Monitoring and evaluation of our forestry operations at SCA Skog

2024

SCA

Introduction

In line with the requirements of the Swedish FSC® standard for forest management, SCA Skog continuously monitors and assesses the outcome of operations, to steer toward our targets and improve. SCA Skog has a long tradition of working with quality assurance of measures taken and of working practices, which over time has created a model for following-up forestry measures at several stages of a process.

Our model for following-up measures taken includes, in general terms, the following steps:

1. The person performing a measure makes a self-assessment by following up their own work
2. The responsible production supervisor or other staff conducts spot checks on measures taken
3. Appointed persons with suitable qualifications and experience for the assignment perform a central follow-up of spot checks on measures taken

We believe performing regular qualification exercises and having a present leadership play a major role in ensuring a good dialogue and standardized working practices.

In this presentation, we describe some of the recurring follow-ups performed by SCA Skog, and briefly report and reflect on the results of the follow-ups and other activities during the year.

Pleasant reading

Contents

Management plan of our forest

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SCA’s nature consideration work and distribution of conservations areas*

Voluntary set-asides (100% retention)

Forests with very high natural values do we set aside voluntary for free development or to be managed in a nature conservative way so that the forest maintains its natural values over time. For example, we carry out conservation burning to benefit fire-dependent species or harvest competing spruces in pine or deciduous forests. Our goal is 7% voluntary set-asides of SCA's total land holdings.

Combined targets (> 50% retention)

Forests with moderate to high natural values can we manage with less extraction of wood while preserving the existing natural values and without creating large bare areas. These forests can be managers with mainly various continuous cover methods where we harvest some trees but preserve the forest feeling. In many cases this benefits the reindeer husbandry. Our goal is 3 % combined targets.

Production with adapted retention (15-30% retention)

Forest with mainly adapted retention. Another 3% of our forest holdings are managed with adapted retention. For example, we save conservation areas to preserve sensible species, or we leave a roof of deciduous tree canopies to create bright and open deciduous forests that many birds benefits from. Also, consideration to the reindeer husbandry, like buffer zones with lots of hanging lichens, is another example of forests with adapted retention.

Production with general retention (~15 % retention)

The remaining part of our land, 87%, is handled with basic retention in our forestry. This means, among other things, that we save buffer zones adjacent to waterways and wetlands and saves smaller forest areas for sensitive species. It also includes leaving groups of trees, dead wood and scattered trees that are old or otherwise important for insects and birds, for example.

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* SCA’s 2 million hectares of productive forest land in Sweden

Target numbers and outcomes, 2024

	Percent of productive forest land	
	Ambition	**Outcome 2024**
Basic retention (~15% retention)	87	88
Voluntary set-asides (100% retention)	7	8
Extended consideration	6	4
- of which Combined targets	3	2
- of which Adapted retention	3	2
Share of older forest* (%)	>2	7.3
Burned forest land (ha)	Approx. 200 ha**	193
Area dominated by deciduous trees (%)	>5	3.6
	Percent of total forest holdings	
Converted area according to the Swedish FSC standard definition (Pinus contorta and wind power)	Max 5%	3,1% (Pinus Contorta*** 84,008 and Wind 686 ha)

*Older forest ≥ 140 years
**Corresponds to approximate burned area required to reach the target level of 495 ha/year after enumeration factors. Burning carried out in 2024 corresponds to 360 ha with accrual factors.
***Established Pinus contorta after 1994

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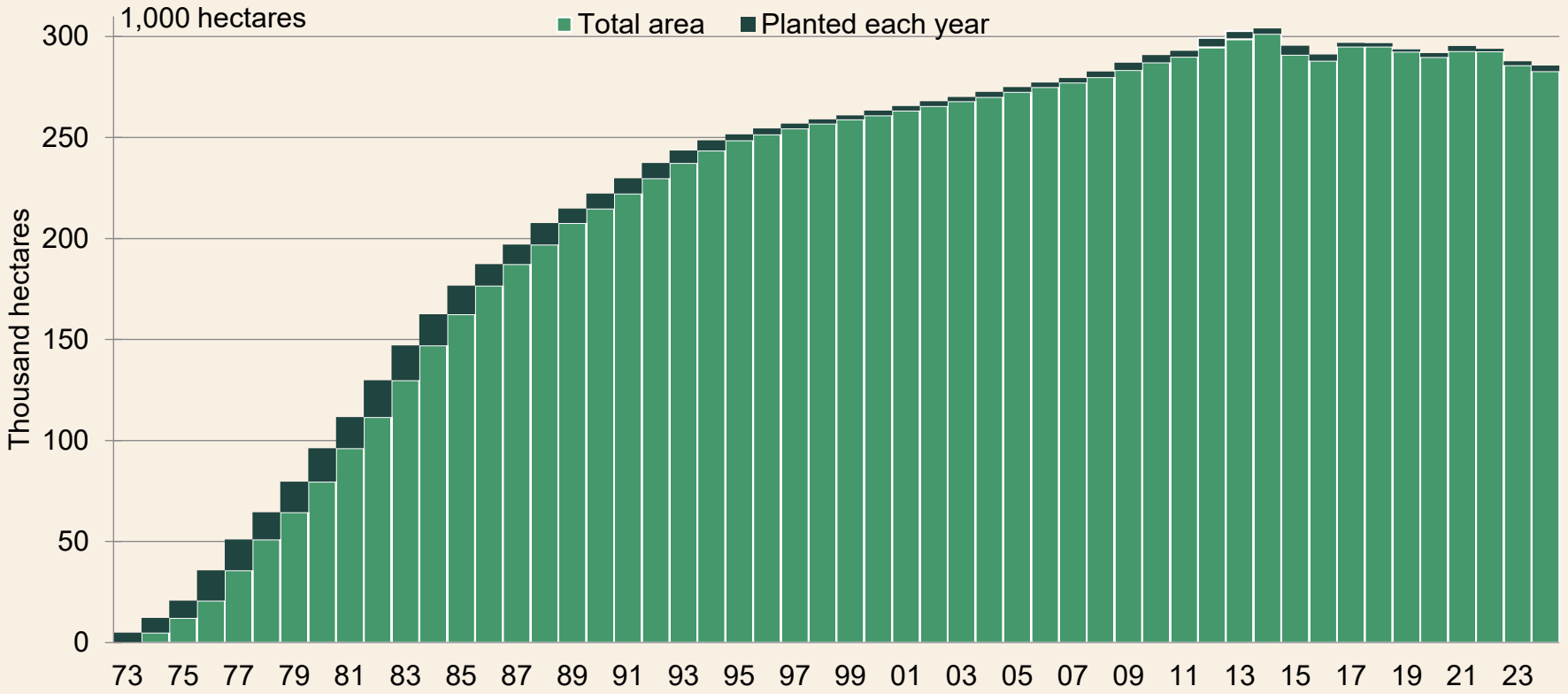
Total area Pinus contorta
1973-2024

SCA began planting large-scale contorta pine stands around 1970. The use of non-native tree species is regulated in the Swedish Forestry Act and by the FSC and PEFC forest management standards. The area declined slightly after the storms in 2011 and 2013. In 2023, contorta pine constitutes approximately 15% of the forest holdings. Since the storms, annual planting has been approximately 1–2,000 hectares and mainly carried out on land that had previously been planted with contorta pine. Sites are chosen following collaborative planning with relevant Sami communities and in accordance with the FSC och PEFC standard.

The earliest plantations are becoming mature for felling, and the felled area has increased in recent years.

The long-term objective is that the contorta pine stand shall amount to 15% of the forest holding.



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Harvesting calculation

SCA's strategic targets for managing forest resources include that it should be sustainable in the long term. To ensure this, the company works with both follow-up and long-term forward-looking impact analyses.

