

CLIMATE RISK EXPOSURE SCREENING REPORT

Level I of the IDB Invest Climate Risk Assessment

Thursday, September 30, 2021

Transaction Name	Masisa
Transaction Number	13662-01
Physical Risk Exposure	High
Transition Risk Exposure	Medium

This report classifies the project into low, medium or high exposure in two areas, physical and natural disaster risk and low carbon transition risk.

Physical risk relates to hazards caused or exacerbated by acute¹ or chronic² shifts in climate patterns and include exposure to e.g., hurricanes, floods, sea level rise or chronic heat waves.

Transition hazards relate to the financial and operational impacts that may result from society's transition to a low-carbon economy, e.g. policy, market, reputational, technology and supply chain changes that may affect the project.

Physical Risk Exposure:

Pursuant to IFC PS 1 (policies) and 4 (natural disasters, emergency management)

The physical risk screening has been carried out using the coordinates of two industrial facilities in Chile (San Pedro de la Paz and Cabrero). It is worth noting that forest assets have not been considered but that they could be vulnerable to the effects of climate change.

Regarding natural disasters, both sites are highly exposed to earthquakes and the Cabrero plant faces moderate exposure to volcanic activities. San Pedro de la Paz, with its proximity to the coastline, also has high exposure to tsunamis and the chronic climate-related hazard of sea level rise. Regarding other climate-related hazards both sites are exposed to droughts and face moderate to high changes in precipitation patterns towards the end of the century depending on the climate model used. Additionally, the San Pedro de la Paz site faces high exposure to water scarcity towards the end of the century considering a high climate change scenario (RCP 8.5).

The overall exposure to natural disasters and climate risk is hence considered to be high. It is advised that the SEG Officer consider the exposure to verify that the client has assessed the risk and has emergency preparedness and response as well as applicable resilience measures in place.

¹ Acute or rapid onset hazards occur in the short term and have a short duration (e.g. earthquakes, floods, landslides, severe storms, and wildfires).

² Chronic or slow onset hazards take years to develop (e.g. drought, sea level rise (SLR) and pest infestations).

Transition Risk Exposure:

Pursuant to IFC PS 1 (policies) and 3 (GHG emissions)

Chile has various commitments in its NDC related to afforestation and restoration, including recovery of 200,000ha of native forests. Furthermore, Chile has a carbon tax aimed at fossil fuels in place and is considering an emissions trading scheme.

As the project is primarily working capital, the transition risk exposure analysis is conducted at the level of the client. Masisa is a vertically integrated company and consequently can be placed in different industries. For this screening, the tool has been run on the building products & furnishing industry, based on the precautionary principle, as this is the industry in which Masisa could be placed that has the highest transition risk rating.

The industry at large is moderately exposed to transition risk stemming from high energy usage (and subsequent likely significant Scope 2 emissions), product lifecycle environmental impacts and wood supply chain management (potential source of Scope 3 emissions particularly in cases that involve deforestation). Related to the latter, Masisa may mitigate transition risk through company structure and sustainability certifications (FSC and SCS).

In the context of the low-carbon economy, energy and water efficiency measures, further expanding its sustainable products offering, and implementing initiatives to increase the lifespan of its products (carbon sequestration) constitute climate opportunities for this client.

Using this report

This report informs the Environmental and Social Due Diligence (ESDD), depicting which natural hazards and physical climate conditions as well as which risks associated with the low carbon transition the project may be exposed to. It builds the foundation for further analysis by classifying projects into low, moderate, or high exposure for the two respective categories.

*This report **does not** indicate whether a project is vulnerable or has the necessary mitigants in place. Where exposure is high or moderate, further analysis is necessary, pursuant to Level 2 of the Climate Risk Assessment methodology to gauge whether exposure to the identified hazards is critical and whether a project is vulnerable to such hazards.*

The SEG Officer may integrate the findings of this screening report into the Environmental and Social Review Summary (ESRS)), in the relevant sections relating to PS1, PS3, PS4 and PS6³. Actions derived from this screening may be integrated into the Environmental and Social Action Plan (ESAP).

