

Climate Change Risks and Opportunities, and Strategies and Initiatives Based on Scenario Analysis

June 27, 2024 Benesse Style Care Co., Ltd.

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Embrace each person's true character.

To empower people to live their best life, we start by learning about each person's life.

What has made them happy? What is something on which they will not compromise? What is their dream?

Understanding a person's journey thus far allows us to be a close companion in daily life going forward.

We continue to learn about each person's life in order to help them realize their best way of living.

Benesse Style Care

Basic Philosophy of Benesse Style Care Co., Ltd. (Childcare Business)

Each child will grow into a unique individual.

Children possess seeds that grow on their own. We want to be the light, water, and soil which allow children to blossom.

Children develop the thirst for learning through the excitement of meeting, interacting and playing with people.

We continue to listen to the voice of each child's heart and value our interactions with each child.





In conjunction with the setting of SBTs (Science Based Targets consistent with the Paris Agreement) in 2023 to move towards a decarbonized society, we envisioned a world where global warming would be 1.5°C and would eventually reach 4°C, and envisioned "scenario societies" for 2030 and 2050. We then considered and organized the opportunities and risks for our Elderly Care Business and Childcare Business in these societies, and how we can contribute to solving these issues through our business.

Businesses subject to analysis

Elderly Care Business and Childcare Business of Benesse Style Care Co., Ltd.

(Accounting for approximately 30% of sales by Benesse Holdings, Inc.)

Scenario Analysis Process



Overview of important risks and opportunities

Summarize the value chain and external environment of the Long-Term Care Business and Childcare Business, and identify risks and opportunities of pursuing a decarbonized society under the 1.5°C scenario and subsequent 4°C scenario

	Impact of climate change	Risks/opportunities	Specific impacts on Long-Term Care Business and Childcare Business	
Transition risk	Enhancement of government environmental regulations	Introduction of carbon tax	Tax on GHG emissions from electricity, gas, etc.	
			Increasing costs due to the price pass-through for the carbon tax imposed on food production	
			Increasing costs due to the price pass-through for the carbon tax imposed on construction materials	
		ZEB becoming mandatory	Rising costs for new construction and renovation	
	Increasing demand for renewable energy	Rising renewable energy prices	Increasing energy costs due to introduction of renewable energy	
	Change in consciousness	Increasing employee awareness toward climate change	If disaster prevention response capabilities and sustainability become the criteria for selecting companies, and facilities with high response capabilities are selected, there will be an impact on securing new, talented personnel and retaining employees	
Physical risk	Increasing severity of storm and flood damage	Human casualties at the time of a disaster	Inadequate disaster prevention measures or failure to implement responses such as appropriate evacuation measures may result in residents and children being injured or killed in the worst-case scenario (including litigation and reputation risks)	
		Suspension of long-term care services due to water and electricity infrastructure being disrupted by storm and flood damage	When power outages or water outages occur due to storms and floods (landslides, floods, typhoons, etc.), it will become difficult to provide long-term care or childcare services. ⇒ Costs for securing enough stored water and electricity to last for one week	
		Damage to buildings and facilities due to wind and floods	At facilities and business sites, there is a risk of damage to walls, roofs, windows, etc., of buildings due to strong winds, and damage to equipment due to water inundation from flooding caused by levees breaking, etc.	
	Poor harvests and reduced yield	Rising food prices	Climate change (extreme heat, wind and flood damage, rising sea temperatures, etc.) will impact food productivity, leading to higher food prices	
Opportunities	Enhancement of government environmental regulations	Introduction of carbon tax	Carbon tax exemption for achieving zero GHG emissions *Tax on GHG emissions from electricity, gas, etc.	

Setting scenarios related to climate change

• Scenario definition: Align a scenario that pursues a decarbonized society with the setting of SBTs, and adopt a scenario which envisions a temperature rise of less than 1.5°C in 2100. The scenario assumes that present trends will continue and does not envision progress in decarbonization, with temperatures rising by 4°C by 2100

*The International Energy Agency (IEA) published "Net Zero by 2050 - A Roadmap for the Global Energy Sector" and "World Energy Outlook 2023 (WEO2023)," which present a scenario for realizing a decarbonized society and limiting the rise in temperature to 1.5°C compared to pre-Industrial Revolution levels (Net Zero Emissions), and a scenario that combines the goals and policies presented by each country in the Paris Agreement (STEPS = a scenario envisioning a rise of approximately 2.4°C). We referred to these scenarios. We also referred to the SSP1-1.9 scenario, which envisions temperatures rising by 1.5°C by 2100 compared to pre-Industrial Revolution, and the SSP5-8.5 scenario, which envisions temperatures rising by 4°C, as published by the United Nations Intergovernmental Panel on Climate Change (IPCC) in its Sixth Assessment Report (AR6).

