Vasakronan

TCFD 2022

Climate Report according to the TCFD

Below is a report of Vasakronan's climate-related financial risks and opportunities. The report was prepared according to guidelines from the Task Force on Climate-related Financial Disclosures (TCFD) and is based on governance, strategy, risk management, measured values and goals.

Task Force on Climate-related Financial Disclosures (TCFD) is a framework that helps organisations map, prevent, and account for their climate-related financial risks. The aim is to provide insight into the future financial implications for the organisation from climate change. The framework is thus based on the climate's impact on the company, rather than the company's effect on the climate.

Since 2017, Vasakronan has described its climate work based on the TCFD recommendations. The ambition is to follow them to the greatest extent possible. The aim is primarily to provide investors with information about the risks and possibilities that a transition to a society with lower carbon emissions entails. The intent is also to provide a description for stakeholders of how operations will be affected by climate issues. The descriptions are categorised into four areas: governance, strategy and risk management as well as key metrics and targets.

Background

Vasakronan realised over ten years ago that the business needed to adapt and take more consideration for the environment and climate. Through enhancing energy efficiency in various ways, and the transition to renewable energy sources, Vasakronan has reduced its direct greenhouse gas emissions from energy by close to 90% since 2006. In 2008, Vasakronan began to compensate annually for remaining emissions and, as such, Vasakronan became climate neutral in terms of direct and indirect emissions in regard to energy consumption. In 2019, the ambition level was raised when Vasakronan decided that the company would be climate neutral across the entire value chain by no later than 2030.

For Vasakronan, the commercial benefits of reducing climate impact are clear, and there is no conflict between profitability and sustainability. On the contrary, Vasakronan can see that initiatives to reduce climate impact have been a success factor that have driven and answered a market demand for climate-smart solutions. The reduction in energy consumption has also led to considerable improvements in net operating income, increased property values and an overall improvement in profitability. But in addition to reducing its own impact on the climate, Vasakronan also adapts its operations to withstand climate change.

Governance

Stringent requirements from Vasakronan's owners (the First through Fourth Swedish national pension funds) mean that the return must be long-term stable and generated with consideration for people, the environment and society, and where climate-related issues are integrated in operations. Progress is reported to owners through owner representatives on the Board of Directors as well as through ongoing dialogues with the sustainability departments at each Swedish national pension fund.

Vasakronan develops an annual strategic plan subject to adoption by the Board. The plan includes a description of the sustainability strategy that is expected to form the basis for the operations and the long- and short-term environmental targets. A review of the company's work to reduce the operational impact on the climate and to adapt operations to climate changes is also conducted at least once a year with the Board of Directors. Twice a year, the Board also receives a sustainability report that, among other things, describes climate mitigation initiatives and adaptation progress.

Responsibility for daily cliamte-related operations, such as planning, governance and monitoring follows the organisational structure, with a clear delegation of responsibilities and authorisations. Climate issues are included as part of the business plans developed for the underlying units as well as for the company as an entirety. The plans include the targets set for both the short and the long term. The targets are monitored on a quarterly basis by the management team and the Board of Directors.

The increasing importance of climate issues in investment decisions means that the Chief Sustainability Officer is a member of the Investment and Financial Board.

Strategy

Vasakronan is a long-term actor. It is therefore important that the company's strategy also monitors areas that have a significant effect in the long run, including the climate. Vasakronan's sustainability strategy is part of the company's strategic plan. This means that operations are to be conducted sustainably and that Vasakronan's sustainability ambitions are to influence all decisions in the company. The sustainability strategy also entails that the company continues to set ambitious climate targets that affect the decisions taken across the entire value chain and regular adaptation of the existing property portfolio based on assessments of coming climate changes.

In Sweden, climate work is regulated by the Climate Act which entered force in 2018. The overriding goal is for green-

Triangeln in Malmö is one of a number of properties during the year that underwent recertification, which resulted in higher classifications due to the effect of implemented energy saving measures. A total of slightly more than 90 of Vasakronan's properties have been recertified.

house gas emissions in Sweden to be zero by 2045 at the latest. Vasakronan believes that its own operations can develop quicker than this and has therefore decided that the company is to be climate neutral across the entire value chain by no later than 2030. Reaching climate neutrality across the entire value chain requires primarily that emissions related to construction and tenant use of premises are drastically reduced. To ensure that operations are moving in the right direction, ambitious short- and long-term environmental targets are set annually in the areas that generate emissions, such as energy consumption and use of construction material. For more information about our climate targets, refer to pages 65–66 in the annual report.

