Uppsala kommun

Activating governing document

Date:
2025-01-27

Registration number:
KSN-2024-01503

Decision makers:
Municipal Council

Document managers: The Municipal Executive Board (KS)

Environmental and Climate Programme

Översiktsplan

Mål och budget

Verksamhetsplaner och affärsplaner

Program

Handlingsplaner och övriga planer

Table of contents

Introduction

Uppsala Municipality's environmental and climate programme is part of the municipality's long-term action for sustainable development.

The program is one of the municipality's six environmental programs:

1. Waste Management Plan – Programme for a Circular Uppsala Without Waste
2. Energy Programme 2050
3. Action Plan for Environmental Noise
4. Environmental and Climate Programmes
5. Water programme
6. Action Programme for Nitrogen Oxides, Uppsala Municipality's Action Plan for Air Quality for the period 2022–2027.

The programme is based on the challenges described in:

- the national environmental quality objectives
- the state of the environment in Uppsala, as outlined in the Regional Development Strategy
- Uppsala's Comprehensive Plan.

The focus of the Environmental and Climate Programme is:

- a non-toxic environment and sustainable resource flows
- reduced climate impact
- limited societal impact from the effects of climate change

The objectives are framed from a municipal geographical perspective where municipal activities are a part.

Purpose

The environment and climate are complex areas governed by several different programmes and action plans. The main purpose of the Environmental and Climate Programme is to serve as a cohesive and comprehensive platform for the municipality's strategic environmental and climate action. The programme outlines common starting points for prioritising and planning Uppsala Municipality's initiatives in this area. Furthermore, it clarifies the direction of Uppsala Municipality's long-term environmental and climate initiatives, aiming for a non-toxic environment with sustainable resource flows, climate change action, and climate adaptation.

Scope

The programme is aimed at all committees and company boards in Uppsala Municipality. The action plan attached to the programme sets out priority actions for its implementation.

Some areas are governed by other programmes and are therefore not addressed in the Environmental and Climate Programme. This applies, for example, to air quality and water. Additionally, some areas mentioned in the programme are also governed by

other programmes. This includes overarching energy and transport issues, which affect aspects beyond the environment and climate.

The Environmental and Climate Programme should therefore be seen as a complement to other programmes and action plans (see the section *Related Documents*).

Responsibility, implementation, follow-up and dissemination

The municipal executive board is responsible for the programme's implementation, coordination, follow-up, and dissemination.

All committees and boards are responsible for integrating environmental and climate efforts into their activities and conducting climate impact assessments in decision-making. They also have an operational responsibility to contribute to the programme's coordination, follow-up, and target fulfilment.

The milestones are designed so that all municipal activities can contribute to achieving the overall objectives, albeit to varying degrees. A dedicated action plan has been developed to clarify the municipality's measures for achieving the programme's objectives and milestones. See Action Plan for Environmental and Climate Programme. This action plan outlines the measures and defines the division of responsibilities between committees and company boards.

Collaboration, innovation, and procurement have been identified as key enablers for meeting the programme's objectives.

Collaboration: Collaboration is essential for creating a sustainable Uppsala. Uppsala Municipality works with residents, civil society, academia, and the local business community to mobilise everyone who lives, works, and stays in the municipality in climate change action. This collaboration is crucial for achieving Uppsala's environmental and climate objectives. Additionally, environment- and climate-driven business and operational development can be fostered through effective partnerships between the municipality and the local business community, leading to new green jobs.

Innovation: Societal changes are needed to address environmental and climate challenges, requiring new ways of leading and working. Therefore, innovative methods and processes are central to Uppsala's climate initiatives. The municipality's innovation efforts aim to identify, implement, and scale up solutions to societal challenges in areas such as climate, energy, and the environment. This work integrates the municipality's core mission with an ambitious business and job development strategy.

Procurement: Uppsala Municipality strategically and proactively works to reduce climate emissions and promote sustainable resource flows in procurement and purchasing. When entering into agreements, the municipality imposes environmental and climate requirements on suppliers. As a result, suppliers also contribute to achieving the municipality's environmental and climate objectives, as well as the national environmental targets and, ultimately, the Agenda 2030 goals.

Uppsala Municipality's environmental and climate objectives

Following is a description of Uppsala Municipality's overall environmental and climate objectives:

- A non-toxic environment by 2050 and sustainable resource flows
- Climate-neutral Uppsala by 2030 for a climate-positive Uppsala by 2050 at the latest
- A climate-adapted Uppsala by 2040.

The associated milestones are also described. They will speed up the realisation of the overall objectives.

Overall objective – A non-toxic environment by 2050 and sustainable resource flows

Reducing the use of and exposure to hazardous chemicals is one of the greatest global and local environmental and health challenges of our time. Substances with hazardous properties are found in places where they do not belong – in human bodies, plants, animals, seas, lakes, and land. Children are particularly vulnerable. Research shows that several of the chemicals found in food, textiles, furniture, packaging, cleaning and hygiene products, building materials, and more have negative health effects on humans, animals, and nature. The negative health effects cause both significant personal suffering and economic consequences for society.