Forest inventory (abbreviated in Swedish to "FTAX")

- SCA uses forest inventories for detailed follow-up of the development of the forest status. FTAX is an inventory of spot checks of the company's forest and is carried out every six to eight years. The result is used in following-up the forest status and as inputs in the company's harvesting calculations. SCA conducted its first FTAX in 1947. The latest survey was completed in 2019 and was the tenth to be performed (FTAX 10).

Harvesting calculation (abbreviated in Swedish to "AVB")

- Every six to eight years, SCA carries out impact analyses of different strategies for harvesting and forest management. The calculations have a time horizon of 100 years to ensure long-term sustainability. Internally, the impact analyses are referred to as Harvesting calculations (abbreviated in Swedish to "AVB") and lead to decisions on the size of harvesting and direction for the period until the next AVB is performed. The latest calculation was completed in 2020 (AVB 20).

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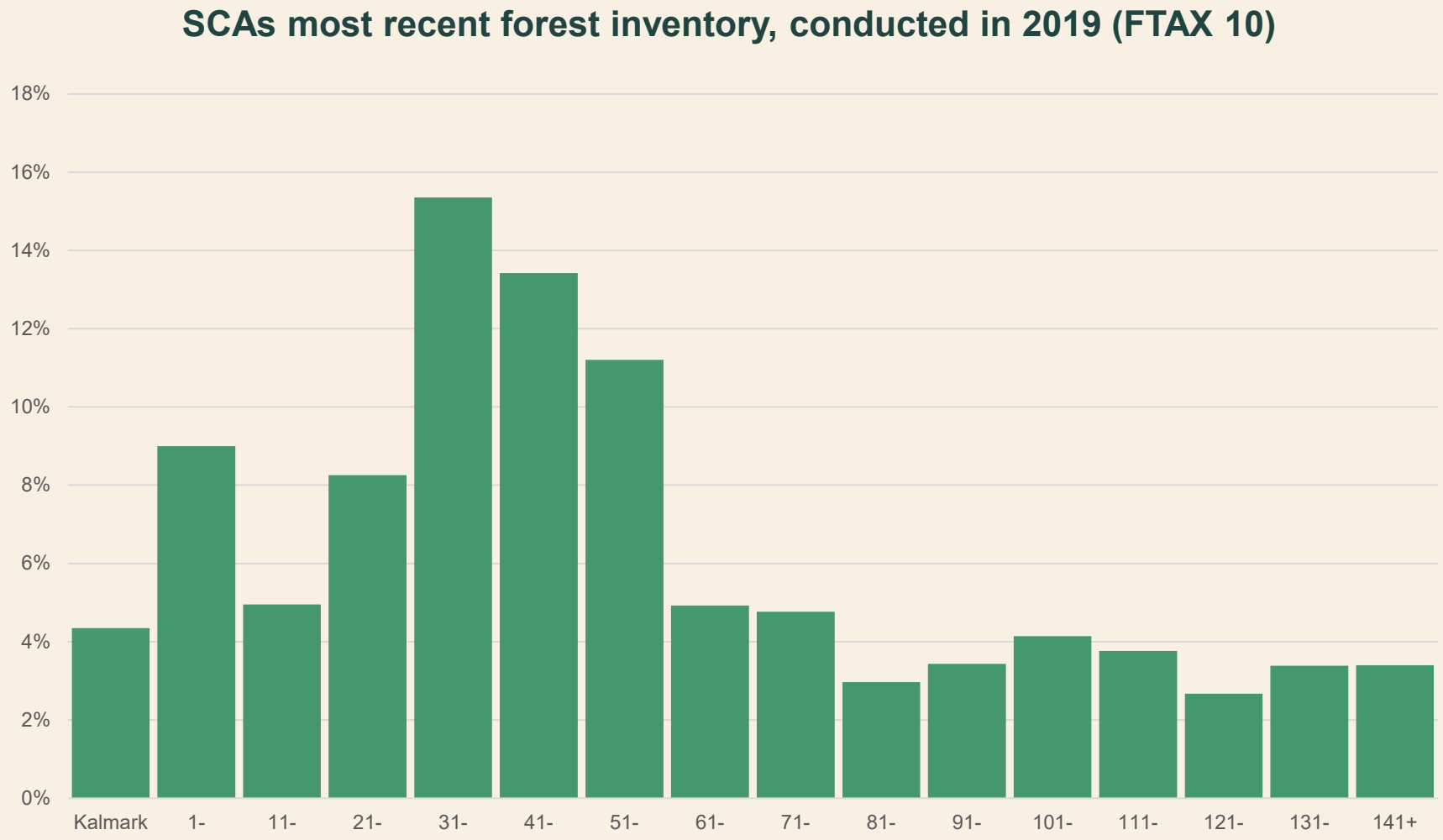
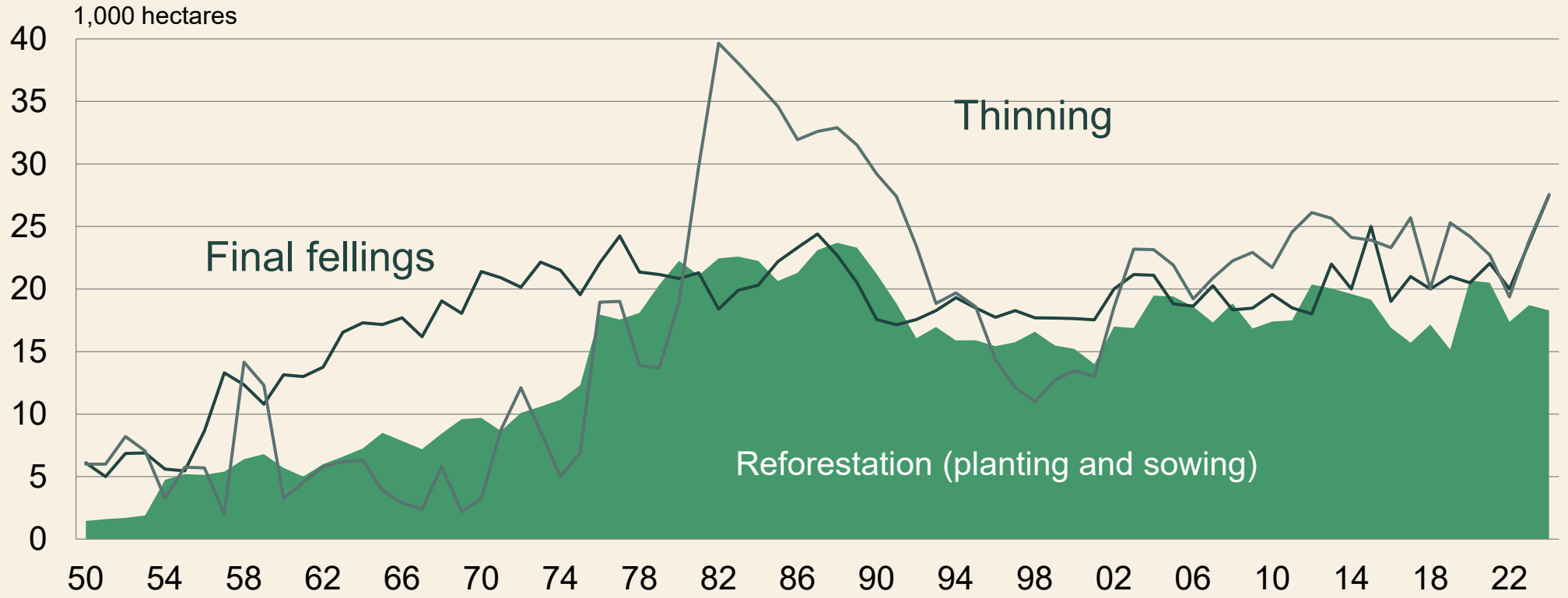
Age class distribution of the forest