This report is for informative purposes only and IDB Invest assumes no liability as regards to any investment, divestment or retention decision taken by the investor based on this report.

³ When applicable.

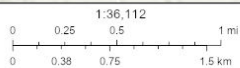
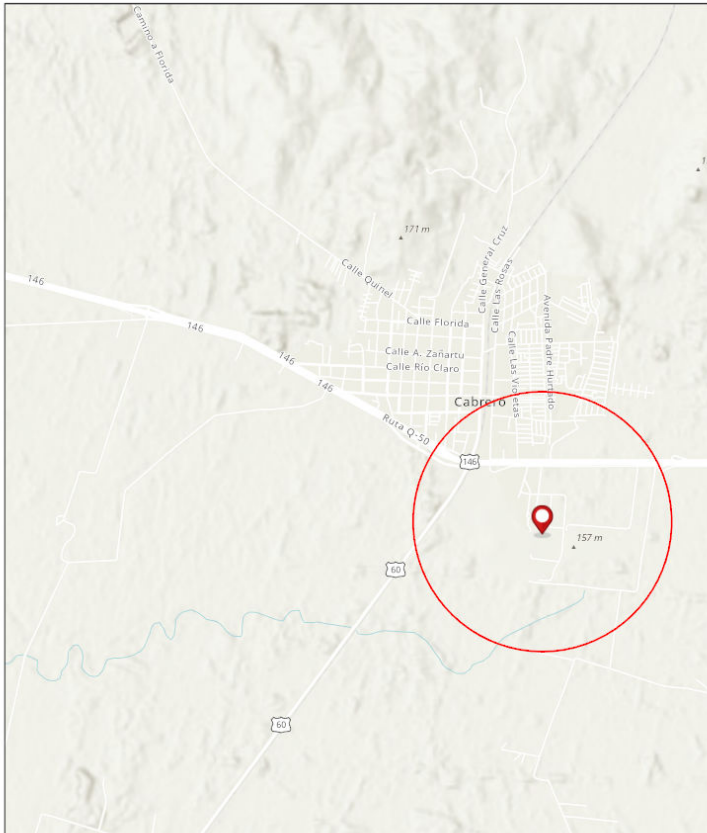


Physical Risk Screening Report - MASISA (Cabrero) (13662-01)

Area of Interest (AOI) Information

Area : 3.14 km²

Sep 28 2021 17:07:30 Eastern Daylight Time



Esri, NASA, NGA, USGS, Esri, HERE, Garmin, METI/NASA, USGS

Summary

Name	Count	Area(km ²)	Length(km)
Landslide	0	0	N/A
Tsunami	0	0	N/A
Drought	1	3.14	N/A
Drought hazard change with climate change	0	0	N/A
Earthquakes	1	3.14	N/A
Heat wave	0	0	N/A
Heat wave end of century (under RCP 4.5)	0	0	N/A
Heat wave end of century (under RCP 8.5)	0	0	N/A
Hurricane storm surge	0	0	N/A
Hurricane wind	0	0	N/A
Precipitation change end of century with CC CGCM3	0	0	N/A
Precipitation change end of century with CC GFDL CM3	1	3.14	N/A
Precipitation change end of century with CC MIROC5	1	3.14	N/A
Precipitation change end of century with CC MIROC ESM CHEM	1	3.14	N/A
Riverine flooding	0	0	N/A
Riverine Flooding end of century with CC	0	0	N/A
Sea level rise	0	0	N/A
Water supply scarcity end of century with CC	0	0	N/A
Volcanic hazard	1	3.14	N/A
Wildfire	0	0	N/A
Water Risk (WRI Aqueduct)	1	3.14	N/A