Within the framework of the overall objective, Uppsala Municipality contributes to achieving Sweden’s national environmental objectives with a focus on a non-toxic environment:

The presence of substances in the environment that have been created in or extracted by society shall not threaten human health or biodiversity. The concentrations of contaminants are close to zero and their impact on human health and ecosystems is negligible. The concentrations of naturally occurring substances are close to background levels.

As a supervisory authority, the municipality monitors contaminated areas and remediates those for which it is responsible, in line with the overall objective. The municipality is also responsible for monitoring groundwater quality within its geographical area.

The municipality drives progress by:

- setting requirements linked to the objective when purchasing goods and services
- contribute to substances hazardous to the environment and health are not used on the municipal land
- informing those who live, work and spend time in Uppsala Municipality about the need to work together for a toxic-free environment.

Finally, the municipality ensures non-toxic constructions by setting requirements for environmental assessment systems and certifications, such as those from the Swedish Green Building Council, CEEQUAL, BREEAM, or similar, in its construction projects and land allocations.

A sustainable resource flow refers to how we use and manage natural resources in a way that is economically, socially, and environmentally sustainable. This means striving to minimize waste, reuse and recycle goods and materials, and use renewable resources as much as possible. Sustainable resources are non-toxic from the start, allowing for safe reuse and recycling.

The municipality promotes sustainable resource flows internaly by:

- reusing furniture within municipal operations
- using recycled materials in municipal construction projects
- reusing IT products within municipal operations and returning IT products to suppliers
- develop support in the procurement system to enable better choices.

Additionally, the municipality acts as an enabler for increasing reuse and material recycling for Uppsala's residents and businesses by:

- operating recycling centres
- running the second-hand store Återbruket
- bringing together circular businesses and activities in multi-hubs
- provide access to the property-near collection.

The overall objective aligns with Sweden's national efforts toward transitioning to a circular economy and achieving several global sustainability goals within Agenda 2030. Additionally, this objective is managed within the framework of the municipality's waste plan, including measures to reduce waste and increase reuse.

Overall objective – A climate-neutral Uppsala by 2030 for a climate-positive Uppsala by 2050 at the latest

Uppsala will be a climate-neutral welfare municipality and a regional, national and international hub for climate change action. Uppsala will be climate neutral by 2030 and climate positive by 2050 at the latest. The climate transition must align with Agenda 2030's overarching principle: *Leave no one behind*.

Climate-neutral Uppsala by 2030 means that:

- Greenhouse gas emissions will be reduced at a pace consistent with the Paris Agreement's goal of limiting global warming to no more than 1.5°C. In Uppsala, this requires an average reduction of 10–14 per cent per year between 2020 and 2030.
- Total greenhouse gas emissions in the municipal geographical area may not exceed 28 per cent of emissions in 2020[1] or 283 kilotonnes of CO2e in 2030.
- Net emissions must be zero by 2030. This means that greenhouse gas removals (negative emissions) must equal or exceed the remaining emissions. However, negative emissions cannot replace necessary emission reductions but serve as tools for achieving climate neutrality and climate positivity.
- The climate neutrality target includes emissions from electricity and heat consumption, transport, agriculture, industrial processes, and long-distance travel by Uppsala residents.

Negative emissions can occur within the municipality's boundaries through, for example, the uptake of carbon dioxide in forests and land, the capture and storage of carbon dioxide from the combustion of biofuels (bio-CCS) and carbon sequestration in building materials, for example by building with wood.

Climate-positive Uppsala by 2050 means that:

- Greenhouse gas emissions in the municipal geography will continue to decrease at the same rate after achieving carbon neutrality.
- Negative emissions within the municipal geography will be maintained at levels exceeding remaining greenhouse gas emissions.
- The climate positivity target also includes consumption-based emissions. This includes, among other things, emissions from the construction sector and the consumption of goods and services from Uppsala's residents and workers.

To reduce emissions in line with the Paris Agreement, Uppsala has a limited emissions budget until 2100. This emissions space is calculated based on an average 12 per cent annual reduction, starting from 2020 baseline emissions, measured in carbon dioxide equivalents (CO_2e). The total emissions allowance for Uppsala's municipal geographical area between 2021–2100 is 7,622 kilotonnes of CO_2e. This budget must not be exceeded. If emissions are too high one year, reductions must be greater the following year to compensate.

[1] Based on a normal year adjusted value of 1,016 kilotonnes of CO2e in 2020 and an average emission reduction rate of 12 per cent per year during 2021–2030. Compared to 1990, emissions will have been reduced by 79 percent by 2030.