Area of final felling, reforestation and precommercial thinning

1950-2024



Incl. Scaninge Timber from 2002

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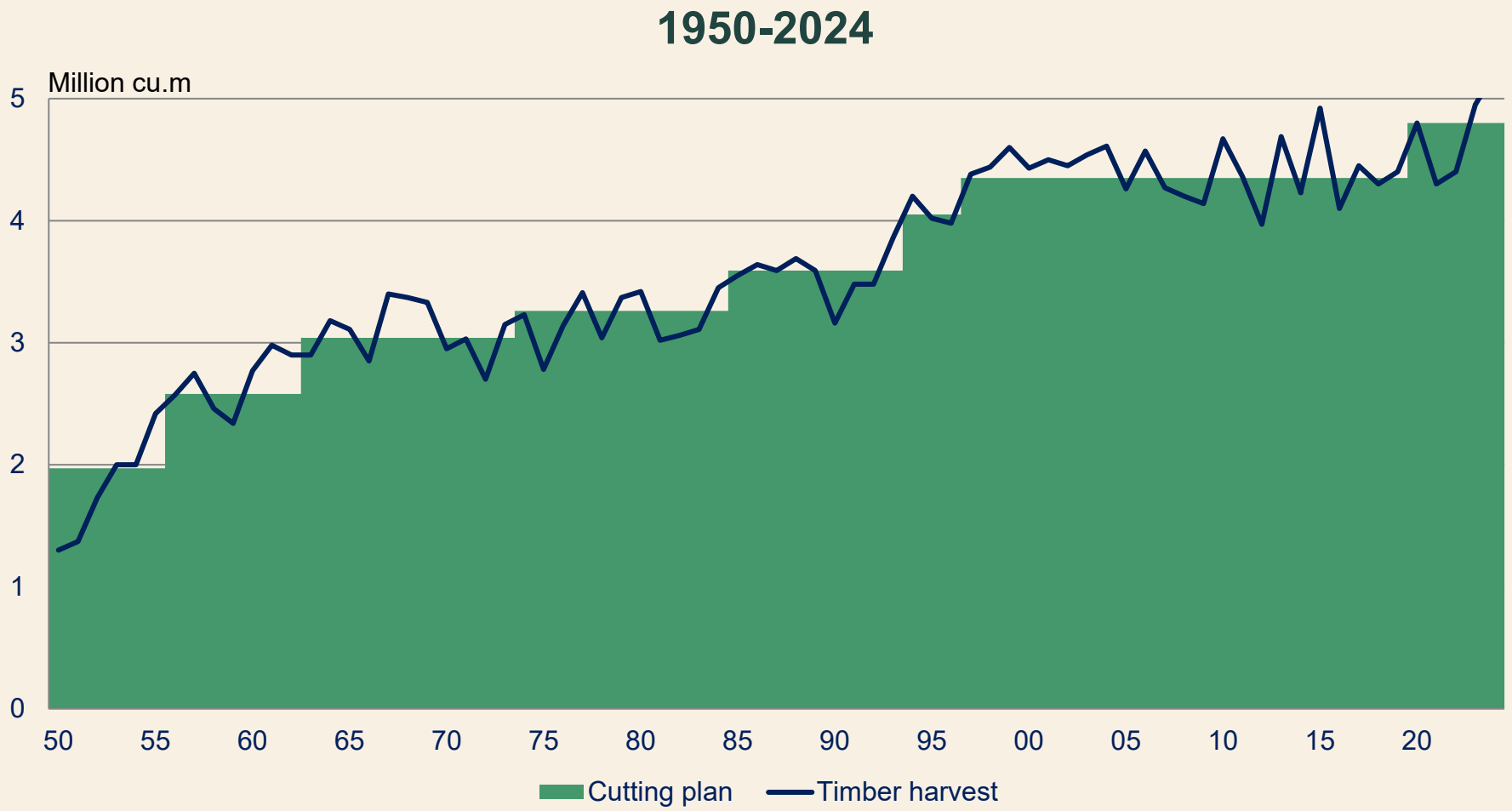
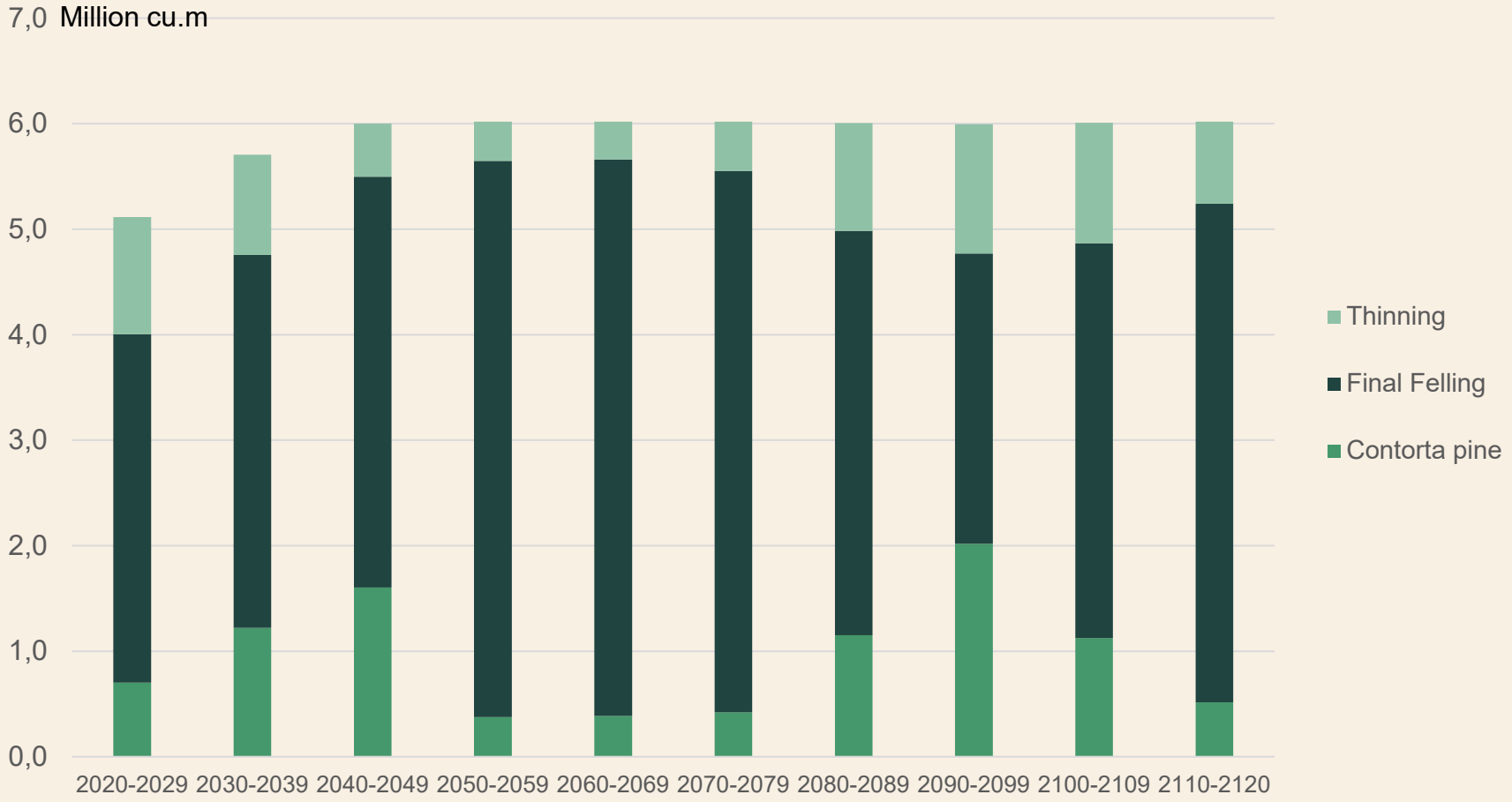
Planned and actual felling from own forests



Potential harvest

Harvesting in ten-year periods according to SCA's harvesting calculation plan 20



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Follow-up of forestry measures

Share of deciduous trees

SCA's young forests must have at least 10% deciduous trees

- Deciduous trees are an important feature in our Swedish forests but have been in short supply in due to extensive control in the past.
- Deciduous trees are important for timber production but above all to promote biodiversity by contributing to diverse forests.
- SCA's certifications and clearing instructions are geared toward at least 10% of deciduous stems in our young forests.
- In 2024, deciduous trees accounted for an average of 22% of stems capable of development left (main stems).