To ensure that efforts to reduce climate impact are sufficient and in line with the requirements specified by the Paris Agreement's goal to limit global warming to two degrees, Vasakronan has engaged the SBTi to evaluate the climate targets. The SBTi is a collaboration between the World Wide Fund for Nature, the United Nations Global Compact, the Carbon Disclosure Project and the World Resources Institute. The goal is to ensure that companies' climate targets have a scientific basis. In December 2018, Vasakronan's climate targets were approved by the SBTi, with the comment that they were well under those of the Paris Agreement. The climate target Vasakronan had evaluated by SBTi was older and somewhat less ambitious than the current target of climate neutrality across the entire value chain.

Risk management

Efforts to identify, analyse, manage and follow up climate risks are prioritised at Vasakronan. The work is monitored as part of the company's annual risk assessment, and involves all units in the company and follows a structured process. The process starts with an inventory of existing and new risks. This includes conducting workshops and interviews with representatives from various parts of the organisation. Thereafter, the Management Team assesses the risks included in the inventory based on likelihood and impact. Material risks are then presented to the Audit Committee and the Board.

According to the TCFD's recommendations, climate-related financial risks can be divided in two primary categories: transition risks and physical risks. Transition risks refers to the political, regulatory, market and technological risks that a transition to a society with lower carbon emissions can entail. Physical risks refer to the risks that occur as a consequence of the changing climate, such as increased precipitation or rising sea levels. They can be acute or chronic and include direct damage to assets or indirect damage within operations, for example interruptions to the supply chain. For information about Vasakronan's risk management and climate-related risks, see pages 83–90 in the annual report as well as the "Transition risks" and "Physical risks" on page 4 and the table on pages 6-8 in this report.

Scenario analysis

Climate scenarios help us understand what our climate will look like in the future and how it will be affected by global aspects like politics, technology, the economy and changes in society. Transition risks and physical risks can be identified, and future strategy adapted by analysing the possible effects different climate scenarios would have on operations. This means preparing operations for financial, legislative and social development with low carbon emissions. It also entails preparing for the physical effect of a changed climate on properties as well as on tenants' and suppliers' operations.

Vasakronan's ambition is to update the scenario analysis every five years. The most recent one was conducted in 2019, in which Vasakronan investigated how operations would be affected up until 2100 with climate scenarios based on an RCP[1] of 2.6, 4.5 and 8.5. Representative Concentration Pathways (RCPs) describe scientists' projections of how and by how much our climate might change in the future, based on a number of scenarios with varying degrees of human impact. An RCP of 2.6 represents a strong climate policy with significantly reduced emissions, negative emissions by 2100 and a global temperature increase of 0.5–1.5 degrees Celsius. An RCP of 8.5 represents instead a weak climate policy, continued high emissions and a global temperature increase of 3.5–5.0 degrees Celsius. The analysis findings identified the following risks and opportunities.

1) RCP = representative concentration pathway for radiative forcing expressed in W/sq. m. High levels of greenhouse gasses lead to high levels of radiative forcing.

Transition risks

Vasakronan identified climate change as an important operating environment factor as early as ten years ago. Accordingly, comprehensive efforts have already been made to reduce many transition risks. For example, the company has significantly reduced its energy consumption and carbon emissions from property management. Efforts to reduce emissions from construction began a few years ago, and include greater use of wood and reused materials. Despite comprehensive efforts to reduce transition risks, there is always a certain risk that operations might be affected, which pertains primarily to regulatory and market transition risks. Increased taxes and other energy and emissions regulations would mean higher costs and affect the company's profitability. For more information about identified transition risks, refer to page 6.

Physical risks

The physical risks identified for Vasakronan's property portfolio are rising sea levels, flooding, a more humid climate with more heat waves and more precipitation. When the climate becomes warmer and more humid, properties must still provide a comfortable indoor environment as well as avoid flooding during extreme precipitation. Vasakronan therefore continuously evaluates properties in terms of technical performance and improvements are planned in conjunction with regular maintenance and renovations. Development projects ensure that the design and planning of properties takes into account the needs of today and of the coming decades.

