



Baseline for the Global Goals in Denmark

Goal 11: Sustainable Cities and Communities

A pilot project developed by the Danish Architecture Center and Rambøll Management Consulting

Baseline for the Global Goals



2030 PANEL



2030 NETWORK
Danish Parliament's Non-partisan Network
for the UN's Global goals.



4	Foreword
6	About the Project
6	Baseline for the global goals in Denmark
10	What are the global goals and why should we work toward them?
18	Why Goal 11 and the built environment?
20	How the baseline was established
22	Who has been involved?
24	Baseline for Goal 11
28	Target 11.1 Build adequate, safe, affordable housing
34	Target 11.2 Create safe, affordable, accessible and sustainable transport systems for all
40	Target 11.3 Make cities inclusive and sustainable
44	Target 11.4 Protect and safeguard the world's cultural and natural heritage
48	Target 11.5 Reduce the damaging effects of natural disasters
52	Target 11.6 Reduce the adverse environmental impact of cities
58	Target 11.7 Make green public spaces available to everyone
64	Suggestions for new indicators and the expansion of existing ones
66	Recommendations

Foreword

On 25 September 2015 the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). Since then, the Danish government, the Danish parliament, municipal councils, companies and many others have been working to meet these global goals.

In March 2017, the Danish government introduced an action plan for the SDGs, and the Danish parliament established its nonpartisan network for the global goals (the 2030 Network). Currently, the network has 66 members representing all parliamentary parties. In June 2017, the 2030 Panel with its 22 members from the business community, a variety of organisations, researchers, NGOs and more was established.

Several more SDG initiatives have since commenced. Many municipalities are taking action. For example, they have set up a Danish Global Compact Network and developed an SDG accelerator for small and medium-sized businesses, featuring caravans, festivals and educational campaigns nationwide. The government has also recently established a Council for Corporate Social Responsibility and Global Goals.

In this way, the SDGs are developing into an important strategic agenda, not only in Denmark, but around the world. Climate scientists and a host of other researchers tell us that we must take these global goals seriously and turn ideas into action. Moreover, many warn that the situation is urgent. The UN resolution containing the 17 main SDGs is called: Transforming our world: the 2030 Agenda for Sustainable Development.

Three major tasks are required to realise the global goals. First, countries, businesses, etc., need to know where they stand with respect to the various dimensions the global goals address. Baselines for the 17 SDGs and their targets must be developed according to the individual situations in which countries, local authorities and others find themselves.

Next, Denmark must formulate its visions for the future situation in 2030, including how the global goals might be implemented in Denmark, its 98 municipalities and businesses. If the goals are implemented or achieved by 2030, what does that scenario look like in terms of the various dimensions?

Realising Denmark's visions by 2030 will require a roadmap. The mapping process will involve political and managerial decision-making in the government, the Danish parliament, municipal councils, corporate managements and more.

This report represents an initial step in the series of tasks to be undertaken. It forms a baseline for one of the SDGs, Goal 11, which concerns sustainable cities and communities. This and subsequent reports will help to qualify both the work with and the political debate about the global goals, for there is no prescription for their implementation. Having a nuanced vision of where Denmark should begin is one way to start, as this will help explain the particular challenges Denmark must tackle.

I would like to thank those who in the past months have done a monumental and expert job of formulating Denmark's baseline, which we now present as an inspiration to everyone working with these issues. Special thanks go to the Danish Architecture Center, Ramboll Management Consulting, Local Government Denmark (KL), Statistics Denmark, Realdania and the Ramboll Foundation. A pioneering effort has been carried out, and I hope this work will further inspire anyone working with urban development and local communities in Denmark. The project has been funded by the Ramboll Foundation and Realdania, to whom I extend my heartfelt thanks.

Copenhagen, 10 January 2019

Steen Hildebrandt
Chairman of the 2030 Panel

About the Project

Baseline for the Global Goals in Denmark

The project “Baseline for the Global Goals in Denmark” is intended to demonstrate the extent to which Denmark is meeting the global goals – a zero-point measurement indicating where we, as a country, currently stand, so we know where to focus our efforts to create sustainable development. However, this takes more than a measurement. For what exactly are we determining when we measure the global goals?

