

4. Nature and biodiversity

Present details of the original and/or most recent Action Plan, including any relevant disadvantages or constraints resulting from historical and/or geographical factors which may have influenced this indicator area negatively.

In 2011, Copenhagen prepared a strategy for biodiversity entitled “Room for Nature - **A Strategy for Biodiversity**”.

The goal of the strategy is to profile biodiversity and contribute to its implementation in day-to-day operations and planning. Operation of Copenhagen green areas must be organised with due consideration to biodiversity and to ensure higher biodiversity. Planners must incorporate this consideration of biodiversity in urban development via municipal plans and local development plans.

The City of Copenhagen is taking part in the inter-municipal collaboration 'Green Cities', under which the City is committed to increase biodiversity and to improve vulnerable and rare natural habitats.



The Copenhagen Green Areas

Challenges

The City of Copenhagen sees a great demand for using green areas. The most central parts of the City are particularly under pressure; however, due to population growth and more focus on the special characteristics of green areas, there is also a greater demand for different uses of green areas in the outskirts of the City.

To accommodate this biodiversity as best as possible, the City of Copenhagen has chosen to classify parks and nature areas into two categories: urban nature and urban areas close to nature. There will be different approaches to the work on enhancing biodiversity depending on the category of green area.

In Copenhagen, city parks encompass urban nature. Here the line between city and nature is sharply drawn and biodiversity is low and difficult to improve on account of recreational use, the size of the parks or the isolation of the parks from green corridors. Urban nature is not less important, but the aim is often to accommodate the recreational interests of Copenhageners to a greater extent. Main focus in these areas will be minor local initiatives to improve nature and changes in operations in areas with urban nature which can also interact with recreational interests.

The urban areas close to nature are mainly the large nature areas in the outskirts of the city. Compared with urban nature, urban areas close to nature are characterised as being larger, more coherent and less managed. Urban areas close to nature have a greater potential for obtaining higher biodiversity as these areas already have many of the prerequisites for increasing the number of animal and plant species. Focus is on optimising urban areas close to nature, as well as the spread of species between the large nature areas by means of fauna passages and green corridors.

In this context, climate change adaptation is an important element as increased rainfall, and warm and changed water levels in the seas also put pressure on nature. Animal and plant species must be able to diversify and adapt to their new environment.

Nature areas and parks in the City of Copenhagen are mainly "islands in the urban sea", i.e. surrounded by buildings, paved areas, roads and railways. However, many of the parks may be connected in primary green diversity corridors via fauna passages for example.

Action plan

The action plan for the strategy includes an overview of physical initiatives, knowledge collection and dissemination initiatives. The activities in the action plan will be revised each year.

- **Physical initiatives**
Work is being carried out with large complicated construction projects, e.g. opening buried watercourses and giving watercourses a natural meandering course, as well as creating green diversity corridors throughout the city. Also many small and integrative initiatives are being carried out in green areas. For example, establishing and renovating lakes for amphibians which are being threatened by invasive species. In addition, scrubs are cleared, and cropped plant material is being removed to create open spaces with little maintenance.
- **Knowledge collection**
The strategy is primarily based on a technical report on biodiversity in the City of Copenhagen which was drawn up in 2010. The technical report

includes studies and assessments of 23 specific green areas in the City of Copenhagen as inspiration for work in other green areas, both municipal and privately owned.

Updating of knowledge, including monitoring of species and studies of solutions, is part of the work on increasing biodiversity. It is important to illustrate possible solutions to be able to describe the initiatives that need launching in order to increase biodiversity in a specific area or to build green diversity corridors throughout the city.

The new knowledge must be regularly incorporated in nature administration and in the strategy. New knowledge about green diversity corridors and protected species will be introduced in the municipal plan when revising the plan every four years.

Main priority will be given to nature monitoring of the species in the City's list which are also covered by the requirements on protection and laid down in the EU Directives. This prioritisation is being performed on the basis of a technical assessment of the need of species for monitoring initiatives.

