

Obayashi's Nature-related Risks and Opportunities

Category	Subcategory	Dependencies /Impacts	Risks and opportunities [Categories in scope]	Countermeasures	Probability	Timeframe	Relevant pages
Transition risks	Policy	Use of ecosystems, Disturbance	<u>[Procured materials (iron ore, coal, limestone)]</u> Increase in procurement cost due to growing needs for after-the-extraction care in extraction sites of raw materials, such as backfilling and reforestation	<ul style="list-style-type: none"> Establish a sustainable procurement system by enhancing supply chain engagement Facilitate the use of materials ensuring traceability and certified materials satisfying the requirements for resource preservation and respect for human rights Develop technologies for recycled materials and alternative materials contributing to resource recycling and facilitate their use Promote circular economy in the construction business by improving the recycling rate of construction waste and other measures Establish design and construction techniques contributing to nature positivity, such as wooden structures and interiors, and develop a supply chain Protect forest resources in Japan and abroad by facilitating sustainable use in the entire supply chain and appropriate forest stewardship for domestic timber ready for logging Develop technologies for nature positivity and green infrastructure and facilitate their use 	Medium to high	Medium- to long-term	a, b, c, d, e, g, h, j, k
			<u>[Procured materials (sand)]</u> Increase in procurement cost due to the need for replacement of suppliers and the search for alternative resources caused by nature conservation and tighter regulations in extraction sites of raw materials		High	Short-term	
			<u>[Procured materials (timber)]</u> Replacement of suppliers and increase in procurement cost due to nature conservation and tighter regulations for timber procurement		Medium	Medium- to long-term	
		GHG emissions	<u>[Procured materials (iron ore, coal, sand, limestone)]</u> Increase in procurement cost due to higher procurement prices of raw materials resulting from the introduction of a carbon tax		Medium to high	Short- to long-term	
			<u>[Procured materials (timber)]</u> Increase in procurement cost due to reduction in volume of timber distributed in the market caused by tightened preservation policy of forests as GHG sink		Medium	Short-term	
	Reputation	Use of ecosystems, Disturbance	<u>[Procured materials (sand, timber)]</u> Lower reputation in case of significant impact on ecosystems in extraction sites of raw materials or procurement without confirmation of legality		Medium	Short- to long-term	
	Market	Use of ecosystems, Pollution, Solid waste	<u>[Design and construction (building construction, civil engineering)]</u> Increases in monitoring and environmental management costs due to further needs for environmental monitoring in areas surrounding a site under construction as a result of growing interest in nature positivity Cost incurred for addressing the loss of the regulating function of nature because of any change in a surrounding environment caused by the construction or structure itself	<ul style="list-style-type: none"> Improve competitiveness with construction methods and management technologies mitigating and eliminating the impact on the environment Facilitate the development of quantitative evaluation of biodiversity, environmental monitoring technologies, and related technologies in each phase from planning through demolition Promote technological development contributing to nature positivity and green infrastructure, and proactively distribute information to stakeholders and make technical proposals to customers 	Medium	Medium- to long-term	a, b, c, d, e, g, h
Physical risks	Chronic	Provisioning services /Use of ecosystems	<u>[Procured materials (iron ore, sand)]</u> Increase in procurement cost or downscaling of business operations due to the requirement for searching for alternative resources or developing new construction methods / technologies as a result of resource depletion of main procured construction materials in the construction business	<ul style="list-style-type: none"> Develop technologies for recycled materials and alternative materials contributing to resource recycling and facilitate their use Promote the development of construction methods / technologies contributing to utilization of sustainable alternative resources or nature positive resources 	High	Short- to long-term	a, b, c, d, e, g, h, j, k
		Water use	<u>[Design and construction (building construction, civil engineering)]</u> Difficulties or cost increase in the construction business arising from restricted water use caused by depletion of water resources	<ul style="list-style-type: none"> Establish construction methods / construction techniques consuming less water such as water recycling Manage water risks in construction by receiving a heads-up about restrictions on use of water resources and depleted areas using a water stress map, etc. 	Medium	Medium- to long-term	c, f
	Acute	Use of ecosystems	<u>[Design and construction (building construction, civil engineering)]</u> Increased nature-related damage in construction sites due to increased frequency and severity of natural disasters	<ul style="list-style-type: none"> Develop technologies for responding disaster preparedness and recovery such as remotely operable construction machines Strengthen our business continuity capabilities in case of a disaster by building a strong network working together with the supply chain 	High	Short-term	i
Opportunities	Market		<u>[Design and construction (building construction, civil engineering)]</u> Expanded business opportunities due to growing needs for nature positivity and green infrastructure	<ul style="list-style-type: none"> Implement design and construction considering living in harmony with nature and resource recycling Promote circular economy in the construction business by improving a recycling rate of construction waste Promote the development of technologies contributing to nature positivity and green infrastructure, and proactively distribute information to stakeholders and make technical proposals to customers 	Medium	Medium- to long-term	b, c, e
	Reputation		<u>[Design and construction (building construction, civil engineering)]</u> Enhanced reputation due to growing awareness of construction methods and management techniques contributing to mitigation and elimination of the impact on the environment as well as technologies for green infrastructure		Medium	Medium- to long-term	
	Resource efficiency /Sustainable use of natural resources		<u>[Design and construction (building construction, civil engineering)]</u> Expanded business opportunities due to growing needs for technologies to use sustainable timber	<ul style="list-style-type: none"> In utilizing timber, aim to build a circular model (Circular Timber Construction®) including the optimized supply chain under OBASYASHI WOOD VISION, promote the development of technologies and their commercialization in the three phases of upstream (tree planting, cultivation), midstream (processing, procurement), and downstream (construction, power generation, reuse, and recycling) 	Medium	Medium- to long-term	b, e, h