



Landshypotek Bank

Impact report:

Green Bonds

17 may 2025

This report has been prepared within Landshypotek Bank's
Green Bond Framework published 24 April 2018. This is the seventh report in the series.
Stockholm, 17 May 2025

Johan Ericson
Chief Executive Officer

Martin Kihlberg
Chief Sustainability Officer

Summary

Impact Report in Brief

Green Bond Framework: Published in April 2018 in accordance with the Green Bond Principles from the International Capital Market Association from 2017.

Second Opinion: Provided by CICERO (Center for International Climate and Environmental Research-Oslo) in 2018. The Green Bond Framework has been awarded the highest possible grade, "Dark Green". Green Bond Framework and Second Opinion are available on landshypotek.se.

Financed projects: Approximately 2,670 forest properties

Impact from financed projects: 2,5 million tons CO₂

Impact per invested million SEK: 220 tons CO₂

Distribution of forest properties

The northernmost forest property is located in **Pajala municipality** (approximately 100 km north of the Arctic Circle)

The municipality with the largest forest property in the Green Asset Pool: **Uppsala**

The southernmost forest property is located in **Tomelilla municipality**

The municipality with the most forest properties: **Växjö**

Largest forest property

**16 240
hectares**

Average area

**201
hectares**

Number of forest properties

2 670

Number of municipalities with forest properties represented in the Green Asset Pool:

238 of 291



Issued bonds

Issue date: 18 Nov 2019 (3 billion) / 18 Nov 2020 (2.5 billion)

Duration: 6 years

Nominal amount: SEK 5.5 billion

Maturity date: 18 Nov 2025

Type of bond: covered bond

Coupon rate: 0.615 %

ISIN: SE0011870021

Issue date: 25 Apr 2023

Duration: 5 years

Nominal amount: SEK 6 billion

Maturity date: 25 Apr 2028

Type of bond: covered bond

Coupon rate: 3.60 %

ISIN: SE0015810965

Forest terminology

BEF (Biomass Expansion Factor) =

Conversion multiple for finding the total dry biomass.

Site quality = The land's natural capacity to produce timber. Expressed in m³ob/ha/year.

Carbon Fraction (CF) = Carbon content of dry wood.

FSC = Forest Stewardship Council

PEFC = Programme for the Endorsement of Forest Certification

Volume over bark (m³ob) = This metric shows the forest stand's wood volume and includes the entire trunk above the normal stump height. Branches, stumps and roots are excluded.

The carbon dioxide effect = Through this green bond there are two carbon dioxide effects – absorption and avoidance. As the forest grows, carbon dioxide is stored and absorbed in the tree and the amount of carbon dioxide is reduced from the atmosphere. When harvesting forest and when forest raw materials are replacing other material the carbon dioxide emissions are reduced and carbon dioxide emissions are avoided and stored through substitution.

Net change in growing stock = The change in the standing growing stock measured in m³ob, that is growth less harvesting.

A word from our Chief Sustainability Officer

Landshypotek Bank has the pleasure of publishing our seventh impact report. We look back on a year that has been largely characterised by geopolitical unrest and turbulent economic times. Competitiveness, defence and trade tariffs have been high on the political agenda. In addition to these geopolitical challenges, climate change is hitting us with increasing force as 2024 was the warmest year to date. In the beginning of 2025, we received unfortunate news that 2024 was the warmest year on record and the effects of climate change are hitting us with even greater force. Despite the turbulence in the world, Swedish forests are growing and absorbing carbon dioxide. 2024 was, on the whole, a favorable year for Swedish forest owners with continued strong demand for timber and pulp. Timber prices have been high which, combined with falling interest rates, has contributed to increased profitability for forest owners.

The strong demand for biogenic raw materials comes at a time of great uncertainty on many fronts. The war in Ukraine continues and the political debate in Sweden is increasingly focusing on the country's defence. Being able to use the forest thus becomes an important part of the country's self-sufficiency in biogenic raw materials in uncertain times.

On the regulatory front, there has been a noticeable change of course from the EU. In recent years, the EU has adopted several pieces of legislation that affect forests in Sweden. The EU has chosen to postpone – or revise – certain pieces of regulation, including those relating to sustainability reporting. At the same time, the EU has chosen not to make changes to other important regulations, such as the Nature Restoration Regulation or the Regulation on Land Use Emissions and Removals (the so-called LULUCF Regulation).