Drought

#	Hazard	Area(km ²)
1	Moderate	3.14

Earthquakes

#	Hazard	Area(km ²)
1	High	3.14

Precipitation change end of century with CC GFDL CM3

#	risk	Area(km ²)
1	High	3.14

Precipitation change end of century with CC MIROC5

#	risk	Area(km ²)
1	Moderate	3.14

Precipitation change end of century with CC MIROC ESM CHEM

#	risk	Area(km ²)
1	Moderate	3.14

Volcanic hazard

#	risk	Area(km ²)
1	Moderate	3.14

Water Risk (WRI Aqueduct)

#	GU	BasinID	COUNTRY	Water basin name	Water withdrawal
1	16,000	14,121	Chile	BIOBIO	1,608,065,280.00

#	Water consumption	BA	BWS	BWS_s	BWS_cat
1	950,746,112.00	9,247,119,535.36	0.17	1.80	2. Low to medium (10-20%)

#	WSV	WSV_s	WSV_cat	SV	SV_s
1	0.47	1.89	2. Low to medium (0.25-0.5)	1.29	3.88

#	SV_cat	HFO	HFO_s	HFO_cat	DRO
1	4. High (1.0-1.33)	6.00	2.63	3. Medium to high (4-9)	19.26

#	DRO_s	DRO_cat	BT	STOR	STOR_s
1	0.93	1. Low (<20)	9,247,119,535.36	-32,767.00	-32,767.00

#	STOR_cat	GW	GW_s	GW_cat	WRI
1	No major reservoirs	0.09	0.34	1. Low (<1)	0.07

#	WRI_s	WRI_cat	ECO_S	ECO_S_s	ECO_S_cat
1	0.51	1. Low (<10%)	0.06	3.84	4. Low (10-5%)

#	MC	MC_s	MC_cat	ECO_V	ECO_V_s
1	0.00	0.24	1. Low (<0.05%)	0.37	4.06

#	ECO_V_cat	WCG	WCG_s	WCG_cat	DEF_PQUAL
1	5. Extremely high (35-100%)	0.04	1.54	2. Low to medium (2-5%)	1.62

#	DEF_REGREP	W_SEMICO	DEFAULT	W_CONSTR	W_CHEM
1	1.53	1.93	1.72	1.67	1.68

#	W_POWER	W_MINE	W_OILGAS	DEF_PQUANT	Water Agri
1	2.01	1.78	1.22	1.66	1.71

#	W_FOODBV	W_TEX	OWR_cat	Area(km ²)
1	1.67	1.63	Low to medium risk (1-2)	3.14

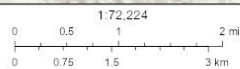
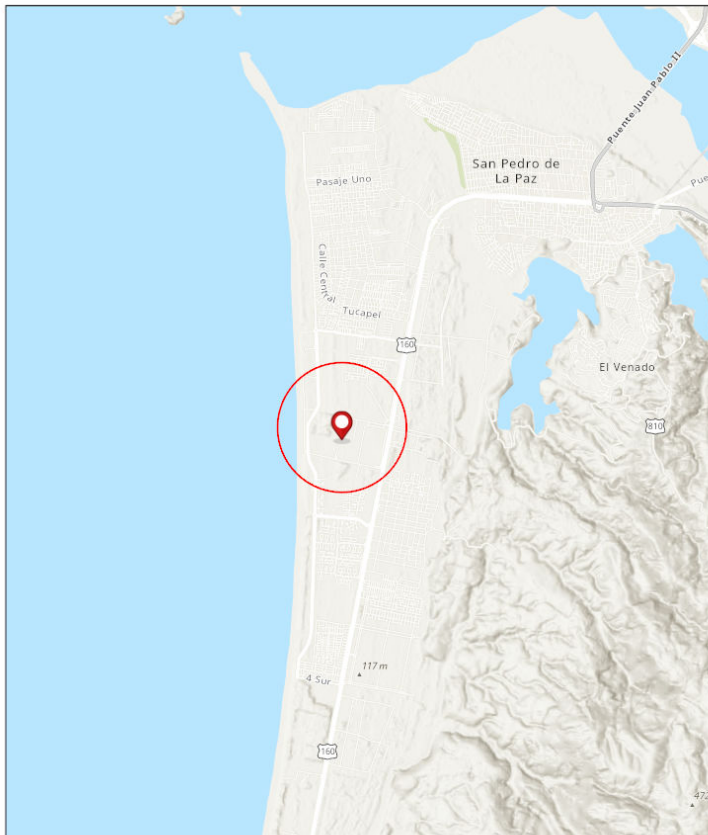