Uppsala's emission allowance

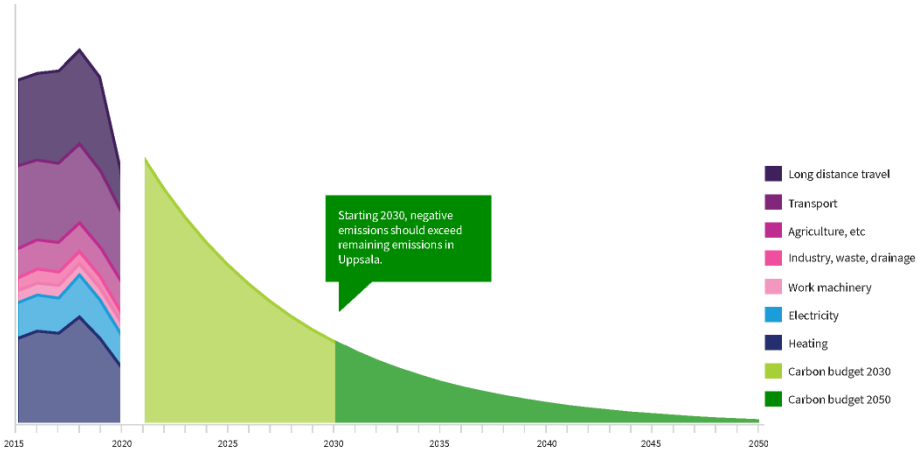

Figure 1. Greenhouse gases, thousands of tonnes of carbon dioxide equivalents from Uppsala's municipal geographical area. The graph shows historical emissions 2015–2020 and targets for emissions 2021–2050.

At the same time as emissions must be reduced, Uppsala's population is expected to grow from 220,000 to 318,000 between 2020 and 2050. Achieving this substantial reduction in emissions requires major societal changes and innovative solutions—both technical and organizational.

To achieve climate neutrality, fossil-free energy use and fossil-free transport and machines are prerequisites. At the same time, we need to reduce energy use for electricity, heating, and transport to make fossil-free and sustainable energy available to the sectors that need it most. Important tools are energy efficiency, flexible electricity use and consolidation (also known as groupage) of transport.

To achieve climate positivity, emissions from the construction sector must be reduced. By making better use of existing buildings and infrastructure, as well as choosing less climate-intensive materials for renovations and new construction, the climate impact of the construction sector can be reduced. By making it easy to do the right thing, Uppsala's residents and businesses can make sustainable choices to reduce their climate impact from consumption.

The overall objective supports and contributes to international and national goals and frameworks such as:

- The UN Climate Convention, which concerns stabilising the concentration of greenhouse gases in the atmosphere at a level that does not entail a dangerous disturbance of the climate system.
- The Paris Agreement, which states that the global average temperature should be kept well below 2 degrees C compared to pre-industrial levels and that efforts should be made to limit the temperature increase to 1.5 degrees C.
- UN Sustainable Development Goals – Agenda 2030, 17 global goals for the three dimensions of sustainable development: economic, social and environmental sustainability.
- The EU's goal of limiting global warming and obtain climate neutrality.
- Sweden's long-term climate goal of achieving net-zero greenhouse gas emissions by 2045 at the latest, followed by negative emissions.

Overall objective – A climate-adapted Uppsala by 2040

By 2040 at the latest, Uppsala's resilience and adaptation to the predictable consequences of climate change by 2100 will be strengthened. This ensures that major negative impacts on life, health, property, and nature will not occur because of climate change.

A Climate-adapted Uppsala by 2040 means that:

- Uppsala must be adapted to cope with 100-year rainfall events and 200-year floods in the Fyrisån River, without significant negative impacts on important societal functions and larger building clusters.
- The municipality must be equipped to handle heatwaves without harmful consequences for life and health, particularly for vulnerable groups.
- Risks from landslides, landslips, and erosion must be managed in vulnerable areas to prevent significant negative impacts on life, health, property, and nature.
- The supply of drinking water must be secured with a multigenerational perspective.
- Other climate-related risks, such as those related to drought and their effects on ecosystems, must be identified and addressed as far as possible.

Like most cities and communities, Uppsala's design amplifies the effects of climate change. For example, large areas of hardened surfaces and dense buildings can exacerbate the impacts of heat waves. In urban environments, heat islands occur when hardened surfaces absorb heat during the day and radiate it out, leading to significantly higher temperatures compared to surrounding areas, which do not cool off at night. Increasing the proportion of vegetation is essential to enhancing access to cool outdoor spaces and mitigating the effects of heatwaves, particularly in areas vulnerable to heat islands and negative effects on people's health. Planting trees in the built environment plays a crucial role in the city's climate adaptation. Trees contribute to:

- shadow
- water delay
- biodiversity
- better air quality.

Other green solutions, such as façade greenery and ground-cover plants, also provide coolness and shade.

Hardened surfaces and dense buildings in Uppsala's urban areas also exacerbate the risk of flooding. Uppsala has been designated by the Swedish Civil Contingencies Agency (MSB, as of 1 January 2026 the Swedish Civil Defence Agency) as an area with significant flood risks, both from torrential rain and from the Fyrisån river that flows through the city. Additionally, Lake Mälaren poses a flood risk. Preventive flood management is a priority area for Uppsala's climate adaptation.