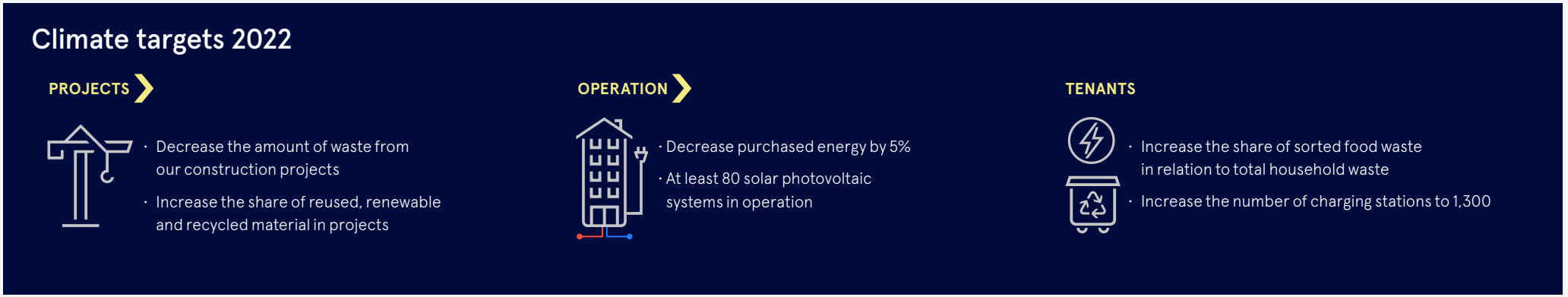
In the lower temperature scenarios, the operations are not assessed as being impacted by any immediate risks that cannot be managed. Vasakronan's long-standing focus on implementing and planning future adaptation measures likely means that the operations will continue to develop positively despite climate changes.

In the scenario with the higher temperature intervals, however, there are tangible risks that would have significant financial effects. Vasakronan has therefore taken actions including investigating the risk of permanent flooding across the entire property portfolio due to rising sea levels. Flooding risks due to extreme precipitation and proximity to watercourses were also analysed. The findings indicated that none of the properties were deemed at risk of permanent flooding up until 2100.

In 2022, work was conducted on breaking down all physical climate risks by individual property. The results of the deeper analysis are now being integrated property by property into the different processes of operations, maintenance and property management as well as in projects and property portfolio planning.

Even if the risk of expensive repairs can be reduced through various measures, there is still a risk for reduced demand and willingness to pay among tenants. This can occur if properties or related infrastructure, such as roads to and from properties, become unusable multiple times after extreme weather events. That is why it is important to implement physical adaptations not only in the properties but the surrounding environment as well. Achieving this requires collaboration with property owners and/or municipalities.

The risk for unexpected events increases dramatically in the higher temperature intervals. There are also risks for significant indirect impacts on Vasakronan's operations. These include an increased number of global conflicts, increased migration and shortages of food and raw materials that would



The image above shows the environmental targets for 2022. Read more about targets and target fulfilment on pages 65–66.

lead to a great deal of economic turbulence. This, in turn, has a negative effect on Vasakronan, our customers and our suppliers. These risks need to be recognised, but Vasakronan cannot reduce them alone and, accordingly, these risks are not presented in more detail in this report. See more information about the physical risks identified in the table on page 7.

Opportunities

The transition to a low carbon dioxide society can also entail opportunities for operations. Using exclusively renewable energy, increasing the share of on-site produced electricity and improving energy efficiency reduces greenhouse gas emissions and operating expenses. Project development entails an increased focus on material use and on increasing material recycling as well as reduced material costs. An increased focus on waste management will also have positive financial effects.

The measures that have been carried out so far to reduce climate impact have also had a clear contribution to profitability. The work has led to decreased energy costs and higher revenue due to increased demand in the lettings market. This has also entailed higher property values due to lower requirements for yields for buildings with low climate impact and lower financing costs. For the long term, the assessment is that demand for resilient buildings with a low carbon footprint will continue to increase and that Vasakronan's property portfolio can meet these expectations. See more information about the physical opportunities identified in the table on page 8.

Goals and measurements

A summary of Vasakronan's greenhouse gas emissions from 2018 to 2022 can be found in the sustainability disclosures 305-1 to 305-3 on page 164 in the annual report. A description of the environmental targets set for 2022 can be found on pages 65–66 in the annual report.

The table on pages 6–8 in this report shows the financial impact the identified risks and opportunities could have on the income statement and balance sheet. We followed the TCFD's recommendations for Table 5 as far as possible. For more information about how we measure, steer and monitor environmental data, see pages 155–171 in the annual report.