The LULUCF Regulation contains a legally binding target for how much carbon dioxide Swedish forests should absorb by 2030. 2030 is just around the corner from a forest perspective, and expert authorities have noted slower growth rates and a reduced carbon dioxide uptake in recent years in Swedish forests. This is, in part, due to weather conditions and damage caused by insects and



other pests. Moreover, the declining carbon sink in Sweden is also due to a change in the method to calculate the amount of carbon dioxide absorbed in the growing forest. Reduced harvesting until 2030 has been discussed as a possible measure to improve the uptake of carbon dioxide in the Swedish forests. This creates uncertainty for the country's family forest owners, which could affect both the income from future logging and the value of forest properties.

The perspective of the family forest owner is something that the bank values highly. In this year's report, we revisit four talented forest owners who, based on their place on earth and their conditions, create value in the forest: for the public, for the forest industry and for nature every day, all year round.

In 2024, the board of directors of Landshypotek Bank adopted a climate transition plan that describes how the bank will work together with its customers in the climate transition. In the transition plan, the bank sets the goal of increasing the issued volume of green bonds to 30% by 2030 from the current level of approximately 13%. To achieve this goal, the bank has initiated a process to update our green framework with the aim of financing more green investments in Swedish agriculture and forestry. We look forward to presenting the updated framework to investors in 2025.

Martin Kihlberg
Chief Sustainability Officer

For forests since 1836

Landshypotek has financed Swedish forestry since 1836. The bank is owned by Landshypotek Ekonomisk Förening, in which all of the Bank's loan customers in the farming and forestry sector are members, and thereby own the bank. All of the bank's profits are reinvested in the bank or distributed to the association's members – Sweden's farmers and foresters. Being the first institution, back in 2018, to issue a green covered bond backed by Sweden's forests was unique and is fully aligned with the objective of Landshypotek's vision, namely, to make a real impact in promoting a sustainable society based on the daily activities by entrepreneurs across the country.

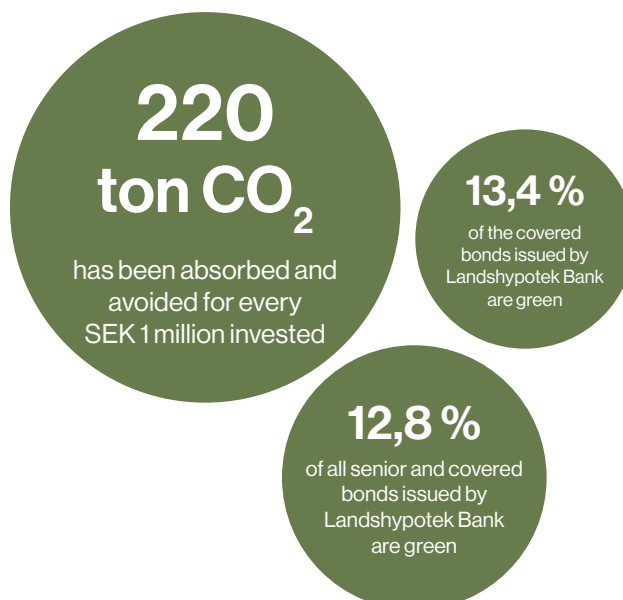
Landshypotek's Green Bonds framework

In spring 2018, Landshypotek prepared its first green framework to enable the issue of green bonds. The framework has been reviewed by the independent Center for International Climate Research (CICERO), which awarded the framework the highest shade "Dark Green." Under the framework, Landshypotek can issue covered bonds, senior bonds and subordinated notes. The proceeds raised by Landshypotek through the green bonds are to be used to finance sustainable forestry, renewable energy or green buildings.

Issued Bonds

In May 2018, Landshypotek Bank issued its first SEK denominated green covered bond. In 2019, the bank issued an additional green covered bond and a further tranche of the second bond in 2020. In April 2023, Landshypotek Bank issued a new green, covered bond which is used exclusively to finance sustainable Swedish forestry. This report details the impact of the green bonds which Landshypotek Bank issued in 2019/2020 and 2023 respectively. The total volume issued amounted to SEK 11.5 billion. The underlying forest in the volume of green assets backing the bonds amounts to just under 540,000 hectares, which corresponds to an area the size of Dalsland and Öland combined.

