, skills development, employment, opportunity disparities	Construction stoppages, quality decline, schedule delays, talent shortages, loss of skills, constraints on orders	Improved safety, productivity, and retention, reskilling and stronger competitiveness
Value chain workers	Supplier quality, skills and supply capacity	Workloads caused by delivery-date, price or specification changes; human-rights and labour impacts	Supply disruption, cost increases, schedule delays	Resilient supply network and co-creation
Affected local communities	Local trust and social acceptance	Benefits such as public health and employment; burdens such as noise, traffic, land and water use	Permit delays, additional measures, business interruption	Regional co-creation and long-term operations
Customers and users	Customer trust and confidence in facilities and services	Positive and negative impacts on safety and service continuity	Accidents, contract renewal issues, compensation	Long-term O&M and service-based business

Major Issues Currently Identified

For the Kanadevia Group's own workforce, important issues include occupational health and safety, skills succession, securing human resources, DE&I, engagement, psychological safety, and compliance awareness. These matters affect not only well-being of own workforce but also quality, delivery schedules, business continuity, and customer trust.

For the supply chain, key issues include human rights and labour, safety, fair transactions, and trusted relationships with business partners. Supplier human rights due diligence, however, is an initial initiative for understanding only part of people- and society-related dependencies, impacts, risks and opportunities and does not represent a comprehensive analysis of people and society based on TISFD Beta. As described in the preceding section, it is currently positioned as screening for prioritising additional confirmation and improvement.

For local communities, customers, and users, issues include facility siting, living environments, public health, disaster prevention, service continuity, customer and user safety, and uneven distribution of benefits and burdens. These are areas where further assessment is required to understand sustainability outcomes for customers, users, and local communities through the Group's businesses. At present, data and assessment methods concerning regions, customers, and users are not sufficiently developed, and the Group will develop methods over time for understanding these issues by using existing dialogue, business information, information from grievance and consultation channels, and other sources.

Qualitative Mapping of Financial-impact Pathways

For people- and society-related risks, the Kanadevia Group has not quantified financial impacts at this stage because data and calculation rules necessary for monetisation that would allow Group-wide comparison have not yet been established. This fiscal year, the Group qualitatively maps pathways through which shortages of human resources, interruptions in skills succession, serious accidents, human-rights and labour issues, issues in business practices, community acceptance, customer and user safety, trust, compliance, and other matters may affect financial performance. Potential effects include higher costs, fewer sales or contract opportunities, interruptions to operations or projects, and changes in financing conditions.

This qualitative assessment does not quantify people- and society-related risks as monetary financial impacts; rather, it is a starting point for identifying areas where data collection and management processes should be enhanced over time. The Group will gradually expand the stakeholder scope, enhance data collection, develop assessment methods and metrics, and connect people- and society-related dependencies, impacts, risks and opportunities with ERM, internal control, business decisions, procurement management, human capital management, quality and safety management, and dialogue with local communities and customers.

5.6 Integration with ERM, Internal Control, and Business Decision-making

Connection to ERM

The Kanadevia Group defines risk as the possibility that an event may occur and affect achievement of strategy or business objectives. Among these, matters that could have a material impact on the Group are treated as material risks, and matters that could have a material impact on the Corporate Philosophy or Group strategy are managed as top risks.

Climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities are not merely sustainability-specific issues; over the medium to long term, they may affect business objectives, business continuity, corporate value, and stakeholder trust. Accordingly, for identified and assessed matters with high materiality, the Group will review their relationship with existing risk categories and top risks and gradually connect them to ERM assessment, response, and management.

In particular, risks relating to corporate social responsibility—such as quality, occupational health and safety, legal violations, and human rights—can have major impacts on business continuity and stakeholder trust. In managing climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities, the Group therefore also reviews their relationship with such risks and avoids separating sustainability issues from enterprise-wide risk management.

Reflection in Internal Control and Business Decision-making

Within the Kanadevia Group, business divisions and consolidated subsidiaries are responsible for managing risks inherent in their own operations and executing response measures. Specialised functions supporting risk management and internal control develop the risk management framework from a Group-wide perspective, understand the status of initiatives in each department, and provide advice and support as necessary. The internal audit function independently assesses the effectiveness of governance, risk management, and internal control.

Based on this approach, climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities are also identified and addressed primarily by business divisions, Group companies, and responsible functions within their business activities and work processes. The Sustainability Promotion Department, together with the functions responsible for risk management and internal control, Legal and Compliance, Procurement, Human Resources, Quality, Health and Safety, and other related functions, consolidates information, assesses issues, provides advice, and supports improvement based on their respective areas of expertise.

Issues identified through the assessment of dependencies, impacts, risks and opportunities are used as input for bid/no-bid decisions, investment decisions, procurement management, quality and safety management, human capital management, environmental management, supply chain management, and other processes. At present, not all such matters are incorporated into these processes at the same level of granularity, but the Group will increasingly connect material issues to existing management processes. In particular, people- and society-related matters are currently at a preliminary mapping stage; therefore, rather than quantifying monetary financial impacts, the Group qualitatively identifies impact pathways and management issues and uses them to enhance data and management processes over time.

Reflection in Material Risks and Management Issues

For climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities that may affect business continuity, corporate value, and stakeholder trust, the Kanadevia Group reviews their relationship with existing management processes including ERM, internal control, business planning, procurement, quality and safety, and human capital management.

For climate- and nature-related risks, material management issues are identified taking into account physical risks, transition risks, dependencies and impacts on natural capital, environmental impacts, resource use, and impacts on customers and local communities. For people- and society-related risks, safety, human rights, skills, trust, supply chain, local communities, and impacts on customers and users are framed as matters relating to business continuity and social trust.

These management issues are not currently incorporated into management decisions and business processes at the same level of granularity. The Kanadevia Group will continue to strengthen connections to ERM and business decision-making by developing data collection, assessment methods, metrics, and reporting processes.



5.7 Monitoring, Remediation, Improvement, and Remedy

Information Used for Monitoring

To manage climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities appropriately, it is necessary to continuously review identified and assessed risks and impacts and understand changes over time. Monitoring uses information currently available, including environmental data, operating information, supplier surveys, human rights due diligence, business partner surveys, occupational health and safety information, our people's voices, dialogue with local communities and customers, and reports and inquiries received through grievance and whistleblowing channels. However, these data are not all obtained or assessed across the same scope and at the same level of granularity. In particular, because the stakeholder scope and assessment methodologies for people- and society-related matters are still being developed, the Kanadevia Group identifies key management issues based on currently available information and uses the results to support future enhancement.