TCFD table of climate risks, opportunities and financial impact

Risk/opportunity	Financial category	Unit of measure	Financial impact	Reference in annual report
TRANSITION RISKS				
Higher energy costs due to raised taxes or other regulation. (*Regulatory transition risks*)	Costs	The effect on energy costs and operating surplus if energy prices increase SEK 2/kWh. Calculated based on consumption in 2022. Expressed in GWh, SEK m and percentage of operating surplus.	Total energy consumption (heating, cooling and property electricity) in the property portfolio amounted to 216 GWh (238), equivalent to approximately SEK 356 million (295). A price increase of SEK 2/kWh would entail an increased energy cost of SEK 432 million (476), the equivalent of 7% (9) of the operating surplus for 2022.	GRI 302-1, pages 157–158
	Assets /liabilities	Investment in low-carbon alternatives. Expressed in SEK m/year.	In 2022, approximately SEK 83.7 million (65) was invested in low-carbon alternatives to reduce energy consumption in the property portfolio.	–
Higher costs due to raised taxes or other emissions regulations. (*Regulatory transition risks*)	Costs	Increased costs based on a SEK 1,000/ton price for scope 1 and 2 emissions, market-based and location-based. Estimate is based on the assumption that the entire cost will be charged to the buyer. Expressed in SEK m and percentage of operating surplus.	A SEK 1,000/ton price increase for scope 1 and 2 emissions calculated using the market-based method would increase costs SEK 5 million (5), the equivalent of 0.09% (0.09) of the operating surplus for 2022. Using the location-based method, the equivalent costs would increase SEK 14 million (15), representing 0.24% (0.27) of the operating surplus.	GRI 305, pages 161–166
	Costs	Increased construction material costs of SEK 1,000/ton on emissions from construction material. Estimate is based on the assumption that the entire cost of emissions for the material will be charged to the buyer. Expressed in SEK m and percentage of total project expenses for the year.	A price increase for scope 3 emissions from construction material would increase costs SEK 57 million (24), the equivalent of 0.9% (0.6) of total project expenses for 2022.	GRI 305, pages 161–166
	Costs	Climate compensation paid, expressed in KSEK/year.	From 2020, Vasakronan compensates for all reported emissions from operations. One third of the emissions generated in 2021 were compensated by purchasing SEK 960,000 in shares in compensation projects. The remaining portion will be compensated through planting trees and contributions to research and development projects that lead to reduced emissions in the property sector.	GRI 305, pages 161–166

Risk/opportunity	Financial category	Unit of measure	Financial impact	Reference in annual report
PHYSICAL RISKS				
Properties will become permanently unusable due to rising sea levels. (*Systematic physical risk*)	Assets	The share of properties in areas with heightened risks for permanently rising sea levels.	A survey of the property portfolio was carried out in 2020 that included rising sea levels. The result indicated that none of the properties are at risk of flooding up until 2100. Therefore the assessment is that there is no risk of any major financial impact from permanently higher sea levels.	TCFD report, page 4 in this report
Properties becoming temporarily unusable due to increased precipitation or other temporary flooding. *(Acute physical risk)*	Income	Estimated loss in income in the form of rent reductions due to properties becoming temporarily unusable, such as during ongoing flooding and subsequent repair work. Based on the assumption that one per cent of the property portfolio is damaged annually and that it leads to, on average, three months of lost income in the affected property portfolio. Expressed in SEK m and percentage of operating surplus.	Assuming that one per cent of the property portfolio will be temporarily unusable and need to be repaired, the maintenance costs would increase SEK 20 million (19) per year, the equivalent of 0.3% (0.3) of the operating surplus.	TCFD report, page 4 in this report
	Costs	Estimated increase in maintenance costs due to properties becoming temporarily unusable and in need of repairs on an annual basis. Assuming that one per cent of the property portfolio is damaged and that it would cost SEK 3,000/sq. m. to repair. Expressed in SEK m and percentage of operating surplus.	Assuming that one per cent of the property portfolio will be temporarily unusable and need to be repaired, the maintenance costs would increase SEK 72 million (70) per year, the equivalent of 1.2% (1.3) of the operating surplus.	TCFD report, page 4 in this report
Increased energy needs (primarily cooling) due to a warmer climate. (*Systematic physical risk*)	Costs	Estimated cost increase of a 100% increase in cooling needs. The estimate is based on the outcome for cooling needs for 2019, since the outcome for 2021 was not deemed representative due to the Covid-19 pandemic. Expressed in SEK m and percentage of operating surplus.	The impact of a 100% increase in cooling needs entails increased costs of SEK 25 million (29), the equivalent of 0.4% (0.5) of the operating surplus.	GRI 302-1, pages 157–158
Higher water costs due to greater investment needs in water and sewage networks. (*Systematic physical risk*)	Costs	The estimated effect of a 100% price increase for water on costs. Expressed in SEK m^3/year and percentage of operating surplus.	Total water consumption the property portfolio amounted to 968,502 m^3 (827,138). A doubling of the price of water would entail an increase in water costs of approximately SEK 22 million (19), equivalent to 0.4% (0.3) of the operating surplus.	GRI 303-5, page 159