For torrential rainfall, the focus is on managing increased precipitation and preventing damage to important societal functions and large building clusters.

For high river flows in Fyrisån, the emphasis is on reducing flood risks by adapting infrastructure to allow more water to flow through. Ongoing planning and actions must be based on systematically identifying and prioritizing risk areas.

A general mapping from the Swedish Civil Contingencies Agency (MSB) and the Swedish Geotechnical Institute (SGI) identifies potential risks related to landslides, erosion, and landslips in Uppsala.

The forthcoming Comprehensive Plan will describe climate-related risks and outline measures to mitigate potential damage in both existing and future buildings. Some existing structures may need additional protection, as risks tied to stability are expected to increase in a changing climate. If high-risk areas outside municipal control have a major societal impact, active dialogue with the landowners is essential to address these risks.

Climate adaptation means ensuring preparedness for extreme weather events and adapting the physical environment to ongoing and future climate changes. Uppsala's activities on preparing for extreme weather is managed within the Crisis Preparedness and Civil Defence Programme.

The built environment plays a crucial role in achieving the overall objective of a climate-adapted Uppsala. Uppsala's Comprehensive Plan provides guidance for planning and implementation, such as detailed planning and building permit reviews. In the current 2016 comprehensive plan, climate adaptation goals are clearly outlined, reflected in the land-use map and overarching objectives for all land and water areas in the municipality. The new comprehensive plan, scheduled for 2028, will assess and address climate-related risks—such as flooding, landslides, and erosion—in the built environment and propose methods to reduce such risks.

Securing access to drinking water is a key part of Uppsala’s climate adaptation strategy, governed through the municipality’s Water Programme and Water Service Plan.

The municipality strives to maintain high biodiversity, which strengthens the resilience of green areas to climate impacts such as drought, flooding, and diseases. Green spaces play a vital role in mitigating the consequences of climate change in urban areas and protecting buildings and residents. Biodiversity and ecosystem services in green spaces are strengthened, among other things, through the utilization of guidelines for Uppsala’s parks and the Guidelines for Nature Conservation and Ecological compensation in the event of land use changes.

The climate adaptation efforts have positive synergies with other societal goals, such as:

- a pleasant and more attractive urban environment
- increasing opportunities for recreation
- strengthening biodiversity
- improving air quality
- reducing noise
- enhancing stormwater management
- public health.

Many actions taken to improve the environment and make the municipality more attractive also help society adapt to climate change.

Climate adaptation efforts must integrate justice and gender equality perspectives, addressing the needs of vulnerable groups, socially vulnerable areas, and individuals. This requires careful consideration of potential conflicts of interest and active efforts to prevent measures that could contribute to or exacerbate existing injustices and vulnerabilities.

Through this work, Uppsala Municipality contributes to national goals for developing a sustainable, robust society that actively addresses climate change. The municipality also supports goals in the EU's adaptation strategy and the global adaptation goals outlined in the Paris Agreement.

Milestones

Uppsala Municipality has set milestones to support the broader objectives of achieving a non-toxic environment by 2050, sustainable resource flows, A Climate Neutral Uppsala by 2030 for a climate-positive Uppsala by 2050, and A Climate-Adapted Uppsala by 2040. These milestones are designed to accelerate progress towards a sustainable society.

Milestone 1 – Solar Power

Within Uppsala Municipality's geographical area, about 100 megawatts of solar energy will be installed by 2030. Uppsala Municipality will ensure that municipally owned properties have solar energy systems by 2027, where possible.

Origin and purpose: This milestone aims to accelerate progress toward the overall objective of a climate-neutral Uppsala by 2030 and a climate-positive Uppsala by 2050 at the latest. Expanding Uppsala Municipality's solar energy promotes the development of renewable energy production.

Scope: The milestone refers to the installed capacity of solar energy within Uppsala's geographical area and on municipally owned properties.

Conditions for implementation: This milestone requires both municipal companies and committees to work towards expanding solar energy on their properties and for the municipality to support expansion within society at large. To achieve this goal, all major property owners must systematically assess roofs and other potential surfaces, ensuring the construction of several large-scale solar power installations annually. Contributions from all stakeholders—including homeowners, tenant-owner associations, and companies that own their properties—are essential.

In addition to rooftops, already-developed areas and construction sites should be prioritized for solar power installations.

Milestone 2 – Transport and machinery

Emissions from transport and machinery in Uppsala will be reduced by decreasing the need for transport and transitioning to fossil-free fuels.

The municipality's vehicle fleet and procured transport services must be fossil fuel-free. The municipality's own and procured machinery will also be fossil fuel-free by 2027. By 2030, electric, hydrogen, and biogas-powered vehicles and machinery will constitute:

- At least 75% of the municipality's own and procured light vehicles.

- At least 50% of the municipality's own and procured heavy vehicles and machinery.