This report solely describes the impact from the underlying projects that meet the framework's sustainable forestry criteria. This report, like previous years, includes all green assets backing the bonds which ensures that the pool of underlying green assets is larger than the amount of green bonds issued. The total volume of green assets backing the bonds which totals SEK 12.3 billion.



Photosynthesis – function and impact

Photosynthesis is a natural process, whereby plants absorb carbon dioxide from the atmosphere and then convert it into energy. While some carbon dioxide is returned immediately through respiration, a considerable portion is allocated into the plant/ tree. As the tree grows, carbon is also allocated into the ground via the roots. Active use and management of forests lead to increased growth and, accordingly, greater carbon sequestration, which in itself results in a greater climate benefit. When harvesting forest, forest raw materials are extracted for further consumption. Forest raw materials have numerous applications and the stored carbon could return directly to the atmosphere if used for combustion but can also be stored in, for example, buildings. Moreover, a substitution benefit arises when forest raw materials replace other fossil materials or materials that consume large amounts of energy in their extraction. The substitution benefit often outweighs the primary benefit arising from the carbon sequestration in forest growth, but it is difficult to calculate exactly since this requires information about the manufactured products and their lifespans as well as the materials they replace. An average value for the substitution effect in Sweden is around 470 kg CO₂/harvested m³ob.¹

A growing forest binds carbon dioxide from the atmosphere. The more the forest grows; the more carbon dioxide that is stored, which also means that sequestration by Sweden's forests varies according to the location of the forest. Site quality, defined as the soil's innate capacity to produce timber, is determined by the soil, the climate, moisture conditions and exposure. Site quality is expressed in volume over bark per hectare and year. There are substantial geographical differences in site quality in Sweden.

¹Lundmark, T., Bergh, J., Hofer, P., Lundström, A., Nordin, A., Poudel, B.C., Sathre, R., Taverna, R., and Werner, F. (2014) Potential Roles of Swedish Forestry in the Context of Climate Change Mitigation, *Forests* 2014, 5(4), 557-578.

Growth and climate benefit calculations

Within the framework of this report, the locations of the forest properties, financed and refinanced with the bank's green bonds, have been divided into three geographic areas – the southern deciduous region (10.7 m³ob/ha/yr), the southern coniferous region (8.2 m³ob/ha/yr) and the northern coniferous region (4.4 m³ob/ha/yr). Based on the forest statistics for 2024 from the Swedish University of Agricultural Sciences' Swedish National Forest Inventory, the average site quality has been established for the three regions. Thereafter, the average site quality has been used as a growth multiple for calculating the change in the growing stock. Growth has been calculated for a full year, even if the issue dates varied throughout the year.

To calculate carbon sequestration at the forest properties financed by Landshypotek, the following formula has been used:

Total carbon sequestration (tons) = change in growing stock (m3ob) x BEF x CF

BEF (Biomass Expansion Factor) = conversion multiple for finding the total dry biomass

CF (Carbon Fraction) = carbon content of dry wood

For calculation purposes, the BEF has been set at 0.75, which is a weighted average for pine and spruce, and the CF has been set at 0.51. To convert carbon sequestration into carbon dioxide sequestration, the following formula has been used:

Total carbon dioxide sequestration (tons) = carbon sequestration (tons) x (CO₂ molecule's weight/C molecule's weight)

In 2024, the growing stock in the financed projects increased by 3.8 million m³ob (5 percent of the growth was in the southern deciduous region, 75 percent was in the southern coniferous region and

20 percent was in the northern coniferous region). The total net growth at the properties financed through the green bonds was estimated at a volume over bark of 760,000 cubic metres for the past year. On the assumption that 80 percent of the growing forest is harvested and is used to replace other material, a substitution benefit arises of 1.4 million tons in avoided carbon dioxide emissions. At the same time, the remaining standing forest contributes to a net carbon sequestration of around 1.06 million tons. This corresponds to an annual carbon sequestration and substitution benefit of around **2.48 million tons of CO₂**.

The project's average loan-to-value ratio is 0.32, which means that 0.8 million tons of CO₂ is a direct result of the financing and 2.48 million tons of CO₂ indirectly (when the entire forest stands are included). The calculations are based on site quality – in other words, the growth at the culmination of the average growth rate.