The global goals are a common global framework for sustainable development toward the year 2030. However, they refrain from specifying how individual countries should go about reaching the goals. Rather, the UN has left it to individual countries to work with the goals in ways suited to their own conditions, legislation, challenges and opportunities. As such, each country – in our case Denmark – is meant to supplement the global goals so that they can be acted on both nationally and locally.



Targets are defined as aspirational and global, with each Government setting its own national targets guided by the global level of ambition but taking into account national circumstances. Each Government will also decide how these aspirational and global targets should be incorporated into national planning processes, policies and strategies.

The 2030 Agenda for Sustainable Development Goals, United Nations, p. 14-15, para. 55

Thus, the first step is to determine what we need to measure to act on the global goals in Denmark – what does adequate, safe, affordable housing or a sustainable transport system mean here? And how do we best measure them?

These are precisely some of the answers the Baseline for the Global Goals project seeks to provide, thus paving the way for Denmark to use the global goals to take strong, collective action on sustainable development – and thus come up with solutions that can inspire all the world.

Who is behind the project

The 2030 Panel took the initiative to develop a baseline for the global goals in order to support the 2030 Network. The 2030 Network is the Danish parliament’s nonpartisan network working on the global goals. To do this work, the network established the 2030 Panel, which consists of representatives from a number of interest groups, knowledge institutions, foundations, companies and civil society organisations.

The Baseline for the Global Goals project has been conducted by the Danish Architecture Center (DAC) and Ramboll Management Consulting (RMC), which also constitute the project group and have been responsible for project management, content and development. Local Government Denmark (KL) and Statistics Denmark are project partners and have thus helped to identify and provide relevant data and to qualify the baseline.

The project has received financial support from the Ramboll Foundation and Realdania, which together with representatives from the project promoters, the 2030 Panel and the 2030 Network comprise the project’s steering committee.

Who is the project for?

The 2030 Network is the primary target group. This serves to set the project’s level of detail, which initially must reflect the national-political and the local level to the relevant extent. The target group thus includes:

- The 2030 Network and other politicians and policymakers from the private and the public sectors wishing to participate in the political debate at the national level.
- Local politicians, decision-makers and officials
- All other stakeholders working with the global goals.

Where to find more information

Denmark has a common portal for the global goals. At verdensmaal.org, you can read much more about the global goals and continually monitor Denmark’s progress implementing them as we approach 2030. On this page, you will also find a description of the Baseline for Global Goals project. The portal is operated by the independent media house World’s Best News (Verdens Bedste Nyheder) and financed by the Danish government. In this project, we have used the Danish translations of the global goals as formulated on the portal.



How have we done?

Through a rigorous and inclusive process, we have studied how best to supplement the global goals and measurements that make sense in Denmark.

To achieve this, we are finding new, supplementary SDG indicators that pertain to Denmark and ensuring that data obtained is accurate and of high quality. We have upheld the goals, targets and indicators as formulated by the UN (in the official Danish translation from verdensmaal.org) along with the new indicators. As a whole, they form the basis for the project's objective of creating a baseline for how Denmark is to reach the global goals.

Why a baseline?

The global goals provide us with a common language and a common framework for creating holistic solutions across professional, political and geographical bounds. The baseline is intended to make this language and framework a foundation for decision-making and for prioritising national and municipal efforts where they make sense. The baseline is neither a recipe for nor an assessment of success or failure in any given area. Rather, it is to serve as a decision-making basis – are we actually where we want to be, and where do we want to go?

A pilot project and a method

The project has used Goal 11 on sustainable cities and communities” as a pilot. In the project, we have gathered our experiences and developed a method for establishing new baselines for the other 16 SDGs. The global goals are not meant to be regarded or tackled individually, their being interconnected, just as the world they reflect is. The distinctions simply serve to make them more tangible.

Drawing on this initial baseline, we, as project participants, also point out what new data might be collected to make the baseline an even stronger foundation for action in the long term.