Process for Remediation and Improvement

Issues identified through monitoring are reviewed by the relevant functions, which, where necessary, request improvements, implement corrective actions, conduct reassessments, establish measures to prevent recurrence, and review rules and operational practices. For environmental impacts, quality, safety, legal compliance, human rights, business practices, and impacts on local communities and customers, the Kanadevia Group uses existing management processes to identify causes and enhance the effectiveness of improvements.

For supply-chain issues, matters identified through supplier human rights due diligence and business partner surveys lead to additional confirmation, dialogue, improvement support, reassessment, and other actions. These initiatives do not determine whether human-rights violations have occurred at individual companies; rather, they are positioned as an initial management process for identifying where risks may exist and prioritising additional confirmation and improvement.

Use of Consultation and Whistleblowing Information

Some people- and society-related risks and negative impacts cannot be fully identified from quantitative data alone. It is therefore important to identify risks and improvement issues that may be difficult to surface through our people's voices, consultation and whistleblowing systems, dialogue with business partners, dialogue with local communities and customers, and other channels.

In addition to consultation and whistleblowing systems for own workforce, the Kanadevia Group seeks to identify issues relating to business practices, human rights, labour, safety, and trust through communication with business partners. Insights obtained through reports received through grievance and whistleblowing channels, together with stakeholder dialogue, will be used not only for individual responses but also to improve organisational culture, business practices, supply-chain management, and responses to local communities and customers.

5.8 Direction for Future Enhancement

Enhancing Data-collection Scope and Assessment Accuracy

For climate- and nature-related dependencies, impacts, risks and opportunities, the Kanadevia Group will expand the scope of data collection across the upstream and downstream value chains and by business, region, and facility, thereby improving assessment accuracy. In particular, it will gradually expand available data on dependencies and impacts on natural capital, environmental impacts, resource use, water risks, and impacts at customer facilities and contracted operating facilities.

The Group will also connect the data collected with environmental management, sustainable procurement, ERM, business decisions, and data governance and use them to identify material risks, conduct monitoring, and support improvement activities. Because information on individual facilities, projects, suppliers, customer facilities, and regions is not currently available at the same level of granularity, assessment results will be reviewed as data are further developed.

Progressive Enhancement of People- and Society-related Dependencies, Impacts, Risks and Opportunities

For people- and society-related dependencies, impacts, risks and opportunities, the Kanadevia Group will gradually expand the stakeholder scope and develop data collection, assessment methods, and management processes while taking into account future developments in TISFD. At present, own workforce, value chain workers, local communities, customers and users, and other groups are not assessed across the same scope and at the same level of granularity.

The Group will enhance its understanding of people- and society-related risks and impacts using multiple sources. These include human rights due diligence, business partner surveys, occupational health and safety information, our people's voices, dialogue with local communities and customers, and reports and inquiries received through grievance and whistleblowing channels. In particular, because people- and society-related risks have not yet reached the stage of financial-impact quantification, the Group will first map impact pathways, affected stakeholders, existing management measures, and information requiring additional collection, thereby improving management effectiveness.

Strengthening Connections to ERM, Business Decisions, and Information Use

The Kanadevia Group will connect climate-, nature-, and people- and society-related dependencies, impacts, risks and opportunities more clearly with ERM, internal control, bid/no-bid and investment decisions, procurement management, human capital management, quality and safety management, environmental management, and supply chain management. At present, however, not all such matters are incorporated into these processes at the same level of granularity.

The Group will therefore begin with more material issues, confirm their relationship with existing management processes, and expand the range in which they are used as input for consideration. For information used in risk management, the Group will also build on existing environmental data and health and safety information while gradually developing the scope of information collected and methods of use for human rights, the supply chain, local communities, customers and users.

Through these efforts, the Group will enhance its management processes beyond identification and assessment to include management, monitoring, remediation and improvement, and connection to management decision-making.