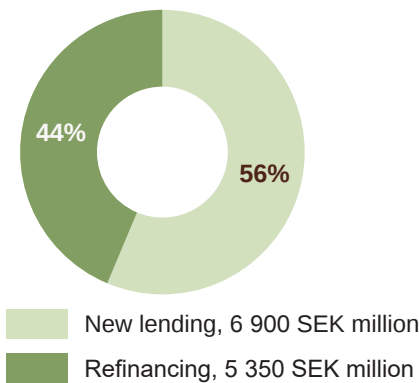
Development and calculation method

A growing forest is a biological process where the forest's growth and absorption of carbon dioxide varies from year to year. Compared with last year's report, the amount of carbon dioxide which has been absorbed and avoided per million invested SEK has decreased from 230 tons CO₂ to 220 tons CO₂.

The calculations are made on the underlying green forest properties, which always exceed the issued volume. The bank chooses to calculate on the underlying green forest properties instead of the issued volume because the green pool is dynamic and changes over time. This means that the effect per million invested can vary from year to year. The graph on page 8 shows how the green asset pool and the issued volume have developed over time. The bank has also compiled information on the development of the green asset pool over time in a table with underlying assumptions, which is in Appendix 1.

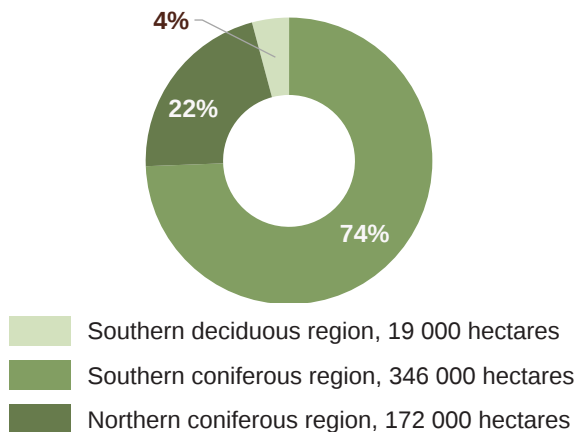
Distribution – refinancing and new lending since the most recent bond issue

Percentage of issued amount (%)

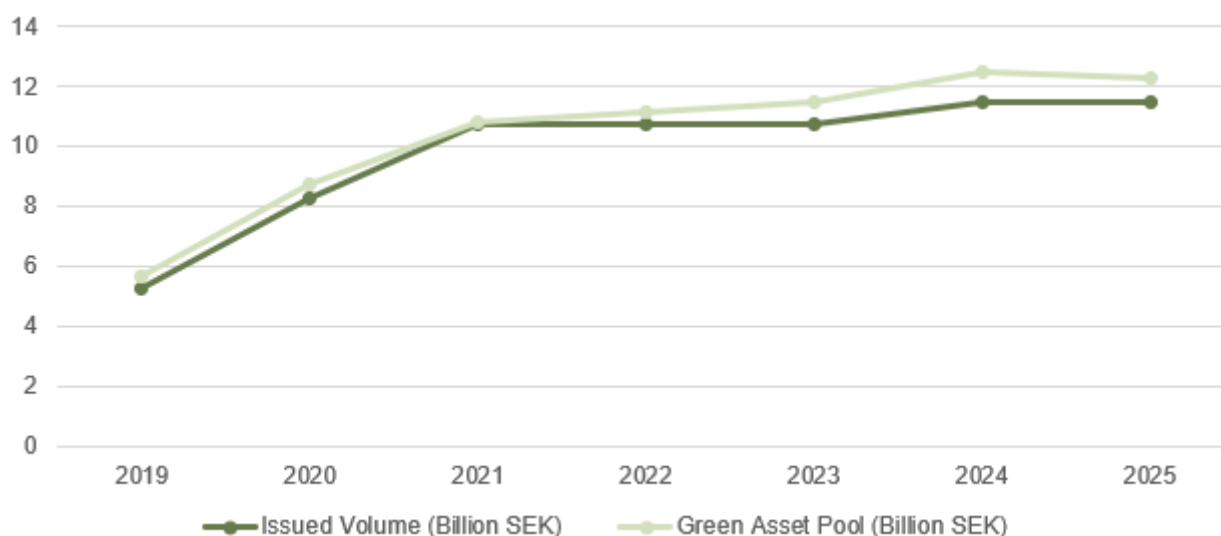


Geographical distribution of projects

Percentage of issued amount (%)