The baseline is being developed in a way that over time will enable us to monitor Denmark's progress reaching the goals, nationally and – where possible – locally. As such, it will also be possible to integrate new indicators and new data.

The project will ultimately produce a dashboard targeted at the Danish municipalities, so that they can follow the effects of their own efforts as well as compare themselves with other local authorities or with the national averages.

On the last page of this publication, we have compiled our recommendations for anyone working with the global goals.



National reports will allow assessments of progress and identify challenges at the regional and global level. Along with regional dialogues and global reviews, they will inform recommendations for follow-up at various levels.

The 2030 Agenda for Sustainable Development Goals, United Nations, p. 35-36, para. 77

What are the global goals and why should we work with them?

The global goals, or SDGs, are a global movement. They provide a direction and a common framework for the global sustainable development effort toward 2030. However, they tell us nothing about how to take action. The SDGs are neither a toolbox nor a recipe for action – we have to find the recipe ourselves. That’s the whole idea!

In the official development agenda for the SDGs, the member countries state the importance of locally adapting and of scaling the global goals.



All of us will work to implement the Agenda within our own countries and at the regional and global levels, taking into account different national realities, capacities and levels of development and respecting national policies and priorities. (...) Regional and subregional frameworks can facilitate the effective translation of sustainable development policies into concrete action at the national level.

The 2030 Agenda for Sustainable Development Goals, United Nations, p. 9, para. 21

Thus, the UN wants us to work with the global goals nationally, regionally and locally. The development of a Danish baseline is one step along the way, as we work to supplement the global goals with new indicators adapted to our own national and local culture and to our economy, legislation and regulations.

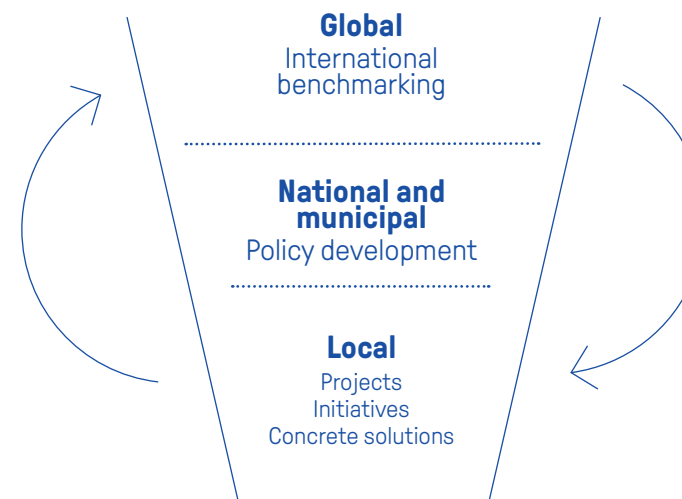
Above all, the targets set under each goal are formulated with a global perspective focused on global challenges. At the global level, indicators must enable comparisons between countries – provide benchmarks that make it possible to compare countries against the same parameters. This is also the purpose of the UN official indicators. However, if we go down a notch to the national level and down to national and local challenges, a number of official UN indicators offer no meaningful basis by which to prioritise national and local efforts in Denmark.

Take, for example, how we measure CO2 emissions, a factor on which several targets are focused. At a global level, target 11.2 to create safe, affordable, accessible and

sustainable transport systems for all is measured according to what percentage of the population has access to public transport, as distributed by sex, age and people with disabilities. Public transport is a good indicator of sustainable transport, when we compare countries globally.

However, at a national level, we must also consider aspects like prices, the CO2 emitted from various transport modes and the distance to and frequency of the public transport, all of which we address in the project. And down at the municipal and local levels, even more minute indicators would be in place – for instance, conditions for cyclists, the design and the type of public transport, etc.

We are maintaining the UN indicators so we can continue to benchmark ourselves internationally. However, the supplementary targets are Danish, and therefore underpin our national and local solutions.



In this project, we have primarily focused our attention on the national level. National politicians and, especially when it comes to Goal 11, municipal politicians make up the project target group and will be the ones using the baseline. This also naturally limits the scope of the indicators, as well as their types – there are many more relevant indicators than those used in this project. However, they belong at the local level, e.g., in local projects, where a completely different level of detail is possible.