Origin and Purpose: This milestone aims to ensure progress towards the overall goal of a Climate-Neutral Uppsala 2030 and a Climate-Positive Uppsala by 2050 at the latest by reducing emissions from transport and machinery while accelerating the transition to renewable fuels.

Scope: The emission reduction target applies to the entire geographical area of Uppsala Municipality. The specified target levels apply to Uppsala Municipality itself, including procured transport and contracts.

Conditions for Implementation: Achieving this milestone requires that all vehicles and machines capable of running on fossil-free energy are refuelled with the appropriate fuel. The transition to fossil-free vehicles and machinery must occur systematically as they are replaced. Additionally, efforts must be made to reduce overall transport demand, for example through shared logistics solutions.

All types of renewable fuels will be needed to reach the goal. According to regional fuel priorities, electric, biogas and hydrogen-powered vehicles and machines should be prioritized and used wherever possible. Ethanol and biodiesel-powered vehicles and machines should be considered secondary options. This strategy promotes a diversified fleet and mitigates risks associated with potential fuel shortages or price increases.

Several factors influence the likelihood of achieving this goal, including:

- The availability and price trends of renewable fuels.
- The expansion of charging infrastructure.
- The development and maturity of the automotive, fuel, and construction industries.

The supply of fossil-free vehicles and machines is increasing, and experience from other municipalities shows that demand from major stakeholders accelerates the transition. Uppsala Municipality can influence this supply by setting clear goals and creating strong market demand.

A key success factor is collaboration—joint development efforts with the local business community, the regional government, and universities, as well as coordinated procurement requirements for fossil-free transport and contracts. Uppsala Municipality will facilitate this transition by expanding infrastructure for fossil-free transport in cooperation with businesses and other stakeholders.

This milestone is supported by multiple policy documents concerning the transport system, primarily the Comprehensive Plan, the Energy Programme 2050, and the Mobility and Transport Programme and Action Plan. Furthermore, the municipality's efforts to reduce transport-related greenhouse gas emissions align with its Action Plan for Improved Air Quality and Reduced Environmental Noise.

Milestone 3 – Energy use

Every year, Uppsala Municipality must reduce its direct energy consumption through energy efficiency measures in properties and businesses to ensure climate neutrality by 2030.

Origin and Purpose: This milestone aims to accelerate efforts toward the overall goal of a Climate-Neutral Uppsala 2030 and a Climate-Positive Uppsala by 2050 at the latest, with a focus on energy efficiency measures. These measures will reduce the municipality's need for energy, such as electricity and district heating, in its operations.

Scope: This milestone applies to Uppsala Municipality's total energy use, including district heating and district cooling, electricity consumption, and purchased fuel for heating. Direct energy use includes purchased and self-produced energy used within municipal operations.

Conditions for Implementation: As Uppsala's population grows, new business premises and housing developments are being built, increasing energy demand. Achieving this milestone requires that all new municipal buildings be constructed to minimize energy consumption during operation. Additionally, energy efficiency improvements in renovations are crucial to meeting the goal.

Milestone 4 – Hazardous substances to the environment and human health

Uppsala Municipality will reduce the presence of substances hazardous to the environment and human health in procured and purchased goods, services, and contracts.

Origin and Purpose: This milestone aims to accelerate efforts toward the overall objective of a non-toxic environment by 2050 and sustainable resource flows, with a focus on phasing out goods that contain substances harmful to the environment and human health.

Scope: This milestone applies to Uppsala Municipality's operations.

Conditions for Implementation: Achieving this goal requires that the municipality's committees and company boards ensure that procurement and purchasing prioritize eco-labelled goods. There are currently several systems and labels for environmental assessment of articles, materials, and chemical products. In the construction sector, systems such as Byggvarubedömningen, Miljövarubedömningen, BASTA, and SundaHus are used for product-level assessments. For entire buildings, certifications like the Nordic Swan Ecolabel and the Green Building Council’s standards are available.

When it comes to services and goods in general, labels such as the Nordic Swan Ecolabel, KRAV, and Good Environmental Choice are commonly used. Since some of these certifications have multiple levels and varying assessment criteria, the municipality must be prepared to work with several different evaluation systems addressing environmental and health risks in parallel.

Milestone 5 – Food

Food purchased and served by operations funded by Uppsala Municipality must be sustainable from a holistic perspective, with a primary focus on organic production, climate impact, local sourcing, animal welfare, and food waste

reduction. By 2030, at least 75 per cent of the food must be organic, and its climate impact must not exceed 1.25 kilograms of CO_2e per kilogram of food purchased.

Origin and Purpose: This milestone aims to accelerate progress toward the overall objectives of achieving a non-toxic environment by 2050, sustainable resource flows, and a climate-neutral Uppsala by 2030, ultimately leading to a climate-positive Uppsala by 2050—with a particular focus on food.

Sustainable food requires a holistic approach where all aspects are interconnected. Uppsala Municipality will take broad measures to create sustainable meals that minimize negative impacts on the climate, biodiversity, and ecosystems.