6

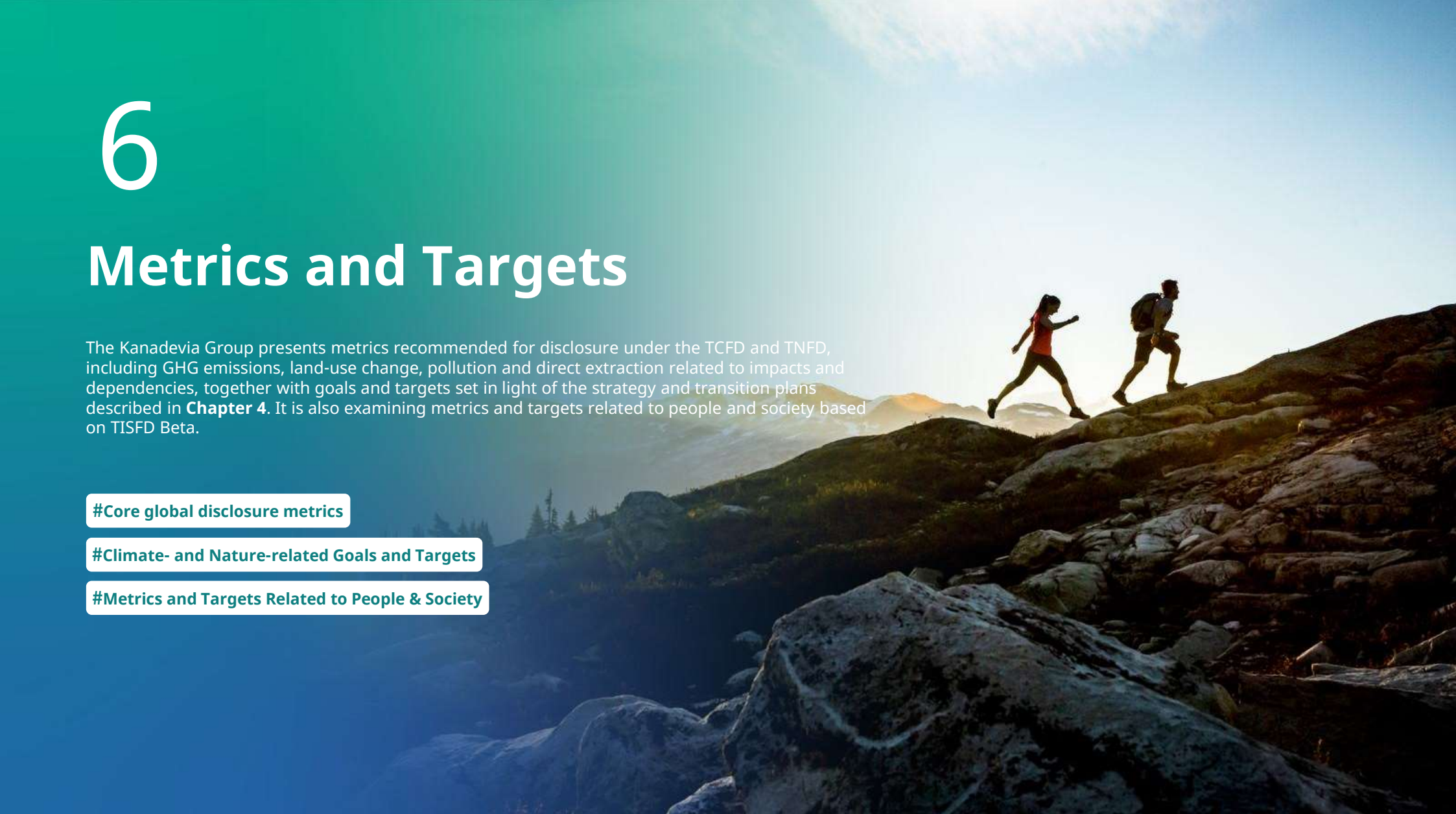
Metrics and Targets

The Kanadevia Group presents metrics recommended for disclosure under the TCFD and TNFD, including GHG emissions, land-use change, pollution and direct extraction related to impacts and dependencies, together with goals and targets set in light of the strategy and transition plans described in **Chapter 4**. It is also examining metrics and targets related to people and society based on TISFD Beta.

#Core global disclosure metrics

#Climate- and Nature-related Goals and Targets

#Metrics and Targets Related to People & Society



6.1 Overview of Metrics and Targets

This chapter presents metrics and targets relating to Climate, Nature, and People & Society in order to understand progress towards realising the Kanadevia Group's Sustainable Vision. In climate- and nature-related disclosure in particular, it presents a metrics system that starts from the core metrics emphasised in international disclosure frameworks and reflects the Group's business activities, value chain, and relationships with regions.

Metrics and targets do more than present individual environmental and social data; they provide a foundation for confirming progress on the dependencies, impacts, risks and opportunities, scenario analysis, strategy, and transition plan organised in **Chapter 4**. Accordingly, this chapter first presents metrics and targets relating to climate and nature and then presents metrics and targets relating to people and society.

Metrics relating to people and society are presented with reference to TISFD Beta and on the basis of existing initiatives and currently available information. Because they cannot yet be quantified at the same level of maturity as climate- and nature-related metrics, the Group clearly presents the current level of progress together with the direction for future enhancement.

The Group has established the Seven Pillars of Success as important issues for realising the Sustainable Vision, and the relationship between the metrics and targets presented in this chapter and the Pillars of Success is reviewed as necessary. This relationship is not intended to compare achievement levels among the pillars, but to confirm how each metric is connected to the Group's management priorities.

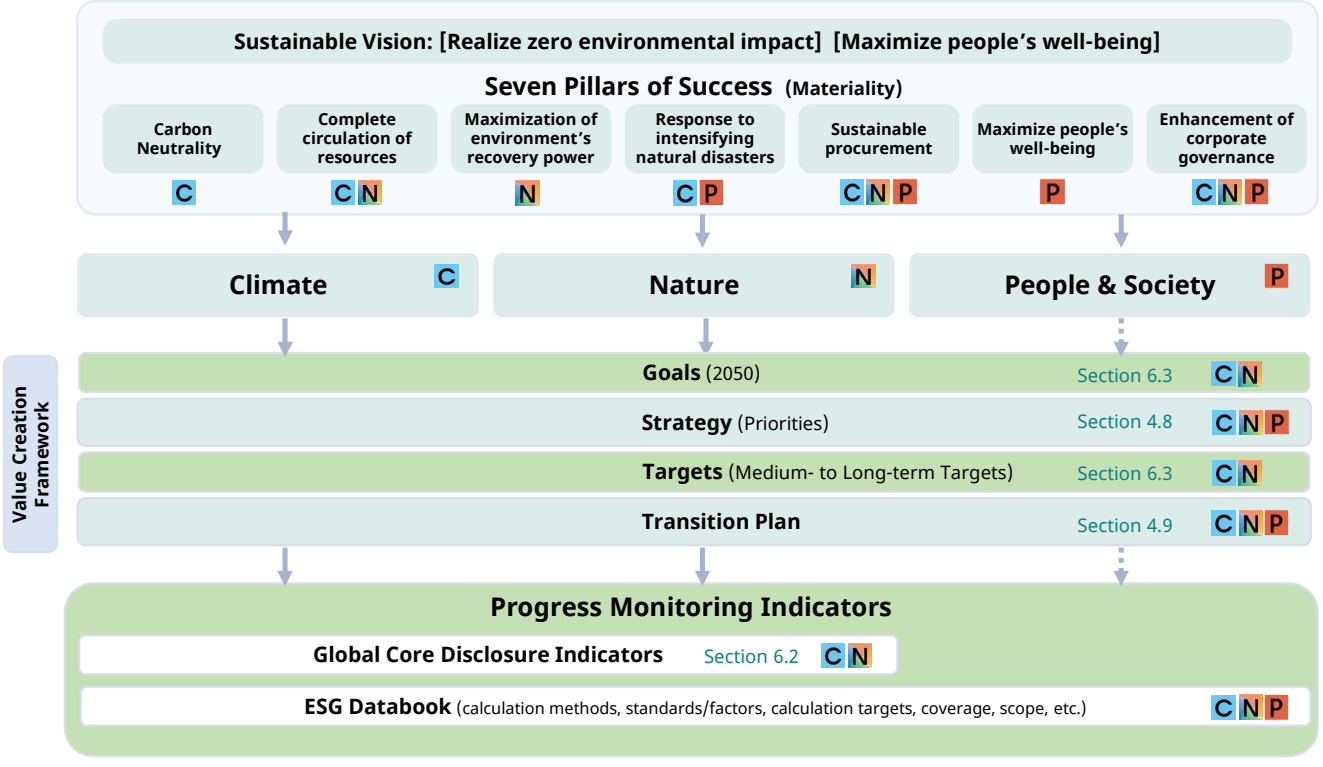


Figure 6-1: Translating the Sustainable Vision into Targets and Indicators

6.2 Core Global Disclosure Metrics

The Kanadevia Group's metrics related to GHG emissions, land-use change, pollution, direct resource extraction, and other indicators concerning impacts and dependencies recommended for disclosure under the TCFD and TNFD frameworks are presented in **Table 6-1 and 6-2**. With regard to the "FY 2025 Businesses" column under "Kanadevia Results" in **Table 6-1**, the figures represent the aggregated results for the scope of the Group's business operations, including special purpose companies (SPCs).