Translating indicators to fit conditions at the national and local levels does not, however, preclude us from working across countries and regions and rising to the challenge together as an international community. We need to act on all levels from the global to the local. And from the local to the global. Local efforts need to be made in every country, city and local community if we are to create global change and inspiration between countries.

All the goals are interconnected

The global goals reflect the chaotic and complex reality in which we live. Although split into 17 specific goals, no one can stand alone. Each affects the other, and each can only be tackled in the context of the others. We cannot discuss equal access to education without also addressing equal opportunities, and we cannot move to make cities and local communities more sustainable without focusing on natural resources – how they are procured, used and disposed of.

On the other hand, we need to break down the global goals somehow in order to manage the myriad efforts necessary for sustainable development. By dividing the Agenda into 17 specific SDGs, we can “attack” the world’s challenges from a number of sides and thus generate joint action.

Leave no one behind – a focus on the social

The global goals all concern how to create more sustainable development toward the year 2030 – development that focuses not only on the environment but also on social sustainability and on the economy as paramount to creating more social and environmental sustainability. We must therefore work broadly to improve living conditions worldwide when it comes to issues like poverty, hunger, health, happiness, welfare, human rights, education and much more.

What are the global goals?

The UN adopted the global goals for sustainable development, also known as the Sustainable Development Goals (SDGs), toward the year 2030 in September 2015. All 193 UN member countries are behind them, and the resolution provides that each nation is to develop its own strategy for meeting the goals. There are 17 specific SDGs and 169 targets. They address everything from poverty, equality and hunger to climate, production and health.

The SDGs focus on our global challenges, which we must overcome if future generations are to have a reasonable chance at a good future. This gives us all, as people and as communities, an obligation. However, it also creates a momentum that can strengthen Danish companies, organisations and municipalities – and Denmark as a nation.

If we apply the global goals correctly, they can provide a real impetus for making decisions and prioritising efforts across professional, political and geographical lines. As a common frame of reference, the goals can accelerate sustainable development and minimise the risk of wasting resources on sporadic, individual efforts.

What is a baseline?

A baseline is a zero-point measurement indicating where we currently stand in terms of the UN global goals. The baseline consists of a number of indicators under each target that complement the UN official indicators. By supplementing the UN indicators, the baseline is intended to produce a more meaningful picture of how the individual targets are relevant in a Danish context and of how Denmark is progressing at the moment. The baseline is therefore an overview reflecting how well we are meeting the targets.

How are the global goals constructed?

The UN's 17 SDGs are divided into 169 targets. The targets are more specific objectives for achieving the global goals. This is an example of a Goal 11 target:

Target 11.2: Create safe, affordable, accessible and sustainable transport systems for all. The target focuses on safe, sustainable public transport – particularly for vulnerable population groups such as women, children, people with disabilities and older people.

To measure each target, the UN has designated a large number of target indicators – 232 in all. They are to enable a continuous evaluation of the extent to which we are meeting the global goals. For example, the UN has designated this indicator for target 11.2:

Indicator 11.2.1: Proportion of the population that has convenient access to public transport, by sex, age and persons with disabilities

The indicators, indeed, only indicate how the global goals are being met. Some specific indicators may show that a country is doing well, although the target may be far from being reached. The indicators we use to measure global goals must, in fact, reflect the actual situation. There are no right or wrong indicators, but some provide a more accurate picture than others – and that is exactly the purpose of the project.

The global goals provide a basis on which to create the best possible conditions for all – the fundamental concept being “leave no one behind”. Although many of the global goals originate in physical circumstances (e.g., transport, infrastructure or our resources), the conditions surrounding and the access to them are what lie at the heart of creating social sustainability. By achieving the global goals, we can ensure that everyone has a right to live somewhere safe regardless of financial capability, that women have a right to be safe in places like public urban spaces and that children have access to schooling. This is done through both social and physical efforts.

Things are going great in Denmark – or are they?

Every year, various international organisations evaluate how well UN member countries are living up to the global goals. Denmark has ranked among the highest many times.