Food plays a crucial role in Uppsala Municipality's efforts to reduce its climate footprint. By setting ambitious targets for food procurement, the municipality has a significant opportunity to reduce food-related emissions. To protect human health, the environment, and animal welfare, Uppsala Municipality also aims to ensure a high proportion of organic food. Additionally, it is important to promote the sustainable harvesting of natural resources, such as fish stocks.

To support local values, Uppsala Municipality will prioritize locally produced food whenever possible—primarily from the municipality's immediate area and, secondarily, from within Sweden. Key benefits include reduced antibiotic use, improved animal welfare, and strengthened local agriculture. Buying locally produced food also promotes Uppsala's local farming and food supply, which is a prerequisite for the local agricultural sector's climate transition and crisis preparedness.

Reducing food waste is another key priority. Ensuring that purchased food is consumed rather than discarded lowers food consumption overall. In turn, this reduces both the climate and environmental impact associated with food production and distribution. Consequently, food waste from activities funded by Uppsala Municipality must be minimized as much as possible.

Scope: This milestone applies to all activities conducted or financed by Uppsala Municipality. It encompasses both direct municipal food purchases and food procurement for municipal operations.

Implementation Conditions: Achieving this goal requires municipal committees and company boards to ensure that all purchasing and procurement prioritize organic food, food with low climate impact, and locally grown food. This applies across all sectors, including food services, prepared meals, and baked goods. To maximize sustainability benefits and minimize negative impacts, assessments should be conducted for each food category to balance different sustainability factors effectively.

Reducing food waste requires active efforts to minimize losses in kitchens, serving areas, and among consumers.

A key challenge in meeting the organic food target is ensuring a sufficient market supply. Uppsala Municipality aims to drive demand and positively influence the currently limited supply through clear targets and strong procurement strategies. Additionally, organic food is often more expensive than conventionally produced food. To achieve the target, adequate financial resources must be secured.

Systematic monitoring is essential to ensure progress toward the milestone of increasing organic food consumption and lowering climate impact. This applies to

both municipal purchases and procured services. Collaborative development efforts with suppliers will be necessary to meet these objectives effectively.

Milestone 6 – Plastics

By 2030, all new plastic-containing products purchased by Uppsala Municipality must be made exclusively from recycled or renewable plastic.

Origin and Purpose: This milestone aims to accelerate progress toward the overall objective of achieving a non-toxic environment by 2050 and sustainable resource flows. By reducing the use of plastic products made from fossil-based raw materials such as oil and natural gas—and replacing them with products made from recycled or renewable materials—the climate impact associated with energy recovery for district heating production can be reduced.

Scope: This milestone applies to Uppsala Municipality's operations and includes both the municipality's direct purchases and the procurement of services.

Implementation Conditions: To achieve this milestone, municipal committees and company boards must ensure that all purchasing and procurement of plastic-containing goods prioritize recycled or renewable plastic. This milestone is linked to the municipality's Waste Management Plan and Milestone 4, facilitating collaboration between different actors to reach the 2030 milestone.

However, there is a risk that by 2030, no viable alternatives will exist for certain specialized applications of plastics made from crude oil. In such cases, the municipality must actively support the development of substitute materials. Additionally, operational adjustments within Uppsala Municipality may be necessary to phase out and replace crude oil-based plastics effectively.

Milestone 7 – Building and Construction

Each year, Uppsala Municipality must reduce greenhouse gas emissions from completed building and construction projects to ensure climate-neutral building and construction by 2030.

Origin and Purpose: This milestone aims to accelerate progress toward the overall objectives of achieving a non-toxic environment by 2050, sustainable resource flows, and a climate-neutral Uppsala by 2030, ultimately leading to a climate-positive Uppsala by 2050.

Scope: This milestone applies to both municipally owned and land-assigned building and construction projects, including new construction, renovations, and expansions. It covers greenhouse gas emissions occurring both within Uppsala's geographical area and in the production of materials used in these projects.

Implementation Conditions: This milestone is closely linked to Milestone 2, which focuses on reducing emissions from procurement and transport, and Milestone 3, which targets energy efficiency and reduced energy consumption. Additionally, it aligns with Milestone 4, which promotes a non-toxic environment and sustainable resource flows.

Reducing the climate impact of building and construction requires improvements at every stage—from planning and material selection to on-site construction practices. Key strategies include:

- increasing the use of low-carbon building materials, such as wood

- reducing the use of concrete
- using concrete with a lower climate impact
- enhancing material reuse.

To ensure successful implementation, Uppsala Municipality must:

1. Evaluate alternative solutions within existing buildings and infrastructure before constructing new facilities. This helps to:
   - Preserve buildings and avoid unnecessary demolition
   - Increase the utilization rate of existing structures
   - Minimize the need for new construction

2. Measure and monitor the climate impact of building and construction projects. Conducting early-stage climate impact calculations will provide insights into emissions and guide the selection of solutions that reduce environmental impact throughout the project lifecycle. These measures support the municipality's goal of achieving climate neutrality by 2030 and climate positivity by 2050 at the latest.