Risk Screening Report -MASISA (San Pedro d. la Paz)(13662-01)

Area of Interest (AOI) Information

Area : 3.14 km²

Sep 28 2021 17:13:57 Eastern Daylight Time



Esri, NASA, NGA, USGS, Esri, HERE, Garmin, METI/NASA, USGS

Summary

Name	Count	Area(km²)	Length(km)
Landslide	0	0	N/A
Tsunami	1	2.63	N/A
Drought	0	0	N/A
Drought hazard change with climate change	1	3.14	N/A
Earthquakes	1	2.63	N/A
Heat wave	0	0	N/A
Heat wave end of century (under RCP 4.5)	0	0	N/A
Heat wave end of century (under RCP 8.5)	0	0	N/A
Hurricane storm surge	0	0	N/A
Hurricane wind	0	0	N/A
Precipitation change end of century with CC CGCM3	0	0	N/A
Precipitation change end of century with CC GFDL CM3	1	2.75	N/A
Precipitation change end of century with CC MIROC5	1	2.75	N/A
Precipitation change end of century with CC MIROC ESM CHEM	1	2.75	N/A
Riverine flooding	0	0	N/A
Riverine Flooding end of century with CC	0	0	N/A
Sea level rise	1	0.44	N/A
Water supply scarcity end of century with CC	1	3.14	N/A
Volcanic hazard	0	0	N/A
Wildfire	0	0	N/A
Water Risk (WRI Aqeduct)	2	2.17	N/A

Tsunami

#	Hazard	Area(km²)
1	High	2.63

Drought hazard change with climate change

#	risk	Area(km²)
1	High	3.14

Earthquakes

#	Hazard	Area(km²)
1	High	2.63

Precipitation change end of century with CC GFDL CM3

#	risk	Area(km²)
1	High	2.75

Precipitation change end of century with CC MIROC5

#	risk	Area(km ²)
1	Moderate	2.75

Precipitation change end of century with CC MIROC ESM CHEM

#	risk	Area(km ²)
1	Moderate	2.75

Sea level rise

#	risk	Area(km ²)
1	High	0.44

Water supply scarcity end of century with CC

#	Risk	Area(km ²)
1	High	3.14

Water Risk (WRI Aqueduct)

#	GU	BasinID	COUNTRY	Water basin name	Water withdrawal
1	947	14,121	Chile	BIOBIO	1,608,065,280.00
2	1,135	14,300	Chile	No Data	25,497,548.00

#	Water consumption	BA	BWS	BWS_s	BWS_cat
1	950,746,112.00	9,247,119,535.36	0.17	1.80	2. Low to medium (10-20%)
2	2,983,872.50	135,801,510.34	0.19	1.91	2. Low to medium (10-20%)

#	WSV	WSV_s	WSV_cat	SV	SV_s
1	0.47	1.89	2. Low to medium (0.25-0.5)	1.29	3.88
2	0.48	1.91	2. Low to medium (0.25-0.5)	1.32	3.96

#	SV_cat	HFO	HFO_s	HFO_cat	DRO
1	4. High (1.0-1.33)	6.00	2.63	3. Medium to high (4-9)	19.26
2	4. High (1.0-1.33)	5.00	2.46	3. Medium to high (4-9)	10.44