Green asset pool and issued volume (2019-2025)



Selection process for green assets

Landshypotek Bank has a Green Bond Committee that determines which assets can be financed with the green bonds issued under the framework. The Green Bond Committee has held 2 meetings since the most recent impact report was published. Repayments and redemptions are conducted on an ongoing basis throughout the year and, accordingly, it is crucial that the Committee meets regularly to ensure that, at any time, the volume of green assets backing the bonds exceeds the nominal amounts. At 31 March 2025, the volume of green assets backing the bonds amounted to SEK 12.3 billion, or approximately 2,700 underlying properties, and comprised exclusively of forest properties that meet the bank's criteria for sustainable forestry according to the green bond framework.

Taxonomy reporting

The bank is currently working with the implementation of the EU's taxonomy for forest management. At present, the bank cannot report what proportion of the bank's lending to forestry meets the technical screening criteria for forest management. However, the bank can conclude that it will be difficult for an individual forest owner, who comprise the majority of the bank's customers, to meet the requirements of the technical screening criteria. There is currently no accepted method for a group assessment whereby a group of forest properties is determined to fulfill the requirements of the technical screening criteria.

Review

Under the framework, Landshypotek's independent credit risk department is appointed to control and review, at least annually, that the allocations of Green Bond net proceeds are made in accordance with the Green Bond Framework. The annual internal review of the bank's green asset pool shows that a few properties have partially deficient documentation and will be processed by the bank's green committee. During the year, the bank has improved the handling of green forest properties to reduce manual handling errors, which will improve quality going forward.

Sustainable Development Goals



SDG 13. Climate action

Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Landshypotek's contribution: Sustainable forestry binds carbon dioxide and can also replace fossil fuels used for energy in the form of fuel and other products. This means a reduction in carbon dioxide levels in the atmosphere and greenhouse gas emissions, and thereby strengthens the resilience and ability to adapt to climate-related hazards and natural disasters. The target of setting aside a certain percentage to deciduous forest that is included in the bank's Green Bond Framework criteria also means that the resilience of individual forests also increases in terms of natural disasters such as fires, storms and pests.



SDG 15. Life on Land

Target 15.1: Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Target 15.2: Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

Landshypotek's contribution: The Swedish Forestry Act states that the forest is a renewable resource, which is to be managed to ensure sustainable yields of good returns, while taking into consideration the natural and cultural environments, reindeer husbandry and other interests. An obligation to replant after harvesting is also contained within the law. The bank's framework requires customers to comply with the law, and also includes requirements in terms of a green forest management plan, that at least five per cent is set aside for nature conservation measures and that there are targets for inclusion of a minimum proportion of deciduous forest. The forest can also be certified through FSC/PEFC, both of which set at least equivalent requirements. These measures promote more long-term sustainable use of forests and accord with the international agreements implemented in Swedish legislation.



Four voices for sustainable forestry

Importance of sustainable forestry – for growth, biodiversity and climate benefit

Global warming is one of the greatest challenges of our times. The growing forest has a key role to play in countering climate change. 30 percent of the surface of the earth is covered by forest. The forest is key to the transition to a fossil-free society, since it is included as a natural part of the carbon cycle and absorbs carbon dioxide from the atmosphere.

In Sweden, the forest covers almost two thirds of the total land area and is seen as a national asset and resource. Its significance and size makes it important to use and manage forests sustainably with a long-term perspective. This is to ensure that growth in the forests remains high and to preserve biodiversity and maintain the natural variations of the landscape.

We have met Cecilia, Viktoria, Daniel and Mimmi again – four of the forest owners whose forests are financed by Landshypotek Bank's green bonds. Over the following pages, you can read about how they manage their forests for growth, biodiversity and for the benefit of the climate.

A woman with dark hair, wearing a red sweater and a dark jacket, is walking through a forest. She is smiling and looking towards the right. The forest has tall, thin trees and a ground covered in green moss and small plants.