- In 2010, the City of Copenhagen commenced cooperation with the University of Copenhagen to collect knowledge on how to combine climate change adaptation with initiatives for biodiversity, also in densely populated areas of the city. Local drainage of rainwater may create lakes and waterholes which may generate increased diversity. Also initiatives to promote green roofs and facade planting are being considered.
- Dissemination
The City of Copenhagen is very concerned about employees' and citizens' understanding of the strategy, as well as its initiatives, in order to incorporate the strategy as widely as possible. A crucial factor for the success of the strategy is that employees and citizens understand and support the different initiatives which may seem unnecessary and difficult.

It is important that the general principles of the strategy are incorporated in the City's planning work at several levels so that biodiversity is recognised together with considerations for the environment and health.

(max. 1000 words)

Details of those targets achieved or not, to date (within the last 5 – 10 years). Provide a review of how both situations occurred and lessons learned.

As this strategy is very new, there are still no specific examples of implementation of the goals of the strategy. Before the strategy was drawn up, for decades, the work was aimed at promoting nature in the city's parks and nature areas through routine nature administration and administration of parks and nature areas. The strategy is a continuation of this work.

1. *Managing areas designated for nature protection and biodiversity as described above;*

2. Protecting nature in other open areas;

In the City of Copenhagen, most major parks and nature areas are protected by national legislation in the Nature Protection Act. The legislative protection ensures preservation of nature areas and that relevant stakeholders are consulted and have a right of appeal in connection with new initiatives in the areas.

Several of the listings state that management and development of the areas must be laid down in a development plan. The development plans aim at preserving and creating a diverse vegetation pattern with great diversity in the interplay between new planting and existing vegetation.

In the 2002 preparation of new development plans, the City of Copenhagen decided that a park user council for the individual park was to be set up to ensure citizen participation in the development of the areas.

Lessons learned:

Citizens and organisations are very supportive and have taken great interest in this work.

3. Promotion of public knowledge and understanding of nature and biodiversity, particularly among young people.

A prerequisite for the City of Copenhagen to administer the provisions in Annex IV species in the EU Habitat Directive is, among other things, knowledge about how species breed. In 2009 focus was on breeding bats in the green areas of the City. The aim of the study was to identify trees with breeding bats. As localising populations of bats in trees is very demanding this task was carried out with help from voluntary observers. The work was quality assured and carried out in collaboration with the Zoological Museum. This was the first time that this type of survey had been carried out in Denmark together with voluntary observers. The purpose of the mapping was to ensure that the administration is able to consider the animals, for example in connection with the felling of trees.

Lessons learned:

The mapping resulted in procedures for managing bats in the City of Copenhagen. Furthermore, the voluntary participants benefited greatly on a personal level from participating in the project which was also subject to positive attention from media and the general public.

The City of Copenhagen has a number of manned playgrounds where pedagogical staff is present during daytime. Five of these playgrounds are participating in the Nature Detectives project and offering nature guidance and teaching materials to children and their parents, as well as to institutions. At the playgrounds children can learn about nature and explore their surroundings. The playgrounds are, for example, located in disadvantaged neighbourhoods where many citizens have a limited knowledge about nature and rarely move in places other than their own neighbourhood.

Lessons learned:

The project has enjoyed great interest, and local anchoring and commitment is vital for the survival of the project.

In order to disseminate knowledge about nature and biodiversity to the general public, in 2002, the City of Copenhagen built a Nature Workshop called Streyf. The Nature Workshop is located in one of the large nature areas of Copenhagen, *Utterslev Mose*. The Workshop forms the basis for up to 10,000 visiting children and

adults each year. The users of the Workshop are individuals and institutions, and large public events with nature guides are regularly taking place.

Lessons learned:

The popularity of the Workshop demonstrates that the public are very interested in the nature in the park area and that the Workshop provides users, in particular children, with good opportunity to acquire new knowledge about nature in general.

Preservation of old trees and dead wood is another focus area in the operation of the green areas in the City of Copenhagen. Old trees are often habitats for many species, and at the same time, safety issues for people using the parks must be managed, as falling branches are potentially fatal. By felling old trees and through new plantings, the City of Copenhagen has put in considerable effort to inform its citizens; in this connection, preservation and rejuvenation plans for trees have been drawn up.