This is also what our literature review for this project showed. We have studied Denmark's position in international comparisons done by the OECD, Eurostat, the Bertelsmann Stiftung and the SDSN. The figure below shows Denmark's position in international global goal benchmarking:

The international measurements put Denmark at the absolute top. Denmark is already a frontrunner in many areas. So why should we keep working on the SDGs?

In our literature review, we discovered that the international indicator systems contain far fewer than the 232 UN indicators. As a result, the international measurements provide an incomplete image of the situation in Denmark.

Without the necessary data, or if we fail to measure correctly or even at all, Denmark's (sustainable) development risks being depicted inaccurately. This could mean that efforts prioritised as local may generate the greatest impact, either locally or globally.

This does not imply that Denmark is doing badly. In many areas, Denmark and our solutions are a global example. However, the global goals are mainly a change agenda. The idea is not to be ahead of other countries, but to apply the global goals as a development tool, whatever the point of departure. This requires a sustained focus on global goals, if we are both to inspire and to export our solutions globally.

Organisation	Denmark's position
OECD	At or above the average in all objectives
Eurostat	Better than the EU average
Bertelsmann Stiftung and SDSN	No. 2 in the world



What should we keep in mind when we make the global goals Danish?

- 1 The UN has not (yet) developed indicators for all targets, but every target is meant to have them. For example, the UN has not yet defined how to measure target 11.4: Protect and safeguard the world's cultural and natural heritage.
- 2 We do not have the data needed to measure all UN indicators. For example, Denmark does not have readily available data for indicator 11.2.1, which measures vulnerable groups' access to public transport. For some targets finding different indicators would be most relevant, while for others it would be better to start collecting new data.
- 3 The global goals are interconnected. If one considers each goal in isolation, its relation to other targets will often be apparent. So how much do we need to take into account when adapting the individual targets? For example, is it sufficient or interesting to measure the proportion of people getting their waste collected when we evaluate the environmental impact of our waste management in target 11.6? Or, would it perhaps be better to consider waste reduction, recycling and processing even though they overlap with SDGs like Goal 12 concerning responsible consumption and production?
- 4 The UN's goals, targets and indicators are global in scope. Take, for example, target 11.1: Build adequate, safe, affordable housing. The official global indicator for this measures the proportion of people living in slums. Moreover, in target 11.3 on making cities inclusive and sustainable, the global indicator measures the proportion of cities with a civil society that participates directly in urban planning. The indicators make sense in a global context. However, if we in Denmark are to create more "adequate, safe, affordable housing" and "make cities more inclusive and sustainable", how do we go about measuring these aims?
- 5 We must agree on how the targets are formulated so we can maintain a common language and a global level of ambition. Yet, we must also be open to new and more appropriate formulations and translations into Danish. For example, how should we interpret "affordable transport systems"? On the portal verdensmaal.org, the Danish-language translations are continually modified. The portal is developed by the independent media house World's Best News (Verdens Bedste Nyheder) and supported by the Danish government.

Why Goal 11 and the built environment?

From the outset the Baseline for Global Goals project has aimed to use one goal or a certain set of them in a pilot project to determine how a baseline can be implemented. An important result is a method and recommendations for setting up baselines for all the SDGs. Global Goal 11 is about the built environment – more precisely about sustainable cities and communities. In fact, towns and local communities are prime examples of how physical parameters interact with respect to social and cultural parameters and with nature.

In the built environment, a particularly complex pattern unfolds, involving a wide range of actors: citizens, companies, the state, municipalities, agricultural interests and many others. Moreover, cities and local communities face the greatest challenges and opportunities when it comes to generating sustainable development. The built environment is something to which we can all relate, and where we all dwell, work, live and move about. This is precisely why Goal 11 provides a good example among the highly political global goals with broad relevance. It is also a global goal requiring adaptation to local conditions.

This makes it an interesting goal to use as a pilot project for developing baselines for the other global goals.

Our core expertise

The built environment is the core expertise of both the Danish Architecture Center and Ramboll Management Consulting, who are working to develop the baseline jointly with Statistics Denmark and Local Government Denmark.