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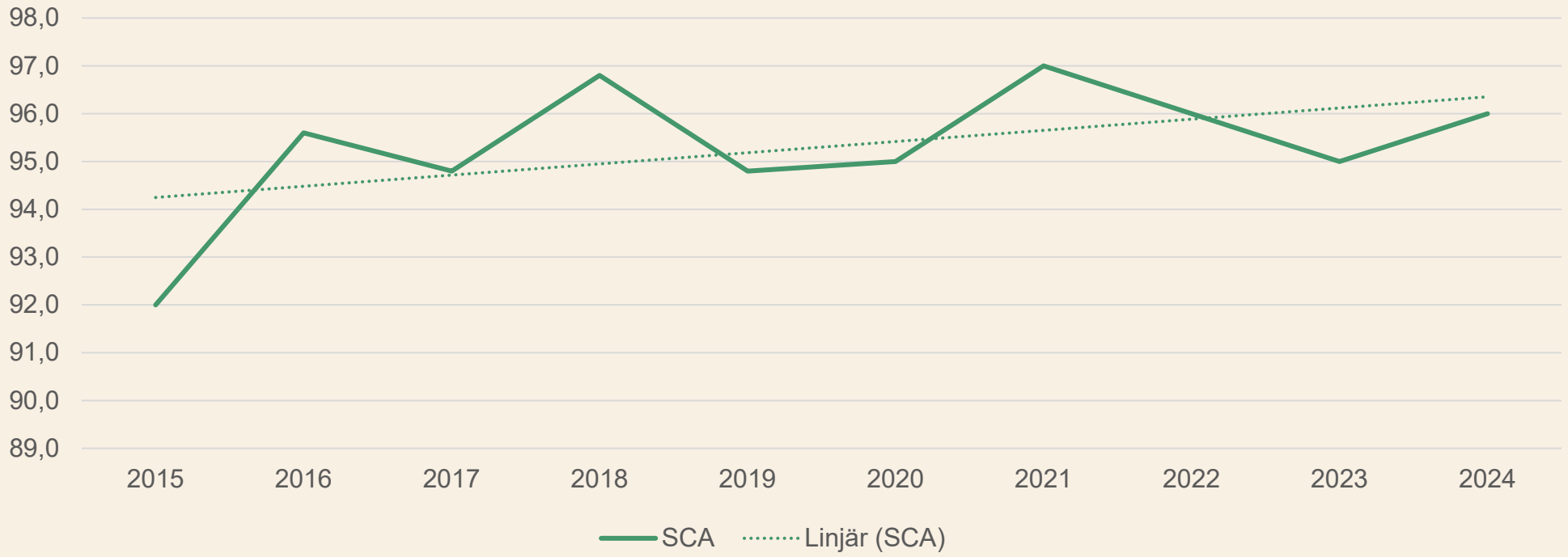
Silviculture

Soil scarification, planting and pre-commercial thinning

- On its own land, SCA is to select tree species and forestry methods that create a long-term, profitable and high level of timber production. In all forest management measures, SCA takes into consideration natural conditions, natural and cultural environments, reindeer herding and social values such as recreation and outdoor activities. SCA promotes good forest management when we undertake work on behalf of private forest owners and primarily offers services aligned with SCA's strategy for establishing new forest. The planning and execution of forest management is performed by trained personnel and contractors with the right expertise for the assignment.
- Each year, SCA performs forest management measures on large areas of its own forest and at private forest owners who engage SCA, see the slide "Silviculture acreage excl. fertilization". To ensure future timber production and good nature and cultural conservation, the quality of work performed is of the utmost importance. Most of SCA's forest management is performed by contractors and when an assignment is completed a quality declaration is prepared that measures and assesses quality. Objects that fail must be rectified.
- SCA conducts spot checks on completed quality declarations to build a common understanding of quality and performance. As a guideline, at least 20% of the projects should be followed-up. Follow-up is stepped up for contractors/teams that have demonstrated quality defects.
- **The result of SCA's quality follow-up for soil scarification and planting is presented below. Acceptable level is 90% approved planting spots or plants in relation to the objective in the contract.**