#	DRO_s	DRO_cat	BT	STOR	STOR_s
1	0.93	1. Low (<20)	9,247,119,535.36	-32,767.00	-32,767.00
2	0.04	1. Low (<20)	135,801,510.34	-32,767.00	-32,767.00

#	STOR_cat	GW	GW_s	GW_cat	WRI
1	No major reservoirs	-32,767.00	-32,767.00	No data	0.07
2	No major reservoirs	-32,767.00	-32,767.00	No data	0.17

#	WRI_s	WRI_cat	ECO_S	ECO_S_s	ECO_S_cat
1	0.51	1. Low (<10%)	0.06	3.84	4. Low (10-5%)
2	1.73	2. Low to medium (10-20%)	0.01	5.00	5. Extremely low (<5%)

#	MC	MC_s	MC_cat	ECO_V	ECO_V_s
1	0.00	0.24	1. Low (<0.05%)	0.37	4.06
2	0.00	0.24	1. Low (<0.05%)	0.63	4.75

#	ECO_V_cat	WCG	WCG_s	WCG_cat	DEF_PQUAL
1	5. Extremely high (35-100%)	0.04	1.54	2. Low to medium (2-5%)	1.62
2	5. Extremely high (35-100%)	0.04	1.54	2. Low to medium (2-5%)	2.82

#	DEF_REGREP	W_SEMICO	DEFAULT	W_CONSTR	W_CHEM
1	1.53	2.11	1.97	1.95	1.81
2	1.63	2.62	2.12	2.11	1.87

#	W_POWER	W_MINE	W_OILGAS	DEF_PQUANT	Water Agri
1	2.14	2.07	1.52	2.04	1.94
2	2.03	2.17	1.54	1.96	1.96

#	W_FOODBV	W_TEX	OWR_cat	Area(km ²)
1	1.79	1.84	Low to medium risk (1-2)	1.07
2	2.15	2.09	Medium to high risk (2-3)	1.10

TRANSITION RISK ASSESSMENT

ABOUT THE REPORT

Transition risk is defined as the financial risk related to the transition to a low-carbon economy. This report forms part of the first level of the Climate Risk Assessment (CRA) performed by the Social, Environmental and Governance Division (SEG) for direct investments during the environmental and social (E&S) due diligence phase. Here, SEG classifies projects into low, medium or high transition risk^{1,2} and provides information about the general transition risk profile of the project based on key characteristics such as industry and country. As this report is a semi-automated rapid risk profile, not all aspects included in the report may be applicable to the project at hand.

Low-classified projects require no further analysis regarding transition risk and the process concludes.

Medium or high classified projects require further analysis (CRA level two) to assess whether the project is in fact vulnerable to or has the necessary mitigants in place to respond to the gross risk identified, taking into account aspects such as project-level GHG emissions, reduction strategies and technology used.

During the follow-up meeting to the CRA screening, the SEG Officer and the Climate Risk Officer discuss the report and next steps.

1: High exposure means the project is likely to face transition risks. This may be because the project is likely to have a substantial environmental impact or because it is in an industry that is facing a rapid decarbonization or is otherwise exposed as society transition towards low-carbon technologies. Conversely, a low exposure means the project is not likely to face transition risks. This score refers to gross risk and does not incorporate performance indicators of the specific project that is screened.

2: The underlying scoring is available upon request.

READING THE REPORT

The report is split into different sections. In the summary and comments section, the central information about the transition risk profile of the project is presented. This includes the classification, whether further analysis into transition risk is necessary and any comments by the Climate Risk Officer.

The subsequent sections may be read to obtain more detailed indicators and information about the transition risk profile of the industry, country and supply chain.