Lessons learned:

It is important that information about future tree felling and new plantings is provided as planned as the changes might otherwise cause frustration for citizens as well as the employees of the City. Therefore, for several years, large events have been held where children and adults could help plant trees in parks and nature areas.

In connection with the desire to create biodiversity and natural flowering meadows, in 2010, a major nature management event was held where voluntary citizens learned how to scythe grass areas in order to help increase biodiversity. The aim was to create awareness about and interest in green and blue areas in the city, as well as to find new ways of using the parks.

Lessons learned:

Voluntary events may create networks for the City and its citizens. Citizens may participate in a voluntary event either with or without obligation and thereby get to know their local park or nature area better.

Several of the natural habitats of the City of Copenhagen are managed by means of grazing cows, horses and sheep. For example, *Utterslev Græsningsslaug* was created in 2002 to realise an initiative in the development plan for *Utterslev Mose*. *Utterslev Græsningsslaug* owns a flock of sheep which spends almost the entire summer half-year in an area of *Utterslev Mose*. The sheep tend the area in a more nature-friendly way than common lawn mowers. Members of *Utterslev Græsningsslaug* are mainly families with children.

Lessons learned:

Through the presence of sheep in the marsh, families with children and the many visiting daycare institutions in the area have close encounters with animals which are otherwise difficult to see in the city.

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Plans to meet or revise key targets for the future and proposed approach to achieve these.

Biodiversity in the City of Copenhagen must be preserved and improved.

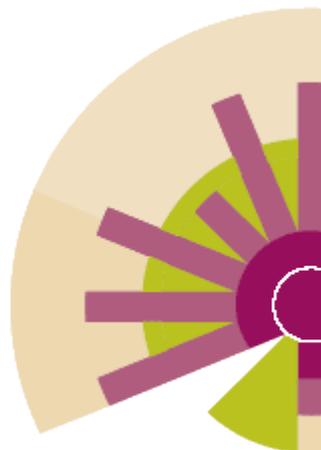
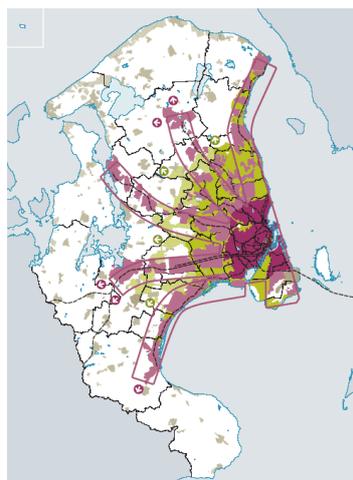
Every four years, the “Room for Nature - A Strategy for Biodiversity” is updated. The action plan is updated annually to ensure ongoing incorporation and evaluation of new knowledge in the area, as well as of activities carried out.

Copenhagen has taken an important step by drawing up this strategy, but it should also be seen as the first step. The strategy must be ambitious but also realistic. Creative thinking is important, and the synergy must be exploited in situations where other projects can benefit biodiversity. Volunteer work and work on climate change adaptation are examples of other focus areas in the City of Copenhagen which may contribute to increasing biodiversity.

To ensure dissemination of knowledge about biodiversity in the City of Copenhagen, guidelines and dissemination initiatives are being prepared for the employees of the City on the operation of parks and nature areas, and the same applies to administrative employees who work in planning; local plans and municipal plans. This ensures internal knowledge-sharing.

Citizens in the City of Copenhagen are informed about biodiversity initiatives through collaboration with local associations, organisations and enterprises which are in contact with the individual parts of Copenhagen.

The City of Copenhagen is a central part of Greater Copenhagen. In 1947 the ‘Finger Plan’ was drawn up to form the framework for urban development in Greater Copenhagen. The built-up-area was only to grow out on the ‘fingers’, with wedges of green areas between the fingers. In 2007 the Ministry of the Environment adopted a revised Finger Plan for cohesion of the green areas in Greater Copenhagen, and this is to determine the development of Greater Copenhagen up to 2017. Possibilities for flora and fauna to spread within these green areas are greatly enhanced with this holistic approach.



Fingerplanen

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