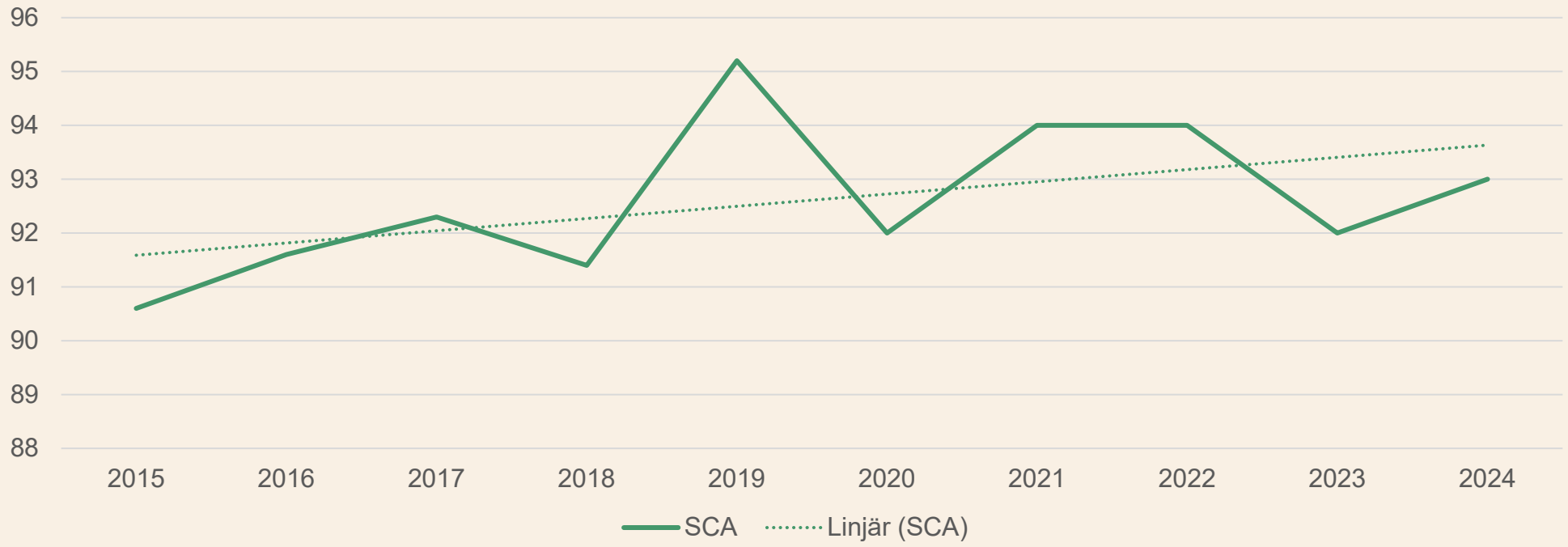
Soil scarification

SCA’s quality limit is 90%, our goal is 95%

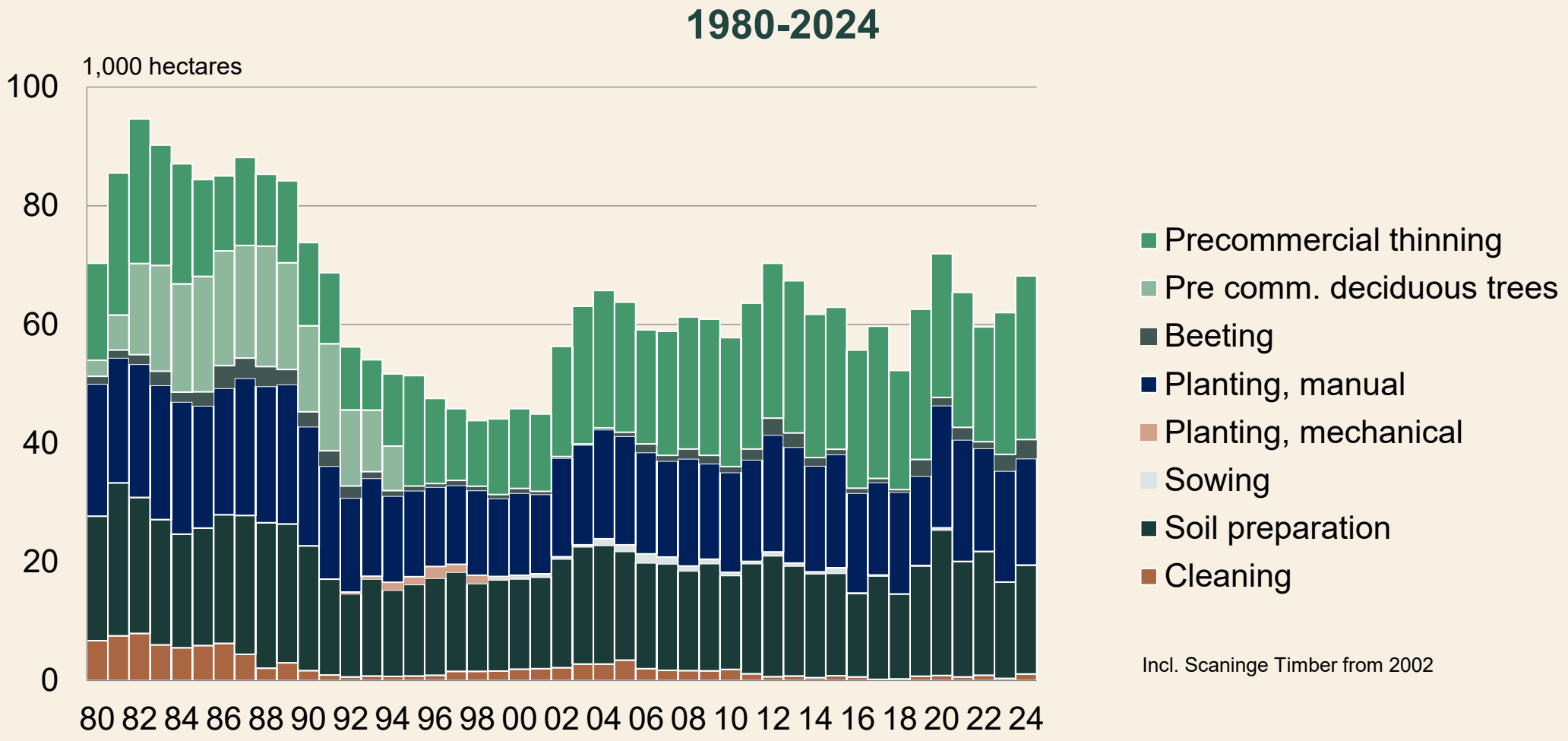


Planting

SCA’s quality limit is 90%, our goal is 95%



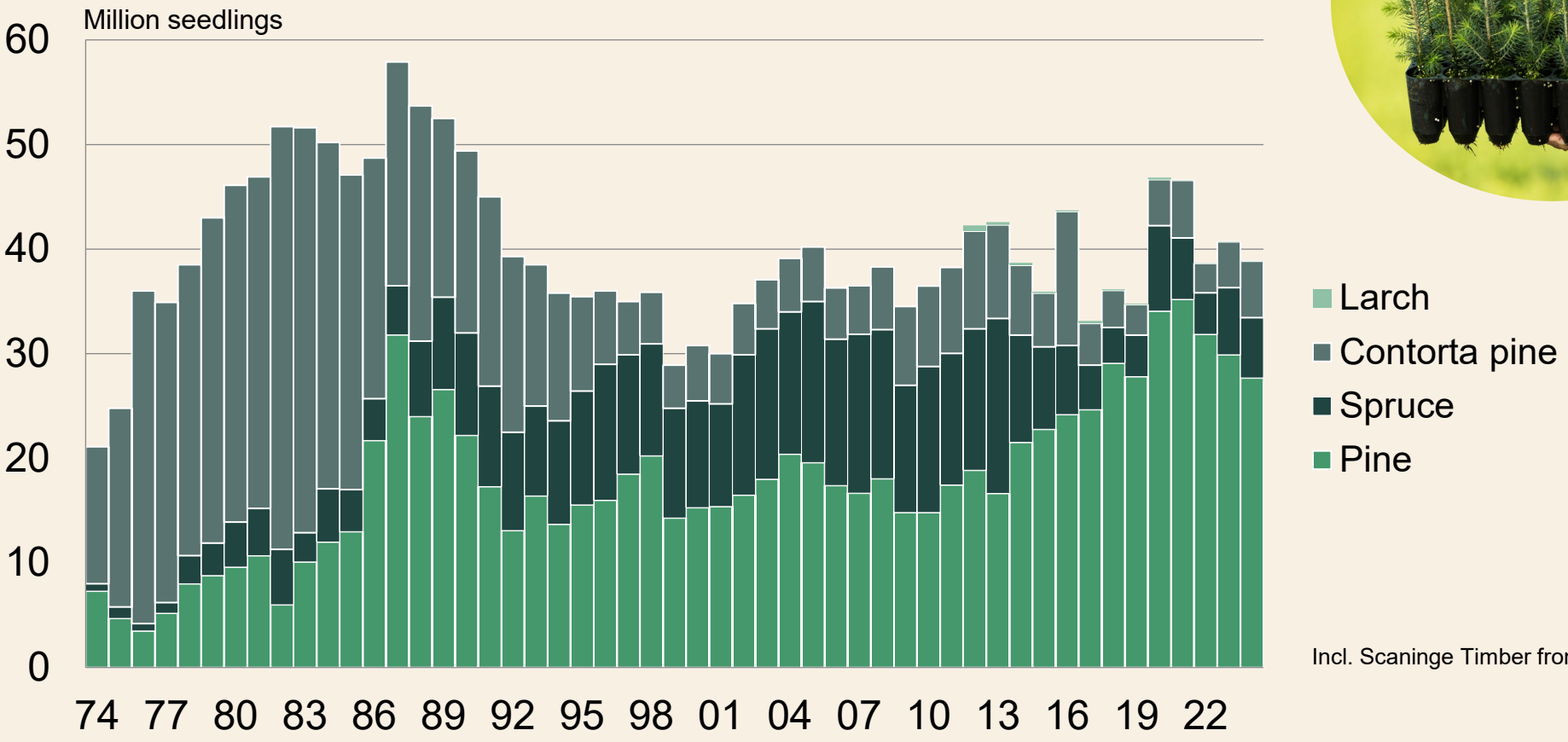
Silviculture acreage excl. fertilization