TRANSITION RISK REPORT


SUMMARY

Project Data	Transition Risk Classification
Name	Medium - further analysis necessary
Number	
Sector	
Industry	
Country	
Does the project directly contribute to the decarbonization process?	
	No


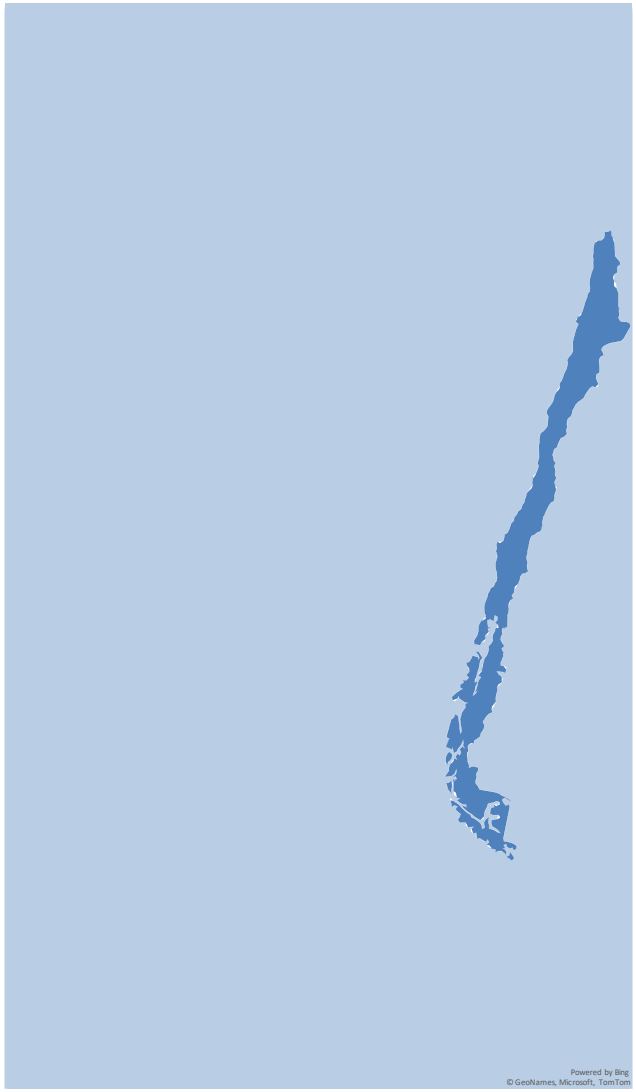
COMMENTS FROM SEG CLIMATE RISK OFFICER


Comments	Climate Opportunities
<p>Note 1: As the project is primarily working capital, the transition risk exposure analysis is conducted at the level of the client.</p> <p>Note 2: Masisa is a vertically integrated company and consequently can be placed in different industries. For this screening, the tool has been run on the building products & furnishing industry, based on the precautionary principle, as this is the industry in which Masisa could be placed that has the highest transition risk rating.</p> <p>This industry is moderately exposed to transition risk stemming from high energy usage (and subsequent likely significant scope 2 emissions), product lifecycle environmental impacts and wood supply chain management (potential source of scope 3 emissions particularly in cases that involve deforestation). Related to the latter, Masisa mitigates its transition risk through its company structure and through its sustainability certifications (FSC and SCS).</p>	<p>In the context of the low-carbon economy, energy and water efficiency measures, further expanding its sustainable products offering, and implementing initiatives to increase the life-span of its products (carbon sequestration) constitute climate opportunities for this client.</p>