Local Government Denmark has contributed its expertise, knowledge and data on the Danish municipalities. Municipalities play a particularly pivotal role in achieving the SDGs in Denmark – especially Goal 11, which must be achieved through the interaction of national and local actors.

Statistics Denmark is among those responsible for officially measuring the UN indicators in Denmark, for which purpose it has contributed data and knowledge, as well as provided advice on the global goals and the relevant data sources.

Denmark as an inspiration to the world

There are other advantages to studying Goal 11 and the built environment. Denmark has great potential to take a leading position. We are already internationally recognised for our innovative design solutions – a recognition that spans our urban and rural architectural solutions to bicycle paths to our people-centric climate adaptation initiatives.

However, despite our leading position and outstanding solutions, we still need significantly more sustainable development. We may pride ourselves on our sustainable solutions, but only about 4% of our current construction is sustainable (Byggefakta, 2018), our CO2 emissions are rising in several areas where we produce large quantities of waste, and our consumption is among the world's highest.

In other words, there is room for improvement, but the conditions for achieving this are world-class.

Global Goal 11

Goal 11 deals with sustainable cities and local communities. More precisely, it concerns “making cities, communities and human settlements inclusive, safe, resilient and sustainable.”

To make the SDGs more specific, the UN has defined seven targets for Goal 11. They range from housing, transport and green urban spaces to natural disasters, environmental impacts and cultural heritage.

Targets A, B and C constitute a special category of targets that deal with the resources to be deployed to achieve the global goals. Therefore, any reporting on these targets is beyond the scope of the baseline.

The global goals offer an opportunity to bring together the many Danish initiatives and visions across municipalities, organisations, businesses and other actors. This is an opportunity both to reveal and to export the finest Danish solutions.



Target 11.1
Build adequate, safe and affordable housing



Target 11.2
Create safe, affordable, accessible and sustainable transport systems for all



Target 11.3
Make cities inclusive and sustainable



Target 11.4
Protect and safeguard the world's cultural and natural heritage



Target 11.5
Reduce the damaging effects of natural disasters



Target 11.6
Reduce the adverse environmental impact of cities



Target 11.7
Make green public spaces available to everyone



Target A
Enhance good national and regional urban planning

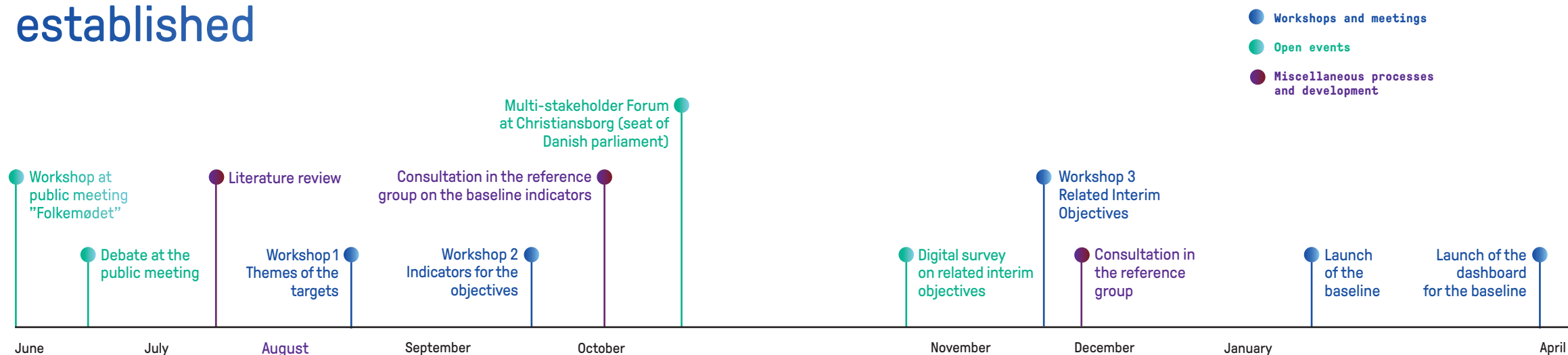


Target B
Make far more of the world's cities more resilient to natural disasters



Target C
Support the least developed countries in building sustainably and resiliently

How the baseline was established



Public meeting 2018

At the public meeting, we invited people to debates and workshops on how a baseline might be used, and how we should measure Goal 11 in Denmark. We found a broad involvement of stakeholders to be essential but also demanding. Moreover, we had a chance to test the organisation of our other project workshops.