Incl. Scaninge Timber from 2002

Seedling consumption

1974-2024

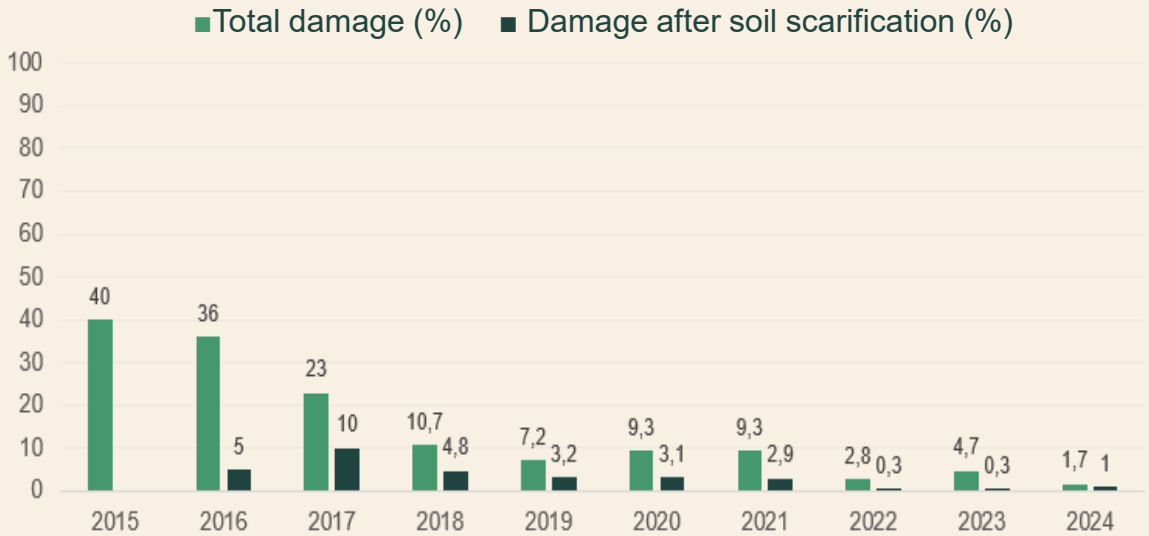


Incl. Scaninge Timber from 2002

Damage to ancient and cultural remains

The follow-up indicates damage to known remains overall and following soil scarification

- In 2024, follow-up was performed on 412 remains (incl. restricted areas) (401 in 2023).
- The results for 2024 are the best results so far since we started doing follow-ups after soil scarification.
- Continued measures in 2025 according to our instructions and action plan to reach the vision zero.



Damaged ancient and cultural remains	Number	Percent
Rutting damage	3	0.7
Forest residues	0	0.0
Windfalls	1	0.2
Soil scarification	3	0.7
Total	**7**	**1.7**

Operational planning

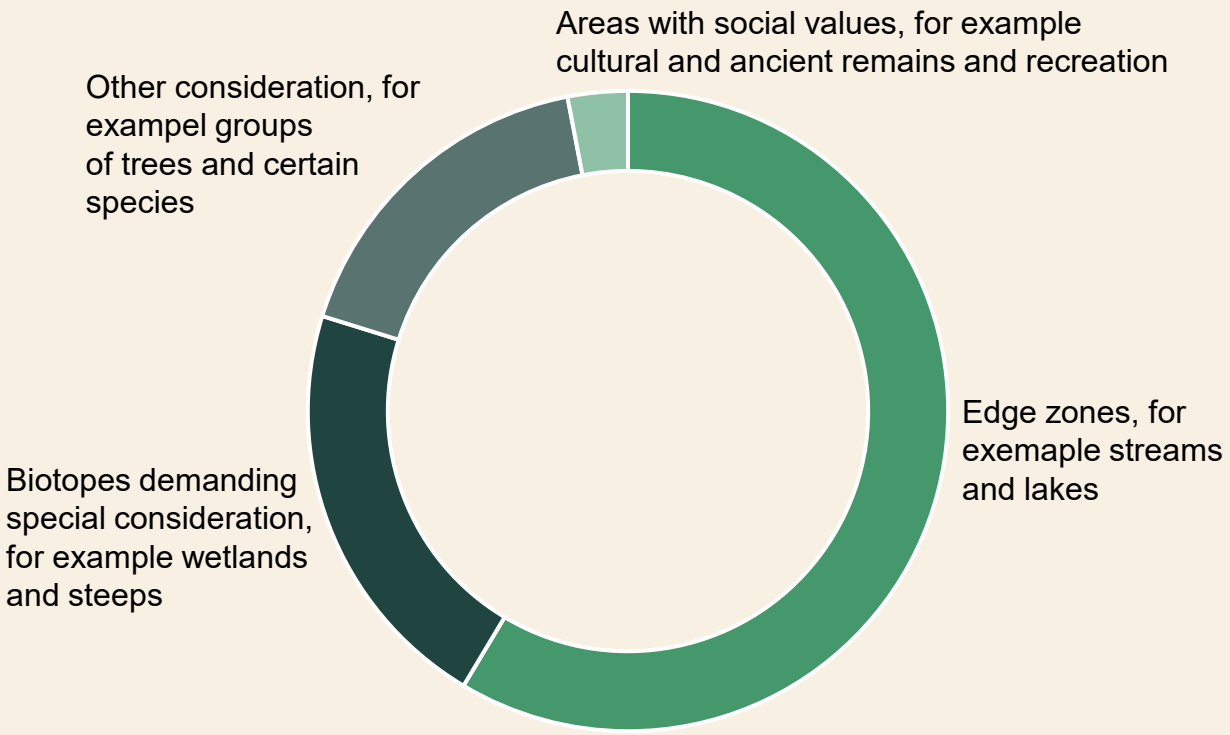
Operational planning encompasses planning of how the area should be harvested, the nature conservation measures we should take, which roads are needed and whether they are in good enough condition, how machinery should drive to protect the soil and how to ensure regeneration. Planning requires work both from the office and in the field.

Operational planning follow-up (abbreviated in Swedish to "TPU")

- TPU is a centralized follow-up of our operational planning process. It is a coherent and targeted quality follow-up that uses spot checks, with a particular focus on new employees and new contractors.
- The follow-up indicates shortcomings and potential improvements for the operational planners, but also on what has worked well and that we want to build further on.
- Operational planning follow-up provides supporting data to pursue continuous improvements in respect of our introductions, instructions and working practices.
- One measure implemented in 2022 to strengthen expertise in species consideration and to support our planners was the creation of a new position that we refer to as operational planning specialist. The specialists will support planners in conservation value assessments, for example, and act as a complement to our nature conservation experts.

Planned nature consideration in final fellings

Nature consideration area by types



In SCA' s final felling planning about 16% of the area is saved.

Harvesting

Harvesting at SCA should adopt effective and functional nature consideration measures. We monitor this continuously in several stages based on different variables to create a sense of commitment and improvement efforts that pervade the entire chain.

Environmental consideration follow-up after harvesting (abbreviated in Swedish to "NUPP")

- The Production function continuously monitors the quality of regeneration harvesting. This follow-up (NUPP) uses targeted random checks every quarter with a set scope per forest machine team.
- NUPP is performed by each production supervisor and is primarily designed to offer constructive feedback to the forest machine teams that are harvesting, as part of efforts to achieve continuous improvements.
- NUPP provides a quality rating of the consideration for which the forest machine teams are responsible in terms of the functional considerations. A rating of 3 and 4 means the consideration is approved, while a rating of 1 and 2 means the quality of the consideration is either below or above the target level.