COUNTRY TRANSITION RISK PROFILE


	Chile	This section presents the country profile based on five areas that may influence how rapidly and smoothly the country may transition based on macroeconomic indicators. This information may or may not be applicable to the project but provides macroeconomic data-driven insights into the country context of the project.
Indicator	Description	Rank of 26 countries in Latin America and the Caribbean (higher rank has higher risk exposure)
Economic Carbon Intensity	How embedded is carbon in the economic activity of a country? This is measured by looking at a country's share of alternative and nuclear energy and its CO2e emissions relative to its population and size of economy. A higher economic carbon intensity increases the exposure to transition risks for projects as the scope of the country's decarbonization task increases. In turn, the uncertainty level of the regulatory environment in the country increases.	12 out of 26
Pace of Decarbonization	What is the pace of the decarbonization process in the country? This is measured by looking at the change in alternative energy and in CO2e emissions relative to size of economy and population size during the past ten years. A higher pace indicates that the immediate future will be more uncertain for projects that has a significant environmental impact. Therefore, transition risks increase.	22 out of 26
Fossil Fuel Dependence	How dependent is a country on fossil fuels? This is measured by looking at the total rents from natural resources and the level of fossil fuels in exports. A high dependency increase exposure to transition risks as the country face a more large-scale transition.	8 out of 26


Climate Transition Readiness	How is the country placed to decarbonize its economy and respond to the risks of climate change? This is measured by looking at its institutional and infrastructure strength, i.e., its ability to convert policy into action, and by considering the vulnerability of the country to the negative impacts of climate change.	5 out of 26
Climate Finance Ability	To what extent is the country likely to have the funds available to address climate change? This is measured by looking at the size of the economy, its public debt and the ability of companies to take on loans. A high-ranking country is more likely to be able to carry out a speedier decarbonization of the economy. In turn, the level of uncertainty for a project in the country increases and so does exposure to transition risks.	1 out of 26

 Nationally Determined Contribution (NDC) to the Paris Agreement		<i>This section summarizes the latest version of the country's NDC and where applicable, its Long Term Strategy (LTS). This information may or may not be relevant for the project but serves as an insight into the country's commitments to the Paris Agreement.</i>	
NDC Submission Date	04/09/2020		
Summary	<p>Chile commits to a GHG emission budget not exceeding 1,100 MtCO₂eq between 2020 and 2030, with a GHG emissions maximum (peak) by 2025, and a GHG emissions level of 95 MtCO₂eq by 2030. This is an intermediate point on the road to carbon neutrality by 2050, which we have established in the Draft Framework Law on Climate Change that is currently under discussion in the National Congress of Chile.</p> <p>The NDC also includes a target to "Reduce total black carbon emissions by at least 25% by 2030, with respect to 2016 levels."</p>		
Target Year(s)/Period	2030		
Non-GHG Target Type	Multiple non-GHG targets		
Non-GHG Target	<p>Chile commits to the sustainable management and recovery of 200,000 hectares of native forests, representing GHG captures of around 0.9 to 1.2 MtCO₂eq annually by 2030. Chile commits to afforest 200,000 hectares, of which at least 100,000 hectares will comprise permanent forest cover, with at least 70,000 hectares of native species. By 2025, protect at least 20 coastal wetlands as new protected areas. By 2030, protect at least 10 additional coastal wetlands as protected areas. By 2030, protect at least 10% of under-represented marine eco-regions (Humboldt, Central Chile, Araucania and Chiloe), in the framework of a participatory marine spatial planning, based on science and holding criteria to deal with the effects of climate change. By 2030: 100% of marine protected areas created between 2020 and 2025 will have management or administration plans including actions for adaptation to climate change. By 2030, 95% of Rural Health Systems will be inspected and registered, ensuring the quality standards of rural drinking water. By 2030, 100% of companies in the health sector will have implemented disaster risk management plans, including consideration of risks resulting from climate change. By 2030, non-treated sewage will be reduced by at least 25%.</p> <p>By 2025: 100% of marine protected areas created up to 2020 will hold management or administration plans including actions for adaptation to climate change. By 2025: Management or administration plans of at least 40% of the marine protected areas created before 2020 will be implemented at least through monitoring, control, community involvement and threat control programs.</p>		
Long-Term Target	No long-term target		
Sectors covered	Energy, industrial processes, use of solvents and other products, agriculture and waste. It does not include the LULUCF sector.		