Returning to the forests outside Åseda with Cecilia and Viktoria

Last year we had the opportunity to visit Cecilia and Viktoria Birgersson. They are sisters who are both forest owners outside of Åseda, a town halfway between Växjö and Oskarshamn. Even though they own separate forestry properties, they have a lot in common from their childhood and their father was a forest owner. We had the opportunity to talk to Cecilia and Viktoria again to see what has happened in the past year.

Cecilia, tell us about the past year in the forest. What have you done and what has been your main focus?

— Due to the fact that I had done a lot with my forest over the few years, 2024 was a quieter year for me. Two wind turbines are being built on my land, which has meant cutting down the forest where the wind turbines will be located. In addition, some new forest roads have been built in parts of the forest. But there are things that are recurring every year, such as planning ahead, taking inventory of plants and possible support planting where needed, Cecilia says.

How was the work in the forest during the different seasons?

— As it has been a bit quieter in terms of work in our forest, the focus has been on environmental protection clearing and young forest clearing during the spring and summer. During the autumn, the focus was on treating the plants to ensure their continued growth and minimise the risk for potential damage from wild animals. Now in the spring, I will do some support planting. It is then time for some forest clearing in the younger parts of the forest and preparing for a thinning that will take place a little later this year. During the winter, we have built a road with a turnaround area to enable the timber trucks' netry for the upcoming thinning in the autumn, Cecilia continues.

What do you think about 2025 in terms of your forest? What opportunities and challenges do you see in the near future?

— The climate is always a challenge, in particular will it rain enough? It has been a very dry winter so we will see how the plants are doing now that the growing season is getting underway and how well they have coped with the grazing pressure from the moose. For me, it is always a trade-off and a challenge to get sufficient returns from the forest, as I purchase many of the forest services and do not have the opportunity to do much myself in the forest, Cecilia concludes.

How has the past year been for you Viktoria?

— For me, there has been a little less time in the forest as a lot of time has been spent on renovating our house. Fortunately, there was less work required in the forest this past year with less work required to deal with spruce bark beetle infestations and storm damage, which was good. We received a building conservation award from the municipality for our work in preserving the area's cultural heritage. Even though a lot of time is spent restoring the environment on and around the farm, it is nice that it is also being noticed and appreciated by more people.

What have you done in the forest during the year?

— During 2024, there were no major measures undertaken in the forest but there are always a lot of small things that need to be done. I did some planting, clearing, thinning and spraying. It has been something of a “gap year” in the forest.

How has the first part of this year started?

— I have actually completed courses to refresh and update my knowledge. I have completed a forestry course at Vreta Educational Centre in addition to a board training course. I have also started to get my hunter's license. I still need to complete the shooting-based test but I hope to be able to keep my nerves in check. Otherwise, I have spent a lot of hours manually thinning the forest to free up fences. It turned out to be a bigger project than expected, as I came across a spruce bark beetle population, and as usual, it is just as good to take “that bit over there too”, while you are there in the forest. Spruce timber was cleared and the wood chip stock for the winter of 25/26 was filled up considerably.

What do you think about 2025 in terms of your forest? What opportunities and challenges do you see in the near future?

— My main concern for 2025 is the fear of drought and everything that it means, such as poor growth, damaged stands and forest fires. For the fall, we are planning a couple of thinnings to mainly reduce the number of trunks so that there will be enough water. We have also started talking about how we could broaden our operations to have more “legs to stand on” and to be less vulnerable in a turbulent time where everything from the US to property rights to climate change is affecting us. It is no longer possible to say “this is how we have always done it”.





Do you want to know more about Cecilia and Viktoria's forests? Feel free to read last year's impact report which you can find [here](#), or at landshypotek.se/en/about-landshypotek/investor-relations/esg-and-green-bonds/

CECILIA - FOREST OWNERSHIP

Municipality: Uppvidinge

Certifications: FSC and PEFC

Area: 425 hectares

Productive forest land: 392 hectares

Pine: 41%

Fir: 47%

Leafy tree: 12%

Growth: 6,5

Areas with nature conservation objectives: 6%

VIKTORIA - FOREST OWNERSHIP

Municipality: Uppvidinge

Certifications: FSC and PEFC

Area: 437 hectares

Productive forest land: 388 hectares

Pine: 52%

Fir: 32%

Leafy tree: 16%

Growth: 5,9

Areas with nature conservation objectives: 7%



A return visit to the forests outside Östervåla

We also had the opportunity to revisit the forests outside Östervåla, where Daniel and Mimmi run their agricultural business, which includes crop farming, contracting, and forestry. Naturally, we focused on the forestry aspect and what has happened in the forest over the past year.