Table 6-1: Core global disclosure metrics

TNFD core global disclosure indicators and metrics				Kanadevia Results*	
No.	Indicator	Metric	Unit	FY 2024	FY 2025
-	**Climate change**				
	GHG emissions	Scope 1 (direct emissions from fuel use and manufacturing processes in own operations)	t-CO_2e	211,100	202,200
		Scope 2 (indirect emissions from purchased electricity and heat)		20,900	22,900
		Scope 3 Category 1 (Purchased goods and services)		1,457,100	1,310,300
		Scope 3 Category 2 (Capital goods)		38,700	95,200
		Scope 3 Category 3 (Fuel- and energy-related activities)		56,900	58,000
		Scope 3 Category 4 (Upstream transportation and distribution)		22,800	18,400
		Scope 3 Category 5 (Waste generated in operations)		900	1,000
		Scope 3 Category 6 (Business travel)		1,700	1,700
		Scope 3 Category 7 (Employee commuting)		3,900	3,700
		Scope 3 Category 8 (Upstream leased assets)		Not applicable	Not applicable
		Scope 3 Category 9 (Downstream transportation and distribution)		2,800	1,000
		Scope 3 Category 10 (Processing of sold products)		Not applicable	Not applicable
		Scope 3 Category 11 (Use of sold products)		21,073,900	5,879,800
		Scope 3 Category 12 (End-of-life treatment of sold products)		4,200	6,900
		Scope 3 Category 13 (Downstream leased assets)		600	5,900
		Scope 3 Category 14 (Franchises)		Not applicable	Not applicable
		Scope 3 Category 15 (Investments)		8,100	6,200

* See ESG Databook 2026. Scope 3 Category 11 reflects the revised calculation method in **ESG Databook 1-3-5**.

* In the table below, see https://www.kanadevia.com/english/ir/data/pdf/esg2026_E.pdf. for “Kanadevia Performance.” The results of the LCA analysis for “Procurement” are presented in Appendix D.

TNFD core global disclosure indicators and metrics				Kanadevia Results	
No.	**Indicator**	**Metric**	**Unit**	**FY 2025 Businesses**	**Remarks**
C1	**Land/freshwater/ocean-use change**				
C1.0	**Total spatial footprint**	Total spatial footprint (sum of):	Thousand m²	5,865	-
		-Total surface area controlled/managed by the organisation, where the organisation has control		5,865	Scope covers land owned by Kanadevia Group and plants where Kanadevia Group conducts O&M (operations and maintenance).
		-Total disturbed area		414	Three facilities completed in FY 2025. Includes temporary construction yards used only during construction.
		-Total rehabilitated/restored area		-	-
C1.1	**Extent of land/freshwater/ocean-use change**	Extent of land/freshwater/ocean ecosystem use change	Thousand m²	-	-
		Extent of land/freshwater/ocean ecosystems conserved or restored		-	-
		Extent of land/freshwater/ocean ecosystems sustainably managed		-	-
C2	**Pollution / pollution removal**				
C2.0	**Total pollutants released to soil by type**	Pollutants released to soil	Thousand kg	No pollution incidents identified.	-
C2.1	**Wastewater discharged**	Volume of wastewater discharged (total, freshwater, other)	Thousand m³	See **ESG Databook 2026**	-
		Concentration of key pollutants in wastewater discharged	-	See **ESG Databook 2026**	-
		Temperature of water discharged, where relevant	-	Under investigation	-

* In the table below, see https://www.kanadevia.com/english/ir/data/pdf/esg2026_E.pdf. for “Kanadevia Performance.” The results of the LCA analysis for “Procurement” are presented in Appendix D.

TNFD core global disclosure indicators and metrics				Kanadevia Results	
No.	**Indicator**	**Metric**	**Unit**	**FY 2025 Businesses**	**Remarks**
C2.2	**Waste generation and disposal**	Weight of hazardous and non-hazardous waste generated by type	Thousand kg	See **ESG Databook 2026**	-
		Weight of hazardous and non-hazardous waste disposed of	Thousand kg	See **ESG Databook 2026**	-
		– Waste incinerated (with and without energy recovery)			
		– Waste sent to landfill			
		– Other disposal methods			
		Weight of hazardous and non-hazardous waste diverted from landfill (excluding thermal recycling):	Thousand kg	See **ESG Databook 2026**	-
		– Reused			
		– Recycled			
		– Other recovery operations			
C2.3	**Plastic pollution**	Plastic footprint as measured by total weight of plastics (polymers, durable goods and packaging) used or sold, broken down by raw material content	Thousand kg	Aggregation ongoing	Plastic waste generated at facilities conducting administrative, sales, development and design activities at business sites is thermally recycled. The weight of plastics contained in municipal waste used as feedstock in WtE/WtX processes is not tracked.
		For plastic packaging, proportion of plastics:	%	Aggregation ongoing	-
		– Re-usable			
		– Compostable			
		– Technically recyclable			
		– Recyclable in practice and at scale			

* In the table below, see https://www.kanadevia.com/english/ir/data/pdf/esg2026_E.pdf. for “Kanadevia Performance.” The results of the LCA analysis for “Procurement” are presented in **Appendix D.**

TNFD core global disclosure indicators and metrics				Kanadevia Results	
No.	**Indicator**	**Metric**	**Unit**	**FY 2025 Businesses**	**Remarks**
C2.4	**Non-GHG air pollutants**	Non-GHG air pollutants by type	Thousand kg	See **ESG Databook 2026**	At WtE facilities operated under contract, appropriate treatment is carried out for the following substances at management thresholds below regulatory limits or approximately 10 times stricter than regulatory limits. Soot and dust, sulphur oxides, nitrogen oxides, hydrogen chloride, mercury, dioxins
		– Particulate matter (PM2.5 and/or PM10)			
		– Nitrogen oxides (NO_2, NO and NO_3)			
		– Volatile organic compounds (VOCs or NMVOCs)			
		– Sulphur oxides (SO_2, SO, SO_3, SOx)			
		– Ammonia (NH_3)			
C3	**Resource use / replenishment**				
C3.0	**Water withdrawal and consumption from areas of water scarcity**	Water withdrawal and consumption from areas of water scarcity, including identification of water source	Thousand m^3	See **ESG Databook 2026**	The business does not withdraw water from areas of water scarcity. Each facility location is determined based on the customer’s environmental assessment and selected in areas abundant in water resources.

* In the table below, see https://www.kanadevia.com/english/ir/data/pdf/esg2026_E.pdf. for “Kanadevia Performance.” The results of the LCA analysis for “Procurement” are presented in **Appendix D**.