 Carbon Pricing Mechanisms		<i>This section describes any carbon pricing schemes that are under consideration or already implemented in the country. This serves to provide information about the regulatory environment in the country of the project.</i>	
Type	Status	Description of Initiative	Recent Developments

Emissions Trading System	Under consideration	The implementation of the Chile carbon tax and a monitoring, reporting and verification system is designed to be ETS compatible to facilitate the possible implementation of an ETS in the future.	The government is working on a Framework Law on Climate Change that sets a carbon neutrality goal for 2050. The draft law includes provisions for a possible trading system. Regulated entities could reduce their emissions below limits fixed by the regulator or implement emission reduction projects that meet certain standards to earn credits. These credits could then be sold to other regulated entities to use for compliance. The government could also allow these entities to implement mitigation projects and use the certified reductions to either achieve the standard or transfer those reductions to third parties. A dedicated registry would track the projects and the transfers. The draft law is still in legislative process after it was submitted to Congress in January 2020.
Carbon Tax	Implemented	The Chile carbon tax is a part of the tax on air emissions from contaminating compounds (impuesto destinado a gravar las emisiones al aire de compuestos contaminantes) and aims to reduce the negative impacts of fossil fuel use for the environment and public health. The tax is part of wider tax reforms to increase taxes for big businesses and lowering them for individuals.	On February 24, 2020, amendments to the carbon tax were adopted as part of a broader tax reform. The carbon tax now applies to installations emitting 25,000 tCO2 or more, as well as to those that release more than 100 tons of particulate matter into the air each year. Under the previous legislation, installations with a thermal capacity higher than 50 megawatts were subjected to the tax. The amendments also introduced the possibility to use offsets to meet compliance obligations, for which the rules still have to be established. The carbon tax rate remains at US\$5/tCO2.

INDUSTRY TRANSITION RISK PROFILE				
Building Products & Furnishings		<div>This section highlights:</div> <div>A) If GHG emissions (Scope 1 -3), crucial drivers of transition risk, are a material issue for the industry.</div> <div>B) The percentage of the country's emissions the sector accounts for and how that compares to the same sector in other countries in the region.</div> <div>C) What are the climate issues that are likely to be material for actors in this industry.</div>		
Greenhouse Gas (GHG) Emissions				
Scope 1: Are companies in the industry likely to emit a high level of CO2e?		No		
Scope 2: Are companies in the industry likely to have high energy use?		Yes		
Scope 3: Are companies in the industry likely to contribute to indirect emissions up or down the value chain?		Yes		
If applicable, where are scope 3 emissions likely to be concentrated?		Internet Media & Services		
Sector Size of	Industrial Processes	NB: This data is only available at the general sector level		
What percentage of the country's CO2e emissions does the sector account for?	4%	How does this percentage level rank the sector relative to the same sector in other countries in Latin America and Caribbean (1-26 - highest to lowest)? 21		
SASB Industry Climate Issues				
Energy Management in Manufacturing	Product Lifecycle Environmental Impacts	Wood Supply Chain Management		
SASB Industry Climate Issues: climate topics in each industry that are likely to affect the financial condition or operating performance of actors within the industry and: 1) pose direct financial risks, 2) may be regulated in the near future, 3) are becoming industry norms and drive competitive best practices and 4) are raised by stakeholders and threaten brands or license to operate. The information is derived from the Sustainability Accounting Standards Board (SASB).				

	Industry Information	This section describes the transition risk profile of the industry in more detail. It points towards areas of further analysis that may be relevant for the project.
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Supply Chain Decarbonization	
	Supply Chain: Not applicable Based on analysis by the World Economic Forum and the Boston Consulting Group (2021), this section provides information about the distribution of emissions along the supply chain. This information may be used to assess the potential for mitigation in the project's supply chain.