Risk/opportunity	Financial category	Unit of measure	Financial impact	Reference in annual report
OPPORTUNITIES				
Increased own production of renewable energy.	Income	Income from sales of on-site produced renewable energy. Expressed in SEK m/year.	Income from sales of on-site produced renewable energy from solar photovoltaics amounted to SEK 2.0 million (1.7), equivalent to 0.0% (0.0) of operating surplus.	GRI 302-1, pages 157–158
	Costs	Lower energy costs due to on-site produced renewable energy. Expressed in MWh and SEK m/year.	On-site produced energy in the property portfolio reduced the need for purchased energy by an estimated 4,700 MWh (4,000), the equivalent of cost savings of approximately SEK 5 million (4), the equivalent of 0.08% (0.07) of the operating surplus.	GRI 302-1, pages 157–158
	Assets/liabilities	Investments in increasing on-site produced renewable energy. Expressed in SEK m/year.	SEK 6.8 million (7.6) was invested in solar photovoltaics and solar parks during the year.	–
Higher revenue from sustainable/certified properties	Income	Estimated increase in revenue assuming higher repurchase rates, higher occupancy rates and higher rent levels from environmentally certified properties. Based on an assumption of a 5–15% increase in rental revenue. Expressed in SEK m and percentage of total rental revenue and operating surplus, respectively.	Rental revenue from environmentally certified properties amounted to SEK 7,610 million (6,848), representing approximately 93% (92) of the total rental revenue. A 5–15% increase in rental revenue would be equivalent to an increase of approximately SEK 381–1,142 million (342–1,027). This is the equivalent of 6–19% (6–19) of the operating surplus.	GRI CRE8, page 170
	Costs	Cost of environmental certification of new construction and renovations in relation to total investments. Expressed in %.	In 2022, new construction and redevelopment of Kronan was certified. The cost of certification corresponded to 0.02% of the total investment.	GRI CRE8, page 170
Higher valuations for environmentally certified properties.	Assets	Market value for environmentally certified properties in relation to market value for the entire property portfolio. Expressed in SEK m and percentage of total market value on the closing date.	At the end of 2022, properties with a total market value of SEK 171,090 million (162,844) were environmentally certified, reflecting 91% (90) of the total market value of the property portfolio.	GRI CRE8, page 170
Lower material costs in construction projects due to increased share of reused material.	Costs	Estimated cost savings due to increased share of recycled material in construction projects, based on the assumption that material costs stand for 55% of the project expenses, a maximum re-use potential of 50% and that reused material costs 25–50% less than new material. Expressed in SEK m.	In 2022, the cost for material with re-use potential in finished projects was SEK 1,707 million (1,216). An increased reuse of materials in these construction projects would have an effect of approximately SEK 400–900 million (300–600), corresponding to 7–14% (7–14) of project expenses.	GRI 301-1, pages 155–156
Favourable financing for green assets	Costs	Lower interest expense due to financing through the Green Finance Framework.	It is currently difficult to estimate how much lower interest expenses are with financing through our green framework, but our assessment is that it leads to better access to financing and significantly lower interest expenses.	Impact Report, pages 180–187
	Assets	Assets that meet the criteria in the green framework. Expressed in SEK m and percentage of total assets.	At the end of 2022, assets in the green pool totalled SEK 61,241 million (53,421), equivalent to 29% (27) of total assets.	Impact Report, pages 180–187
	Liabilities	Total green bonds outstanding and other green debt instruments. Expressed in SEK billion.	At the end of 2022, the volume outstanding of green bonds and other green debt instruments totalled SEK 49.7 billion (48.1).	Impact Report, pages 180–187

Vasakronan

VASAKRONAN AB
Box 30074, SE-104 25 Stockholm
Street address: Malmskillnadsgatan 36
Tel. +46 8 566 20 500

WEBSITE www.vasakronan.se
CORP. REG. NO. 556061-4603