TNFD core global disclosure indicators and metrics				Kanadevia Results	
No.	**Indicator**	**Metric**	**Unit**	**FY 2025 Businesses**	**Remarks**
C3.1	**Quantity of high-risk natural commodities sourced from land/ocean/freshwater**	Quantity of high-risk natural commodities sourced under a sustainable management plan or certification programme, including proportion of total high-risk natural commodities			
		– Biomass	Thousand kg, (%)	37,000 (100%)	Biomass procured by the business refers to fuel for the Miyanosato Biomass Power Plant (wood chips obtained from unused wood). 100% of the procured amount is certified under the Forestry Agency’s “Certificate proving that the woody biomass is derived from thinned wood, etc.”
		– Minerals		- (-)	
		– Construction materials		- (-)	
		– Fossil fuels		- (-)	
		– Iron ore		- (-)	
		– Copper ore		- (-)	
		– Nickel ore		- (-)	
		– Lead ore		- (-)	
		– Zinc ore		- (-)	
		– Gold		- (-)	
		– Aluminium ore		- (-)	
		– Natural gas		- (-)	
		Quantity of high-risk natural commodities sourced from land/ocean/freshwater, split into types, including proportion of total natural commodities.	Thousand kg	-	As the volume of total natural commodities has not been aggregated, the proportion of high-risk natural commodities within total natural commodities has not been calculated.

* In the table below, see https://www.kanadevia.com/english/ir/data/pdf/esg2026_E.pdf. for “Kanadevia Performance.” The results of the LCA analysis for “Procurement” are presented in **Appendix D**.

TNFD core global disclosure indicators and metrics				Kanadevia Results	
No.	**Indicator**	**Metric**	**Unit**	**FY 2025 Businesses**	**Remarks**
C4	**Invasive alien species and other (placeholder indicator)**				
C4.0	**Measures against unintentional introduction of invasive alien species (IAS)**	Proportion of high-risk activities operated under appropriate measures to prevent unintentional introduction of IAS, or low-risk designed activities	-	No specific measures	-
C5	**State of nature (placeholder indicator)**				
C5.0	**Ecosystem condition**	Ecosystem condition	-	Under consideration	-
	Species extinction risk	Species extinction risk	-	Under consideration	-

Table 6-2: Core global disclosure indicators related to nature-related risks and opportunities

No.	Category	Metric	Kanadevia Results
C7.0	**Risks**	Value of assets, liabilities, revenue and expenses assessed as vulnerable to nature-related transition risks (total and proportion of total)	None
C7.1		Value of assets, liabilities, revenue and expenses assessed as vulnerable to nature-related physical risks (total and proportion of total)	Under consideration
C7.2		Description and value of significant fines/penalties received and litigation action in the year due to negative nature-related impacts	None
C7.3	**Opportunities**	Amount of capital expenditure, financing or investment deployed towards nature-related opportunities, by type of opportunity, with reference to a government or regulator green investment taxonomy or third-party industry or NGO taxonomy, where relevant	Sustainable finance: JPY 9,947 million Green-related development grants, including GI Fund: JPY 1,576 million
C7.4		Increase and proportion of revenue from products and services producing demonstrable positive impacts on nature, with a description of impacts	Revenue from businesses with demonstrable positive impacts on nature (FY 2025): JPY 557.9 billion (86.5% of consolidated revenue; up 10.5% YoY). Promotes businesses such as waste-to-energy and water reuse.

6.3 Climate- and Nature-related Targets

(1) Relationship between Climate, Nature, and the Businesses

With the Corporate Philosophy and Sustainable Vision in mind, the Kanadevia Group's starting point is to recognise the external environment from a long-term perspective and comprehensively identify issues based on The Four Sustainability Principles. Taking into account "**the perspective of society and stakeholders**," "**the perspective of impact on business continuity**," and the "**degree of difficulty of achievement**", the Group identified **the Seven Pillars of Success (Materialities)**. Among these, "Carbon Neutrality," "**complete circulation of resources**," "**maximization of environment's recovery power**," "**response to intensifying natural disasters**," and "**sustainable procurement**" are Pillars of Success closely related to climate and nature.

In this report, we analysed our worldwide operations across the business areas outlined in the Medium-term Management Plan etc., taking into account the scale of our operations, their impacts on climate and nature, and their assessability. The analysis showed that, in the Waste to Energy Business and other plant engineering businesses, climate- and nature-related decisions are primarily customer-driven. Activities such as awareness-raising and sharing of know-how to reduce suppliers' environmental impacts, as well as enhancing environmental technologies and proposal quality to customers, are directly linked to climate- and nature-related targets. The Group will also actively participate in and advocate for rule-making processes, including international agreements on climate- and nature-related policy decisions that influence customer decision-making.

(2) Desired State of the Businesses in 2050 and Current Initiatives

Based on the above, we have defined business-related goals (**Table 6-3**) from the perspective of climate- and nature-related targets.

As a result, we found that the relationship between the Pillars of Success and the business goals is not a simple one-to-one correspondence, but rather multilayered and interconnected. Going forward, we will consider expanding the scope of goal-setting to include social dimensions, with the aim of covering all of the Pillars of Success.

Table 6-3: Climate- and Nature-related Business Goals

Area	Goals	Definition
GHG emissions	Carbon Neutrality	Carbon Neutrality in the Kanadevia Group and at customers
Impacts from Water Use	Water Positive	Water-positive outcomes in watersheds where the Kanadevia Group and customers operate
Plastic Emissions	Net-zero impacts from fossil-based plastics	Net-zero impacts from fossil-based plastics in the Kanadevia Group and at customers
Impacts from Land Use	Minimise waste landfills at customers	Land-use impacts arise when business activities alter land or seabed. New facilities necessarily involve land-use change; given customers' established environmental-assessment practices, the goal is to minimise waste landfills, particularly in developing regions.
Impacts from Mineral Use	Net-zero impacts from mineral use	Minimise new mineral extraction through recycling
Impacts from Hazardous Substances	Achieve a zero-emission level for hazardous substances	Identify chemicals requiring management with reference to the RoHS Directive, REACH and other regulations, and aim for a zero-emission level.

GHG Emissions

For GHG emissions, the Kanadevia Group has set **Carbon Neutrality** as its goal.

For Scope 1 and Scope 2, the Group aims to improve the efficiency of its own power plants and decarbonise thermal power sources guided by the " Transition Roadmap for the Power Sector" (November 2025, Agency for Natural Resources and Energy, Japan)[97]. In manufacturing activities, the Group will also actively adopt new technologies, including its own products, switch fuels, use renewable energy, improve energy self-sufficiency, and systematically introduce energy-saving equipment.

For Scope 3, the greatest challenge lies in minimising emissions in Category 11. Although the GHG Protocol does not specify a calculation method for GHG emissions from Waste to Energy facilities, the Group has developed its own calculation method in its pursuit of net-zero environmental impacts. The composition of waste incinerated at Waste to Energy facilities varies by country and region, but the Group has adopted a conservative calculation method based on literature on municipal solid waste and other sources.