Summary NUPP, 2024

The quality of the consideration for which the forest machine teams are responsible is reported in the following categories:	**Share of approved sites:**
Damage to soil and water	92%
Consideration for ancient and cultural remains	92%
Consideration to living trees	97%
Consideration to dead wood	96%

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Follow-up of social and environmental impact of forest management

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Collaborative planning with reindeer husbandry

The term and process “collaborative planning” involves collaboration between the forestry and reindeer husbandry to enable coexistence. Through collaborative planning, we want to identify solutions that minimizes the impact on reindeer husbandry, within the frame of management strategies and harvesting calculations.

- The collaborative planning process is conducted in a time horizon of at least five years at a time, or other agreed period of time.

- The collaborative planning is carried out with a landscape perspective to overview effects and prioritize measures and possible adaptations.

- The process with the affected Sami community, to decide on the long-term plan, takes about 3–6 months and includes, in general terms, the following steps:
    1. We contact the Sami community and offer collaborative planning with a suggested date for a first meeting
    2. Documentation and contact details are sent in an invite via our joint digital platform – samplanering.se
    3. The first meeting takes place
    4. If necessary, a second meeting and/or a joint field visit is undertaken
    5. If necessary, the parties request support in the process from FSC (so called mediation)
    6. If necessary, the parties request dispute resolution via FSC Sweden

- Some 30 Sami communities have institutional rights to herd reindeer on SCA’s land.

- The following variables could be important to discuss in collaborative planning: harvesting date, site preparation method, fertilization, choice of tree species when replanting and the construction of forest roads In areas where reindeer herding is particularly important, other measures such as clearing, thinning, extraction of felling residue for energy purposes, and alternative forms of harvesting can become relevant to discuss. The measures can often be designed to ultimately improve pasture supply for reindeer.

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Collaborative planning process in 2024 with reindeer husbandry

Work yard where the forest is to be thinned out according to the wishes of the Sami village. Collaborative planning was carried out in field summer of 2023. Photo: Anna Marntell ©.

In 2024, the focus has been on continuing the work to find the forms for co-planning and to develop tools that facilitate the process:

- Sami villages were offered co-planning in the planning tool samplanering.se, which facilitates co-planning from a landscape perspective.
- Co-planning was also offered east of the so-called "FSC border" that was in the previous FSC standard.
- During the year, SCA co-planned with 21 Sami villages and a total of 83 co-planning meetings were held where approx. 4,800 forest stocks were managed.
- To be in phase the foresight that the Swedish FSC standard describes (5-7 years), the amount of co-planning needs to increase in the coming years.
- The outcome of co-planning for 2024 means that an increased area of older forest ready for harvesting will remain "locked" without consent for harvesting.

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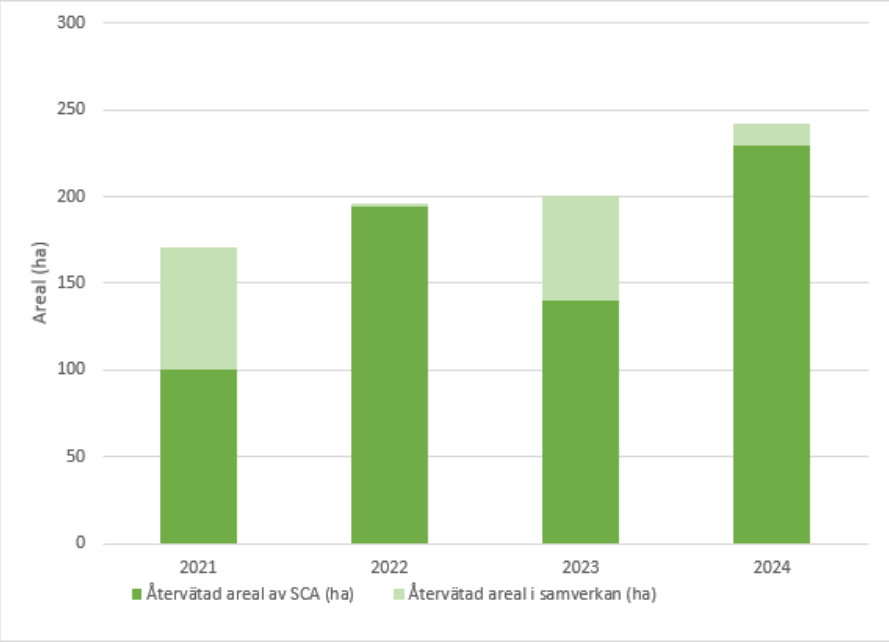
Restoration of wetlands

During the 1900s, many wetlands and peatlands were drained to increase forest production. This dried out wetlands and peatlands and weakened habitats for many species that depend on wet sites for their long-term survival. This also resulted in increased CO_2 emissions as the soils reacts to oxygen which breaks down the peat. In the long run, the ability of the wetlands to retain water in the landscape has decreased.

At SCA, we have aimed to restore wetlands. Our objective is both to initiate and undertake actions on our own land with a geographical distribution, and to act as a host for projects initiated by, for example, County Administrative Boards.

In 2024:

- We initiated and restored a total of 242 hectares of wetlands at our own land by ourselves or in collaboration with other.
- In addition, 155 ha of peat extraction was reprocessed.



The diagram shows the change in re-wetted area from 2021 to 2024. The Y-axis indicates the area (ha), with dark green bars representing the re-wetted area by SCA and light green bars representing the re-wetted area in collaboration.

The photo show a restored wetland on SCA land.

SCA's Species Commitment

SCA has an ambition to improve habitats that are important for species that are disadvantaged by forestry. This will help us achieve even greater precision in our work to protect biodiversity within our forest holdings.

- In collaboration with the SLU Swedish Species Information Centre, we have identified 203 species that are negatively affected by clear-cut harvesting. These include certain fungi, mosses, lichens, insects and birds. We have also identified 11 different habitats that these species are associated with.
- Many of the identified species have specific requirements for their habitat and may need different types of targeted measures. Some of the species are also ÅGP species (see next slide).
- In 2022, work begun to direct efforts to the landscapes where we know that ÅGP species are present. Not only for nature conservation areas such as our voluntary reserves, but also to production stocks where clearing and thinning are adapted to the needs of the species in question.

	Habitat category	Number of Species Commitment
1	Coniferous forest with long-term continuity of living trees	40
2	Coniferous forest with long-term continuity of dead wood	87
3	Open pine forest on sandy soils with continuity of living trees	16
4	Coniferous or mixed coniferous/deciduous forest on nutrientrich soils with continuity of living trees	15
5	Pine forest with continuity of dead wood	28
5b	Low-productive forest due to shallow soil / dry conditions	10
6	Forest with predominantly deciduous species and presence of dead wood	40
7	Forest recently impacted by fire	10
8	Forest on humid or wet soils, often adjacent to streams and lakes	41
8b	Low-productive forest due to wet conditions	16
9	Living and dead trees with high exposure to sunlight	10
10	Species have other habitat needs that require location specific measures	11
11	Detailed information on habitat requirements are missing	4
	Total (One Speciec Commitment kan be linked to more than 1 habitat)	328

* Particularly prioritized habitats

Action Plans – ÅGP – for endangered species and habitats as well as SCA's Species Commitment*

Some endangered species found in our forests depend on disturbances to survive and are disadvantaged in environments that are set aside to develop freely. As natural disturbances do not often occur today, we can use targeted initiatives to benefit many species of interest in nature conservation using relatively simple measures. These measures lead to improved conditions for these species as our efforts are prioritized in areas with a known presence. Prioritization is conducted in collaboration with authorities and/or non-profit organizations.

73,000 ha of productive forest have been identified within 10 landscapes where several known occurrences of specialized Species Commitment exist today and which are dependent on pine and deciduous forests.