• Target region: Japan

• Reference data for defining scenarios: IEA World Energy Outlook 2023

- IPCC Fifth Assessment Report, IPCC Sixth Synthesis Report
- Physical risk: Hazard maps for each local government
- Carbon tax: Set as shown on the right,

based on the World Energy Outlook 2023

- The 1.5°C target for 2030 is set based on the price (140 USD/t-CO2) of
developed countries that have committed to net zero emissions in the
WEO2023 Net Zero Emissions by 2050 Scenario.
- The 4°C target for 2030 is set based on the price (42 USD/t-CO2) in Korea
in the WEO2023 Stated Policy Scenario
- The 1.5°C target for 2050 is set based on the price (250 USD/t-CO2) of
developed countries that have committed to net zero emissions in the
WEO2023 Net Zero Emissions by 2050 Scenario.
- The 4°C target for 2050 is set based on the price (89 USD/t-CO2) in Korea

in the WEO2023 Stated Policy Scenario

We use international climate change scenarios as information sources to define the following images of society envisioned from

Scenario	Image of society	Referenced scenario
1.5°C scenario	The world will experience a 1.5°C rise in average temperature by 2100 -Active legislation and technological innovation are progressing, including the large-scale introduction of renewable energy and the introduction of a carbon tax -Consumers are also becoming more oriented toward decarbonization, leading to changes in lifestyles ⇒ There will be increased impact when transitioning to a decarbonized society; for example, legal regulations and reputation risks	IEA : Net Zero Emissions by 2050 Scenario (World Energy Outlook2023) IPCC : SSP1-1.9 (AR6)
4°C scenario	The world will experience a 4°C rise in average temperature by 2100 -The transition to a decarbonized society (introduction of renewable energy, carbon tax, etc.) is not progressing -Climate change will lead to more extreme weather, frequent flooding, and a higher risk of infectious disease ⇒The impact of physical risks will increase as an impact of climate change	IEA: Stated Policy Scenario (World Energy Outlook 2023) IPCC: SSP5-8.5 (AR6)

Social image by scenario related to climate change (1.5°C in 2030)



Social image by scenario related to climate change (4°C in 2050)



Identify and assess the importance of risks and opportunities related to climate change (business impact assessment)

Introduction of a carbon tax will have a large financial impact on Long-Term Care Business and Childcare Business

	Impact of climate change	Risks/opportunities for Long-Term Care Business and Childcare Business	Risk details	Degree of impact	Onset period
Risk	Enhancement of government environmental regulations	Introduction of carbon tax	Tax on GHG emissions from electricity, gas, etc. *If goal is achieved	Medium	Medium- term
			Increasing costs due to the price pass-through for the carbon tax imposed on food production	Small	Medium- term
			Increasing costs due to the price pass-through for the carbon tax imposed on construction materials	Medium	Medium- term
	Increasing demand for renewable energy	Rising renewable energy prices	Increasing energy costs due to introduction of renewable energy	Medium	Medium- term
	Change in consciousness	Increasing employee awareness toward climate change	If disaster prevention response capabilities and sustainability become the criteria for selecting companies, and facilities with high response capabilities are selected, there will be an impact on securing new, talented personnel and retaining employees	Small	Medium- term
Opportunities	Enhancement of government environmental regulations	Introduction of carbon tax	Carbon tax exemption for achieving zero GHG emissions *Tax on GHG emissions from electricity, gas, etc.	Medium	Medium- term

[Evaluation criteria for degree of importance]

Based on the evaluation criteria for the financial impact on revenues and expenses incurred in one year, the degree of importance is set to three levels (large, medium, small)

Large = 10 billion yen or more, Medium = 1 billion yen to less than 10 billion yen, Small = less than 1 billion yen

[Time of manifestation]

Short term (up to 2023), medium term (2024 to 2030), long term (2031 to 2050)



Benesse Style Care's paid nursing homes are promoting the switch to LED lighting to ensure that residents can spend their day in comfort and to help reduce carbon emissions at the nursing homes.

Approximately 70% of our nursing homes have already switched to LED lighting (as of the end of FY2023). We plan to switch the remaining homes to LED lighting over the next three years.

We plan to install LED lighting in new nursing homes at the time of construction.

Before renovation (fluorescent lights)







20% reduction in overall electricity consumption at nursing homes



Benesse Style Care plans to procure CO_2 -free electricity which does not emit CO_2 when generated, and to reduce CO_2 emissions from electricity use by 50% by FY2030. The resulting amount of offset will be approximately 14,500 t-CO2.

Reduce CO₂ emissions from electricity usage by 50%

Introduction of energy management systems

We will cooperate with retail power companies to introduce an energy management system which optimizes electricity usage and measures effectiveness. Based on this system, we plan to formulate a medium- to long-term roadmap for reducing electricity usage.

Energy creation

Benesse Style Care's paid nursing homes plan to proactively install solar panels in new nursing homes in order to promote the use of electricity from renewable energy sources.

The plan is to generate and consume approximately 15%* of the electricity used at nursing homes through self-generation and self-consumption.



Aria Yakumo Nursing Home, Yamanotetori

*Average value

15% of the electricity used in homes is self-generated



Promote introduction of EVs

Benesse Style Care aims to switch 100% of its vehicles to electric vehicles (EVs) by 2029.

*Excluding wheelchair-accessible vehicles



Future strategy and initiatives

BCP measures

The impact of intensifying disasters caused by climate change is growing every year. BCP measures to prepare for natural disasters have become a key management issue in the long-term care and childcare businesses. Benesse Style Care plans to combine solar power generation, storage batteries, EVs, and external power supply devices to prepare for initial response at our nursing homes in the event of a disaster.

Solar power generation and storage batteries



• Installation of 50 kW of solar power generation facilities in each nursing home

Installation of a 32 kW battery

EVs and external power sources



Each unit is equipped with an external power supply with a capacity of 1,500W and is dispatched to the nursing home affected by the disaster

We plan to continue to maintain and strengthen our BCP measures to prepare for intensifying disasters caused by climate change

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