Calculations based on this method show that most of the Group's Scope 3 Category 11 emissions are CO_2 generated when Waste to Energy facilities are used.

CO_2 emissions from Waste to Energy facilities decrease as the proportion of plastics in waste decreases. The Group will therefore collaborate with customers to improve plastic sorting and recycling technologies and promote sorting and recycling at source.

Table 6-4: Targets for GHG emissions (through 2050)

Area	Targets	Approach
GHG emissions	FY 2030: 50% reduction vs. FY 2013 FY 2035: 60% reduction vs. FY 2013 FY 2040: 75% reduction vs. FY 2013	Priority is given to reducing GHG emissions from the Kanadevia Group's own activities. Carbon credits may be used where residual emissions cannot be reduced sufficiently through the Group's own efforts.
GHG emissions (Scopes 1, 2 and 3)	FY 2050: Carbon Neutrality	The largest source within Scope 3 Category 11 is CO_2 emitted during use of Waste to Energy facilities. We will advance plastic sorting and CCUS, strengthen technologies that contribute to avoided emissions, and expand proposals with the aim of achieving Carbon Neutrality across Scopes 1, 2 and 3 by FY 2050.
GHG emissions Reduction contribution	FY2030 40,000 kt-CO_2	

Category 1, the second-largest source of Scope 3 emissions after Category 11, is considered to include significant emissions from steel production, power generation, and infrastructure construction (see **Appendix C.2**). Accordingly, the Group will engage suppliers, conduct awareness-raising activities for decarbonisation, share methods and know-how for managing and reducing GHG emissions, and promote understanding of the Group Basic Procurement Policy among suppliers.

The Group will also promote customer initiatives to reduce GHG emissions described in **Chapter 4** and increase avoided emissions. The Group may use carbon credits as needed to support these initiatives, subject to the Group's policy and applicable criteria. Based on the goals and measures above, targets have been established for the following items (**Table 6-4**).

These targets still contain some gaps toward achieving net-zero environmental impacts. Specifically, for Scope 3 Category 1 in the upstream value chain, steel, machinery, and other items associated with high impacts use fixed GHG emission factors from input-output tables. As a result, reductions cannot be achieved without reducing activity levels (i.e., production volume), which is difficult to reconcile with business growth. In addition, because machinery is purchased as modules, it is extremely difficult to identify and manage the manufacturers of the steel products contained within them, making it difficult to set reduction targets. The Group therefore plans first to enhance supplier engagement while considering measures towards Carbon Neutrality and seeking Climate SBT certification.

At its own sites, the Group aims to steadily achieve its targets by seeking Climate SBT certification and driving GHG emission reductions through the internal adoption and implementation of its Carbon Neutrality Guidelines, including the setting and operation of internal carbon pricing. In the downstream value chain, GHG emissions from Waste to Energy under Scope 3 Category 11 are subject to considerable uncertainty because waste volumes and the share of plastics depend on customers, municipalities, and social systems. Accordingly, the Group plans to set targets relating to what it can influence directly—reducing GHG emissions by introducing CO_2 capture facilities at Waste to Energy plants.

Impacts from Water Use

For “impacts from water use,” the Kanadevia Group’s goal is to achieve **Water Positive** outcomes in the watersheds in which the Group and its customers operate.

The magnitude of impacts from water use—that is, the level of water risk—varies by watershed. Responses differ between watersheds with abundant groundwater and ample drinking or industrial water and those without such resources. The Group needs to define water risk going forward. Accordingly, this report broadly focuses on water scarcity and water pollution and defines a healthy water cycle within a watershed as a Water Positive condition for that watershed.

In watersheds with high water risk, measures against water scarcity are essential, and the Group will seek to replenish 100% of the water used within the same watershed. Depending on the location of business activities, it will also consider supporting conservation of water-source forests. Use of water credits within the same watershed will be considered where necessary. Wastewater quality will also be managed rigorously. Where the Group conducts business activities directly, it will set voluntary standards stricter than the water-quality standards established in the relevant region and thoroughly manage water quality.

Where customers use Group products, facilities will be designed and operational training provided so that they can be operated at levels consistent with the Group’s voluntary standards.

In watersheds with low water risk, water-quality management is the primary consideration. For the Group’s own business activities, it will comply with voluntary standards stricter than regulatory limits applicable at the equipment installation location.

Where customers use Group products, design and training will be enhanced to enable rigorous water-quality management.

Table 6-5: Targets for water use-related pressures (through 2050)

Area	Targets	Approach
Water use (areas with high water risk)	Present–FY2050: Compliance with voluntary standards stricter than local water quality standards FY2050: 100% replenishment of water used in manufacturing and operations	Since measures against water shortages are essential in watersheds with high water risk, the target is to replenish 100% of the water used within the same watershed. This includes water credits within the same watershed and support for water-replenishment activities. For both high- and low-water-risk watersheds, wastewater quality management is important. The Kanadevia Group will comply with voluntary standards stricter than the water quality standards in the relevant region.
Water use (areas with low water risk)	Present–FY2050: Compliance with voluntary standards stricter than local water-quality standards	

To achieve this goal, it is particularly important at water-treatment facilities handling wastewater with high concentrations of hazardous substances, such as mine wastewater, to prevent untreated water from being discharged as a result of equipment failure or insufficient treatment capacity. The Group will therefore continue developing more robust, longer-life equipment to maintain high reliability in water-treatment systems.

Based on the goals and measures above, targets have been established for the following items (**Table 6-5**).

These targets still contain some gaps toward achieving net-zero environmental impacts. Specifically, at the upstream value chain, the assessment of the environmental impact of water use has not been completed due to a lack of information on the location of suppliers and on watershed.

To address these gaps, we plan to progressively collect information from major business partners and consider setting watershed-specific targets with a view to SBTN Freshwater[98)], thereby closing the gaps over time. As none of our own sites are located in high water-risk watersheds, we believe that we can achieve "Net-zero Environmental Impacts" by continuing to comply with applicable laws, regulations, and voluntary standards under our environmental management system (EMS).

In addition, with SBTN Freshwater in mind, we plan to consider watershed-specific targets for indicators such as water withdrawal and nutrient discharges. For the downstream value chain, we believe that the installation of facilities for mine wastewater treatment and sewage treatment can significantly reduce pressures associated with water use at the local watershed level, enabling us to achieve net-zero environmental impacts and net-positive outcomes. Accordingly, the Group plans to expand the deployment of these facilities, with a particular focus on watersheds facing high water-related risks.