Milestone 8 – Electricity Grid Capacity

Uppsala Municipality will free up capacity in the electricity grid through power efficiency and flexible electricity use.

Origin and Purpose: This milestone will help achieve the overall objective of a Climate-Neutral Uppsala by 2030 and a Climate-Positive Uppsala by 2050 at the latest. Since 2017, Uppsala Municipality has faced restrictions on the electricity grid supplying power to the area. To ensure that Uppsala and its business community can grow sustainably, all stakeholders must contribute to reducing grid congestion.

By freeing up capacity in the electricity grid, this milestone will enable increased electrification of industry and transport and support the establishment and expansion of operations in Uppsala.

Scope: This milestone applies to initiatives aimed at reducing significant electricity consumption within Uppsala Municipality and fostering collaboration with external stakeholders.

Implementation Conditions: To achieve this milestone, Uppsala Municipality must identify and test opportunities for power efficiency and flexible electricity use. Power efficiency may involve reducing overall electricity consumption by replacing outdated technical equipment with more energy-efficient alternatives or by transitioning from electric heating to district heating. At the same time, flexible electricity use focuses on shifting electricity consumption to off-peak hours when the grid is less congested, thereby reducing strain on the system and ensuring a more balanced energy supply.

The electricity grid and its infrastructure—including legislation, market dynamics, and electricity production—are constantly evolving without a clear endpoint. This makes flexible electricity use crucial to ensuring that power is available when needed. To prevent grid overload, collaboration with external stakeholders is essential. Given the need for cooperation, the uncertainty surrounding the future power system, and the increasing emphasis on flexible electricity use, this milestone is particularly well-suited for test beds, innovation, and collaborative initiatives.

Milestone 9 – Flood risks

By 2030, flood risks associated with torrential rain and high-water flows will be addressed in areas where they have the greatest impact on critical societal functions and larger building clusters.

Origin and Purpose: This milestone aims to accelerate efforts towards the overall objective of a climate-adapted Uppsala by 2040, specifically in terms of flood prevention. The purpose is to reduce the risk of flooding and mitigate its negative societal effects, whether caused by torrential rain or rising water levels in rivers and streams.

Analyses based on flood risk maps have identified structural measures within the built environment that will be most effective in preventing and mitigating floods where the consequences are most severe. The designated measures to be implemented by 2030 will not be sufficient to fully withstand a 100-year rainfall event or a 200-year flow in the Fyrisån River. However, they will have a mitigating effect by reducing flood duration and lowering water depths.

Scope: This milestone focuses on high-priority flood prevention measures that are feasible for the municipality to implement and reasonable concerning other relevant considerations. Addressing flood risks means that measures will be conducted to prevent significant negative impacts.

The building clusters identified are those at the highest risk, where flooding could result in major economic damage, severely restricted accessibility, or risks to human life and health. Large building clusters are defined as areas with 50 or more buildings. However, built-up areas with critical societal functions may also be prioritized, even if they contain fewer than 50 buildings.

Implementation Conditions: Achieving this milestone requires that municipal committees and companies prioritize designated climate adaptation measures in their investment plans and apply for external funding whenever possible. Before implementing any measures, a cost-benefit analysis must be conducted to balance the cost of flood prevention efforts against the potential costs of flood damage.

To facilitate implementation, coordination with existing investment plans should be reviewed. Flood prevention should be integrated into municipal redevelopment projects, such as streets, squares, and sports fields. In areas where the municipality does not have direct control, collaboration with other local actors will be essential.

Milestone 10 – Canopy coverage

In larger urban areas of Uppsala Municipality, the average canopy coverage will reach 30 per cent by 2034. The increase will primarily target areas prone to heat islands and those with low canopy cover, especially where children, the elderly, and other vulnerable groups frequently spend time.

Origin and Purpose: This milestone ensures accelerated progress toward the overall objective of a climate-adapted Uppsala by 2040 at the latest, addressing health risks associated with heat waves in the built environment. The baseline for this milestone is a canopy coverage of 24 per cent in 2024, based on a measurement conducted by the National Board of Housing, Building and Planning.

Scope: The milestone applies to designated heat island risk areas identified in Uppsala Municipality's 2022 mapping, as well as areas with canopy coverage below 15 per cent according to the National Board of Housing, Building and Planning's national analysis from 2023. "Larger urban areas" refer to designated urban zones as defined in the Comprehensive Plan. The goal encompasses land both within and outside the municipality's geographical area.

Conditions for Implementation: To achieve this milestone, the municipality must actively act to increase canopy coverage in designated areas. Since these areas are largely developed, expanding vegetation presents a challenge. Collaboration with other landowners is essential in areas beyond municipal control. This work will align with the municipality’s Guidelines for Uppsala’s Trees.

Follow-up

The Municipal Executive Board is responsible for the programme and thus has overall responsibility for its follow-up and evaluation. Each committee and company board must submit an annual report to the Municipal Executive Board, detailing the results of their work towards the established goals. The Municipal Executive Board will continuously follow up on the programme and the action plan through regular programme reviews. If necessary, the Municipal Executive Board can revise the action plan. The revision will be carried out through a joint preparation process.