Tell us, how did the year begin?

— In the spring of 2024, we tried sowing pine seeds for the first time on two sections that we had previously harvested, prepared the soil, and planted spruce with 1,500 seedlings per hectare. Sowing was definitely labor-intensive, but it seems to have taken well so far, which is exciting. It will be interesting to follow the continued establishment and growth, says Daniel.

— As usual, there were some uprooted trees and windfalls to deal with after the winter storms and weather. Some of what we cleared was chipped and later used in our woodchip boiler on the farm, which powers the grain dryer, Daniel continues.

— We have also done some planning work during the year and made plans for upcoming thinnings and harvests together with contractors and timber buyers. In addition, we upgraded parts of a forest road and built an entirely new stretch to improve accessibility in the forest. This way, we reduce the forwarding distance and make forestry work less labor-intensive – something that benefits both the bottom line and the climate, as less fuel is needed, explains Mimmi.

During the summer, farming understandably takes up more of your time. What did you focus on in the autumn?

— We began pre-commercial thinning, simply removing the smallest and weakest stems before it is time for thinning. One section was thinned for the first time, and two sections were thinned for the second time. Hopefully, this will really kickstart the growth of the remaining trees, says Mimmi.

— We were also able to make use of some firewood, which will be used in our grain production on the farm for this year's harvest, Daniel adds.

— In late autumn, we prepared the soil on some of the land that had been harvested earlier in the year. We are planning to plant in May, likely with 90% pine and 10% spruce. Later in the year, we'll clear a larger section dominated by deciduous trees, where a lot of naturally regenerated coniferous trees have started to grow. We want to support and promote their growth to achieve a good balance between coniferous and deciduous trees, Daniel explains.

How would you summarise the year, and what are your thoughts on the current state of the forest?

— Overall, it has been a good year, and we hope the new plantings will establish well and get a strong start. The global situation and all the uncertainties out there naturally affect us all. There is a lot of uncertainty about what will happen going forward and how it might impact, for example, timber prices. Regardless, we believe in the green sector. It is a sustainable and long-term industry that we're proud to be part of. We hope to continue investing in more land and forest in the future, Mimmi and Daniel conclude.

DANIEL OCH MIMMI - FOREST OWNERSHIP

Municipality: Uppvidinge

Forest management plan: 2015-2025

Area: 354 hectares

Productive forest land: 240 hectares

Pine: 61%

Fir: 27%

Leafy tree: 12%

Growth: 6,0

Areas with nature conservation objectives: 8%

Do you want to know more about Mimmi and Daniels' views on the forest? Feel free to read last year's impact report which you can find [here](https://landshypotek.se/en/about-landshypotek/investor-relations/esg-and-green-bonds/), or at landshypotek.se/en/about-landshypotek/investor-relations/esg-and-green-bonds/



Appendix 1

The Green Asset Pool's development over time

Impact Report	Issued volume (billion SEK)	Green Asset Pool (Billion SEK)	Buffert (Billion SEK)	Assumed harvesting level	Substitution Effect (m ton)	Absorption and substitution effect (m ton)	Effect per invested million SEK (t CO2)	Area certified forest (hectares)
2019	5,25	5,63	0,38	0,75	0,74	1,40	267	203 419
2020	8,25	8,73	0,48	0,75	1,06	1,97	240	207 176
2021	10,75	10,79	0,04	0,75	1,64	2,67	250	199 397
2022	10,75	11,16	0,41	0,75	1,71	2,75	260	193 892
2023	10,75	11,50	0,75	0,80	1,54	2,25	240	184 786
2024	11,50	12,50	1	0,80	1,85	2,70	230	181 433
2025	11,50	12,30	0,80	0,80	1,42	2,48	220	181 642

The area of certified forest has decreased somewhat since the first impact report. The reduction is due to the fact that the bank does not always require documentation about forest certification in conjunction with the credit approval process. This means that the bank does not always have

information about certification in a structured form. The bank requires a valid forest management plan as part of the credit approval process which means that the bank can identify forest properties which meet the green bond framework's criteria for sustainable forestry.