Plastic Pollution

In the area of plastic pollution, we set **net-zero pressure from fossil-derived plastics** as the goal and will promote 100% recycling together with manufacturers.

To reduce generation at source, we will minimize the use of fossil-derived plastics and non-biodegradable plastics, both virgin materials, in our own manufacturing. When plastics are used, we will use biodegradable plastics and recycled plastics, prioritize plastic products designed for easy sorting, and ensure thorough separation. Through these actions, we aim to minimize the usage rate of fossil-derived plastics and similar materials in our own operations.

For fossil-derived and non-biodegradable plastics contained in Kanadevia Group facilities and products, it is essential to gain understanding from customers and suppliers regarding biodegradable and recycled plastics and to advance recycling technologies by plastic manufacturers. We will encourage suppliers to propose recycled plastic products with quality comparable to virgin products and make careful proposals to customers to deepen understanding of recycled plastic products. To achieve 100% recycling of plastics, technologies for sorting plastics into recyclable material streams are also needed. Source separation and sorting technology improvements described under GHG emissions can also serve as measures in this area. We will work on business and technology development, including establishing routes through which plastic manufacturers take back sorted plastics.

Based on these goals and measures, the following targets have been set (Table 6-6). Targets to minimize pressures from fossil-derived plastics contained in products will continue to be examined with reference to sources such as the Action Plan for Building a Recycled Plastic Market for Automobiles (Ministry of the Environment, Japan, March 2025)[99)].

These targets still contain some gaps toward achieving net-zero environmental impacts. Upstream, the international plastics treaty has not yet reached final agreement, including at INC-5.2 in August 2025, and intergovernmental negotiations are continuing; common global reduction rules have not been finalized. It is therefore difficult to prepare concrete plans for the types and volumes of fossil-derived/non-biodegradable plastics in procured items. Because Kanadevia products primarily use steel and cement as raw materials, plastics are a lower priority from the perspective of procurement-related environmental impact; for the time being, we will proceed with understanding plastic procurement volumes.

At the Group's own sites, we plan to advance reduction, sorting and recycling through the EMS, focusing primarily on packaging materials, which are a major source of plastic waste.

Downstream, the amount of plastics in waste incinerated at WtE facilities, their separation and material substitution depend on choices made by individual municipalities and residents, and are difficult for the Kanadevia Group to control. We will therefore continue and expand customer collaboration, such as CEPA activities related to waste, to reduce plastics contained in waste and move closer to the reduction of plastics incinerated envisioned in Resilience Eco Society®.

Table 6-6: Targets for plastic pollution (through 2050)

Area	Targets	Approach
Pressure from fossil-derived plastics in own manufacturing activities	FY 2050: Zero use rate of virgin fossil-derived plastics and non-biodegradable plastics	Promote use of biodegradable bioplastics and recycled materials. By 2050, minimise the use rate of fossil-derived plastics and non-biodegradable plastics (virgin materials).

Land-use Pressures

For land-use pressures, the goal is to **minimise landfill sites in our own and customers' operations**.

As shown in Section 4.9, in regions where waste management maturity is still at an early stage, simply introducing waste incinerators can reduce landfill volume to 3% of generated waste. Since global waste generation in 2050 is expected to be enormous, we believe pressure from land use can be minimised by actively proposing the businesses shown in Section 4.9. Accordingly, we also set a target to reduce open dumping and landfill in areas where Kanadevia Group operates to zero by 2050, aiming to achieve it through expanded deployment of WtE facilities and related solutions.

For waste-related pressure, based on the analysis of core global disclosure indicators, we set two targets (Table 6-7). First, to reduce pressure from waste generated by our own manufacturing, we set achieving zero-emission levels by 2050 as the target. We will expand business sites that increase recycling rates for waste generated by Group sites and bring final landfill rates as close to zero as possible, namely less than 1%.

To reduce pressure from waste generated by customers' activities, we will conduct business and technology development to recycle incineration residues such as bottom ash and fly ash and aim for an incineration-residue resource recovery rate of at least 95%.

Based on these goals and measures, the following targets have been set (Table 6-7).

These targets still contain some gaps toward achieving net-zero environmental impacts. Upstream, data on land conversion at suppliers is limited. While considering SBTN Land[98] validation, we will examine targets for no conversion of natural ecosystems, screen high-risk raw materials, confirm the availability of certified materials, and raise the level of initiatives. A new target has been set for 100% certified biomass by FY 2030.

For our own sites, to achieve net-zero environmental impact as early as possible, we moved the target year for recycling rates forward from FY 2040 to FY 2030 and set a target for landfill rates. Downstream, at customer facilities, the Resilience Eco Society® vision assumes that pressures from procured items and energy can be reduced, but land-use conversion is often specified by customers and is difficult for the Group to control. However, restoring nature by creating green spaces on facilities, as envisioned in Resilience Eco Society®, is possible, and we will continue to engage customers. WtE/WtX can also contribute to preventing land-use conversion and restoring natural ecosystems by reducing open dumping and landfill sites.

Table 6-7: Targets for land-use pressures (through 2050)

Area	Targets	Approach
Waste-related pressure (own manufacturing activities)	FY 2030: Recycling rate: 90% Landfill rate: less than 3% Share of certified biomass materials: 100% FY 2050: Achievement of zero-emission levels	For waste generated from Kanadevia Group sites, reduce generation, increase recycling rates, and bring final landfill rates as close to zero as possible. To ensure appropriate land use in biomass production, certified material ratio will be 100%.
Waste-related pressure (customer activities)	Incineration residue resource recovery (recycling) rate of 95% or more	Develop businesses and technologies to enable customers to recycle incineration residues such as bottom ash and fly ash.
Landfill-related pressure (customer activities)	Reduction rate of open dumping areas (areas defined by Kanadevia Group) FY 2040: 70% FY 2050: 100%	In areas where Kanadevia Group operates, introduce WtE facilities to reduce landfill volumes and prevent new land use.

Mineral Use-related Pressures

For mineral use-related pressures, we set **net-zero pressure from mineral use** as the goal.

For minerals with established 3R systems, such as iron, increasing the use of recycled materials is a measure to achieve the goal. For minerals without established 3R systems, such as platinum, individual measures need to be examined, including substitution with other mineral materials. First, Kanadevia Group will identify minerals used in its products and services, and components containing them, that require minimization of resource consumption. We will then examine substitution possibilities with manufacturers and suppliers. Based on the results, minerals that the Group recognizes as requiring particular management will be designated as environmentally managed minerals, and recycled materials and substitutes will be used systematically.

To achieve zero pressure from mineral use, technologies for separating metals after products are recovered are also required. Improvements in sorting technologies described under GHG emissions may also serve as measures in this area. We will work on business and technology development to promote mineral recycling.