Related documents

- Waste Management Plan – Programme for a Circular Uppsala Without Waste
- Energy Programme 2050
- Rural Development Programme for Uppsala Municipality
- Business Program
- Plan for Uppsala's parks
- Policy for Sustainable Development
- Crisis Preparedness and Civil Defence Programme
- Mobility and Traffic Programme
- Regional development strategy and Agenda 20230 – strategy for Uppsala County
- Guideline for passenger transport in service
- Guidelines for Uppsala's trees
- Uppsala's Comprehensive Plan
- Water programme
- Water service plan
- Action Programme for Nitrogen Oxides, Uppsala Municipality's Action Plan for Air Quality for the period 2022–2027

Annexe – Concepts and Definitions

Concept	Explanation
Circular economy	In a circular economy, all products are continuously reused and recycled to their fullest potential, minimizing waste by reducing the need for new items.
Direct activity, direct emissions, direct energy use	Direct activities refer to those within the company itself, while indirect activities take place outside the business, such as at a supplier's premises. Examples of direct energy use include energy consumed by the company's operations for heating and electricity needs.
Power efficiency	Power refers to the energy used at a specific moment and is measured in kilowatts. Improving power efficiency involves implementing measures to reduce power consumption, such as minimizing reliance on the electricity grid and preventing temporary peaks in load. Examples of such measures include managing energy use over time or using energy storage systems, like batteries, to smooth out energy withdrawal from the grid.
Contract	Contracting refers to construction and operating contracts.
Renewable fuels and fuels	Renewable fuels and fuels mean bioethanol (ED95/E85/75), biogas, biodiesel (HVO100, RME100 or other FAME100), electricity, hydrogen or other fuels and fuels made from renewable raw materials.
Renewable plastics	Renewable plastics are plastics that have been made entirely or partly from renewable materials that have been extracted from biomass. Renewable raw materials refer to resources that are constantly being renewed. Some common raw materials are stalks from corn, sugar cane, and cellulose, but it is also becoming increasingly common to use various oils and fats from renewable sources. (Ceurstemont, 2020)
Fossil fuel-free	Fossil fuel-free energy comes from fossil-free energy sources. Fossil fuel-free and renewable energy means bioethanol (ED95/E85/75), biogas, biodiesel (HVO100, RME100 or other FAME100), electricity produced with fossil fuel-free raw materials,

Concept	Explanation
	hydrogen or other fuels made from renewable raw materials.
Climate adaptation	Climate adaptation means equipping and adapting society to the challenges that an increased global average temperature leads to.
Climate-neutral	Uppsala Municipality's definition is based on the EU Commission's definition of climate neutrality for cities (European Council, 2021). Climate neutrality is achieved when annual greenhouse gas emissions have ceased, or are alternatively managed through carbon capture and/or carbon storage (WRI, C40 Cities, ICLEI, 2021) In general, climate neutrality means that the total climate impact of a certain activity, service or product has a net sum of zero. To ensure the carbon neutrality of a service or product, the life cycle of the entire product with materials must be reviewed. See also net zero emissions.
Climate positive	Today, there is no independent standard that describes how businesses or products can become climate-positive. However, there is a standard for climate neutrality ISO 14021:2017, or the PAS 2060:2014 specification, with associated references. For a product, business, or activity to be considered climate-positive, it must first be climate-neutral and then offset any remaining greenhouse gas emissions that, despite achieving neutrality, are still emitted throughout the value chain.
Climate change action	The societal transition needed to be implemented for the earth's temperature increase to be limited to below two degrees, preferably below 1.5 degrees.
Canopy Cover	Proportion of the city's area covered by tree canopy and providing leaf shade. The trees have a climate-equalizing effect, mainly through cooling and shading during heat waves.
Machinery	Machinery is a set of machines intended for individual use in, for example, industry, earthworks or agriculture.
Net zero emissions	According to Sweden's long-term climate goals, the country will achieve net zero emissions by 2045 by reducing emissions by at least 85 per cent from the 1990 level. The

Concept	Explanation
	remaining emissions will be covered by complementary measures. See also climate neutral.
Uppsala Municipality	Uppsala Municipality's entire organization, including the committee and administrative organization and wholly owned municipal companies.
Heat islands	Local heat islands are areas in a city or urban area that are significantly warmer than surrounding land areas. The emergence of heat islands is partly due to that cities and other urban areas have more hardened surfaces that absorb a large part of the solar radiation instead of reflecting it. This means that the local temperature will be higher. The temperature difference between urban and urban areas and surrounding land areas can be over 10 degrees C.
100-year rain	A rainfall with a statistical return time of 100 years. That is a rain of the magnitude that can be expected to occur every hundred years.
200-year flood	A flow in a watercourse with a statistical return time of 200 years. That is, the size of the flow can be expected every two hundred years.