In 2024:

- 450 hectare of production forest land has been restored in the dedicated landscapes with several specialized Species which depend on pine and deciduous forests. We prioritize nature conservation measures, such as prescribed forest burning, in these areas where the species are, to achieve the best possible nature conservation benefit. Through greater precision in nature conservation work, the restored habitats thus connect today's habitats so that the functionality of the landscape improves over time through higher quality, larger living spaces and better dispersal opportunities.

In 2025 we will identify more landscapes which benefits for example:

- White-backed woodpecker (*Dendrocopos leucotos)* and *Pulsatilla vernalis*
- *Baptria tibiale* and *Lycaena helle* (butterflies)

* All ÅGP species are also included among SCA's Species Commitment.

Health and safety for our forest contractors

Everyone who works on behalf of SCA Skog must have good working conditions and a safe and secure work environment. This means Swedish collective agreements are in place, and that the work environment is safe and complies with prevailing law. To ensure this, SCA has since 2017 visited employees working for our contracted companies and requested that they anonymously complete a questionnaire. Our greatest focus is on new contractors and contractors where we believe there is a risk that shortcomings may occur. The survey are conducted together with the Swedish union of forestry, wood and graphical workers (GS). The responses helps us in our efforts to offer good working conditions and a safe work environment.

Follow-up in 2024 (2023)

- Number of teams visited: 58 (79)
- Number of individuals who answered the anonymous questionnaire: 237 (310)
- The survey resulted in a few shortcomings that were all classified as of a less serious nature. The trend is positive, but the shortcomings must be further reduced.

In the event of discrepancies, these are reported to the relevant contractor with the requirement that action should be taken. In the event of serious discrepancies, the contractor’s activities must be stopped until the necessary action has been taken or alternatively the business relationship is terminated.

Follow-up through auditing

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Internal audit

SCA Skog is certified in accordance with ISO 14001. This entails a requirement to perform internal audits of our operations. These audits are performed each year by appointed employees. This applies to all organizational functions, and we conduct spot checks in different geographic areas.

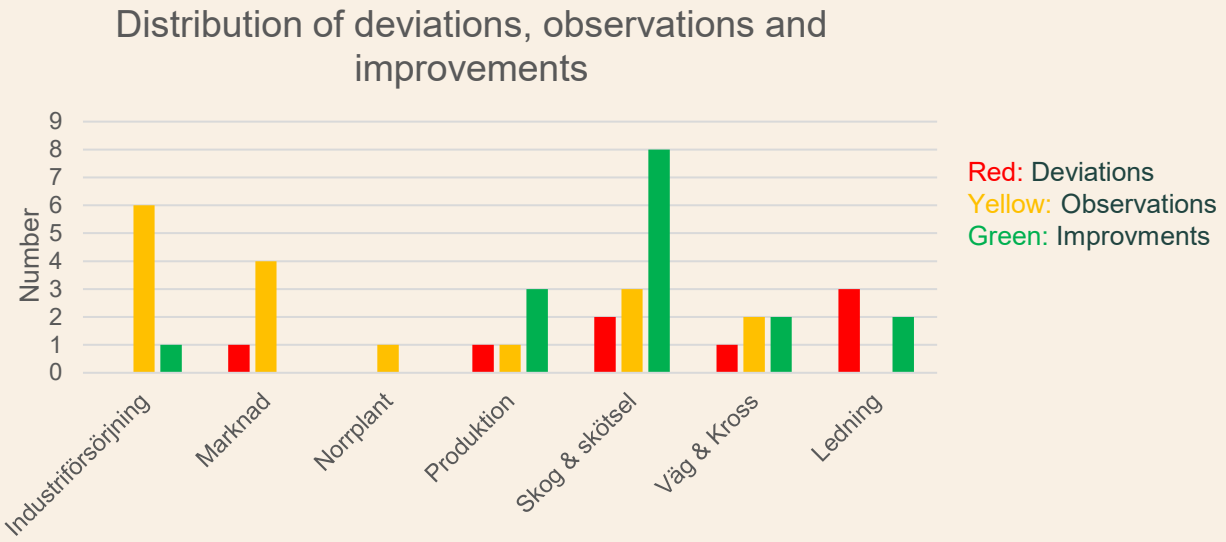
The requirements of our FSC and PEFC forestry standards also apply to these audits, as do all laws and regulations that apply to us. The result of the audit is reported to top management and the work with corrective actions is regularly monitored.

Our internal audit has a central role in our improvement efforts and generates improvements each year.

Diagram translation (Swedish components)
- Industriförsörjning – Industrial supply
- Marknad – Market
- NorrPlant – NorrPlant tree nursery
- Produktion – Production
- Skog & Skötsel – Forestry & Management
- Väg & Kross – Road & Crushing
- Ledning – Management

Summary 2024

A summary of discrepancies, observations and improvements:	8 discrepancies, 17 observations, 16 improvements
Total time spent (excl. travel and planning) and number of auditors	Approx. 204 hours and 10 internal auditors



External audit

Within the framework of our FSC (FSC® C004466) and PEFC (PEFC/05-23-131) forest certification, we are continuously audited by external auditors via our certification body. This means that we are followed up at least annually by an independent third-party auditor, who in turn verifies that we live up to all the requirements that we have committed to follow. The audit lasts for about two weeks and includes review of governing documents as well as field visits and interviews.

The results of each external audit provide information on whether the auditor has discovered deficiencies that we as certificate holders need to address in order to maintain the quality required by the standards.

In addition to the external forestry audit at SCA Skog, SCA Skog's chain of custody certification in accordance with FSC (FSC® C018408) and PEFC (PEFC/05-31-292) is also audited, as well as the ISO 14001 environmental management system.

Summary 2024	
Findings	1 major deviation and 5 minor deviations. The major deviation concerned PEFC requirement 002:5 Appendix 2 The Tract Directive Content requirements. In other respects, deviations are linked to FSC 9.4.1 Follow-up of HCV changes and FSC 6.7.3 and PEFC 002:5, 3.10.2, 3.11.3 Prevent driving damage in edge zones and ISO 8.2 Emergency preparedness and response and ISO 9.2 Internal audit.
Root causes and improvement work:	The root cause of the larger deviation was linked to a lack of leadership regarding follow-up of previous deviation. Shortcomings in the handling of previous deviations have now been rectified. Essentially, the minor deviations are linked to a lack of self-monitoring and reporting from production to tract planning in the event of deviating handling of the Tract Directive. Tract planning received good reviews for the planned areas visited during the audit.

Major changes during the year

Major Changes in 2024

- During the year, there has been a continued high number of complaints about planned consideration for protected species and some forest-dwelling birds. A large part of the comments come from relatively few actors, who instead send many complaints. Most of those who complain have developed templates for legally arguing against logging and appealing the Swedish Forest Agency's decision. Consideration rules based on the Species Protection Ordinance are still under development and our routines for consideration of species have been adapted and we follow both the authorities' various applications and legal developments.
- During the year, many joint plans with the reindeer herding have been carried out. The joint planning has been carried out in a good spirit with several Sámi communities. In several villages, however, co-planning has resulted in protracted processes where the proportion of measures that reach consent has been remarkably low. SCA has therefore clearly informed the Swedish Sami National Association (SSR), which is also a member of FSC, during the year, that changes to the Swedish forestry standard are required to achieve a more functional co-planning process for both parties.
- Several activities have continued to be carried out to benefit biodiversity. This applies, for example, to action programmes for endangered species and the restoration of wetlands. During the year, SCA's nature conservation strategy was updated for launch in 2025.

More information

If you wish to know more about SCA Skog and our forestry operations, please visit our web page www.sca.com/en/forest/scas-forests or find out more in our annual and sustainability reports.

If you wish to contact us, please send an email to info.skog@sca.com.