Based on these goals and measures, the following targets have been set (**Table 6-8**). We will first identify environmentally managed minerals. We then plan to engage relevant stakeholders and review the targets.

These targets still contain some gaps toward achieving net-zero environmental impacts. Upstream, even for iron, the mineral with the largest procurement volume for the Group, it is extremely difficult to identify and manage the producers of iron products contained in purchased machinery because machinery is purchased as modules.

We will therefore first strengthen supplier engagement. At our own sites, we set a process target this year to identify environmentally managed minerals. After identification, we will promote use of recycled materials and substitution of minerals that cannot be recycled. Downstream, many uncertainties exist because processes leading to recycling, such as dismantling, disposal, recovery, sorting and recycling, depend on customers and local communities. Nevertheless, the Group will promote recycling at the Zero-Waste Hub envisioned in Resilience Eco Society®.

Table 6-8: Targets for mineral use-related pressures (through 2050)

Area	Targets	Approach
Mineral use-related pressure	FY 2050: Zero final disposal of environmentally managed minerals	Environmentally managed minerals means minerals used in products and services that require minimised resource consumption and that Kanadevia Group determines can be substituted with other minerals. These minerals will be defined in future.

Hazardous Chemical Substance-related Pressures

For hazardous chemical substance-related pressures, our goal is to **achieve zero-emission levels for hazardous substances** in our own and customers' operations.

Use and release of hazardous substances are subject to strict regulatory limits in many countries and regions, and compliance with these regulations is required in business activities and in the operation and use of customer facilities and products. However, in some countries or regions, no regulatory limits may exist, or regulations may be applied leniently even where limits exist.

When Kanadevia Group conducts business activities or operates facilities under contract, it sets even stricter voluntary standards by referring to the strictest regulatory values established in the relevant country or region and works to achieve them. For example, for dioxins, HCl, NOx, SOx and other substances contained in exhaust gas from WtE facilities, Japan's Air Pollution Control Act sets standards based on concentrations assumed to have no impact on humans, and local governments set standards stricter than these legal standards. Many WtE facilities operated by the Group adopt hazardous gas standards stricter than legal requirements and manage them with prescribed methods and frequencies.

Zero emissions of hazardous substances contained in products and services are also necessary. Any chemical substance can negatively affect the environment and human health if used incorrectly, but with proper knowledge and appropriate use, substances that cause negative impacts are limited.

Therefore, with reference to EU regulations such as the RoHS Directive and REACH Regulation and Japanese regulations such as PRTR, we will define substances requiring management based on risk assessment and rigorously manage their transfer and release volumes. For substances with particularly significant impacts on the environment or human health and used in high-risk applications, we will consider use restrictions, such as total prohibition or prohibition once alternatives are found, with manufacturers and suppliers. Based on these reviews, substances that the Group recognises as requiring particular management will be designated as “environmentally managed substances”, and substitutes will be introduced systematically.

The Group asks suppliers to understand the Group Basic Procurement Policy. In addition to direct suppliers, we plan to seek understanding from secondary suppliers. We will raise awareness among suppliers so they actively manage hazardous chemical substances as part of environmental management.

Based on these goals and measures, the following targets have been set (**Table 6-9**). We will first identify environmentally managed substances. We then plan to engage relevant stakeholders and review the targets.

These targets still contain some gaps toward achieving net-zero environmental impacts. Specifically, environmentally managed substances had not been defined across upstream value chain, own operations or downstream, and initiatives had not progressed. Therefore, this year we set a process target to identify managed substances. After identification, we will formulate substitution plans for target substances contained in procured items. At own sites and downstream, as described above, we will set and comply with voluntary standards for chemical emissions from facilities that are stricter than legal requirements.

Table 6-9: Targets for hazardous chemical substance-related pressures (through 2050)

Area	Targets	Approach
Hazardous chemical substance-related pressure	FY 2050: Substitute environmentally managed substances in high-risk applications	Environmentally managed substances means substances used in products and services that Kanadevia Group judges to have significant impacts on the global environment and human health. These substances will be defined in future. The definition of high-risk applications will continue to be reviewed.

Other Pressures

For targets for net-zero environmental impacts, achievement should bring planetary boundary indicators within the range of environmental resilience. From this perspective, planetary boundary items not explicitly covered by the pressures above are addressed as follows.

• **Stratospheric ozone depletion** – Addressed through climate change measures because ozone-depleting substances such as CFCs are also GHGs.

• **Atmospheric aerosol loading** – Addressed through chemical substance measures because air pollutants in exhaust gases contribute to aerosol formation.

• **Ocean acidification** – Addressed through climate change measures because increasing GHG concentrations are the primary driver of ocean acidification.

• **Nitrogen and phosphorus cycles** – Addressed through wastewater management at our own sites, including compliance with legal requirements and voluntary standards. The Group also contributes through the recovery of nitrogen and phosphorus in water treatment businesses and through phosphorus recovery from pig manure.

• **Biosphere integrity** – Addressed through actions across the value chain. Upstream, we are improving procurement practices, including a target of 100% certified biomass fuel. At our own sites, direct impacts are considered limited because many facilities are located in already-developed industrial areas. Downstream, we support customers' environmental assessments and contribute to the mitigation of impacts on ecosystems. Where WtE facilities are installed at existing landfill sites, impacts on ecosystems are generally reduced, and direct adverse impacts are considered limited.



6.4 Current Status and Future Direction of Metrics and Targets Related to People & Society

For people- and society-related targets, Kanadevia Group will proceed with consideration by referring to the approach in the TISFD Beta, while taking into account its business characteristics, data availability and alignment with existing management processes. Metrics and targets related to people and society will be organised as mainly linked to “Maximize people’s well-being” among the seven pillars of success, and also connected to “sustainable procurement” and “enhanced corporate governance.”

At present, we are organising existing metrics from both perspectives: understanding the status and management processes of people working in the Group and its supply chain, and understanding business outcomes for local communities, customers and users. In the initial phase, we will use process and performance metrics with high data availability and comparability, such as number of employees, training, occupational health and safety, engagement, DE&I, human rights, supply chain and compliance. In the future, we will gradually advance the concept of indicators to capture social value and outcomes created through the business.

These metrics do not, at this stage, comprehensively or uniformly evaluate the outcomes of initiatives related to people and society. Their relationship with the pillars of success is not intended to simply compare the degree of achievement of each pillar, but to confirm how people- and society-related metrics connect to the Group's management priorities. Fiscal year, scope, standalone/consolidated classification and calculation units will be organised as a basis for future enhancement of disclosure while confirming consistency with finalized ESG Databook figures.