Desk study

As part of our baseline work, we did a literature review on comparable baselines for the SDGs. We saw that the task can be approached from many angles, but that many international indicator systems are based on inadequate data. It also became clear that in our work we had to adapt the UN indicators to a Danish context.

Workshops and consultations in the reference group

Over the course of three workshops, the reference group helped to define the initial themes and then indicators for each SDG. The final selection of indicators was sent to the reference group members for consultation. In this way, the reference group has been directly involved in developing and selecting the supplementary indicators underlying the baseline.

Multi-stakeholder Forum

The initial results of the baseline were presented to a broad group of stakeholders at the Multi-stakeholder Forum at Christiansborg, the seat of the Danish parliament. The 2030 Panel held the event, presenting the baseline to politicians and representatives of the various interest organisations, public institutions, knowledge institutions and others attending. Participants' input helped identify new stakeholders to include and provided key critiques to consider in doing the baseline work and communicating its results.

Digital survey

We conducted a digital survey to open up for the involvement of a broad spectrum of citizens and stakeholders. The survey allowed them to let us know which other global goals they saw as relevant to Goal 11. The survey also helped to emphasise how the global goals interrelate and how they can be used to define the Goal 11 indicators.

Dashboard

As part of the project, a dashboard that makes data on the Goal 11 baseline available is being developed. The dashboard will enable municipalities and others to pull up national data and, where possible, data at the municipal level. The dashboard will also enable municipalities to compare their own work with Goal 11 with that of other municipalities and with the work at national level. The dashboard is currently under development and is to be presented in spring 2019.

Presentation and feedback on the 2030 Panel and in the 2030 Network

The project group has continually presented the baseline results at meetings with the 2030 Panel and the 2030 Network. The meetings have focused on intensifying the baseline, in particular the purposes it must be able to serve.

Presentation and feedback on the steering committee

The steering committee has helped to define the content and direction of the baseline, and is the body where the involvement and use of the UN's official definitions, etc., have been clarified and crucial decisions in these regards made.

Who has been involved?

Ensuring the broad involvement of relevant parties and stakeholders in the project has been an important part of the project to develop a baseline for Goal 11. Indeed, the SDGs affect a wide range of socio-interests and concern all of us. A basic principle of SDG work is to “leave no one behind”.

Besides the main parties, a number of other stakeholders have been involved. Their efforts have qualified the project and helped to raise awareness of it. Stakeholder involvement has included experts, interest organisations and to some extent citizens.

However, over the course of the project we have had to recognise that developing a baseline requires technical insight into many of the difficult discussions. This is especially true of the technically heavy subjects that characterise Goal 11, and of the assessment and classification process entailed in obtaining the correct and available data in the field. This imperative has limited the extent to which we can involve citizens but also groups with interests outside the technical scope. Wherever possible, we have focused on involving representatives and researchers to cover the many interests at stake.

Everyone involved during this period has shown massive goodwill towards all the global goals. Everyone has contributed their creative, critical and constructive input. Their inclusion has thus proved indispensable to the project as well as contributed to many different people's reflections on and work with the global goals. As the next baselines become developed, this broad, thorough involvement will remain vital. The discussions it produces serve to refine and qualify the work with the baselines, enabling them, as best possible, to reflect the real world in which they are to be implemented.

The 2030 Network is the Danish Parliament's nonpartisan network for the UN's global goals and includes politicians from every parliamentary party. The network has been involved through the steering committee, presentations and the Multi-stakeholder Forum at Christiansborg.

The 2030 Panel consists of representatives from the central social organisations, interest groups, foundations, knowledge institutions and more. The 2030 Network set up the panel, which has participated in the project steering committee, as well as worked with representatives of the reference group. The panel has also been involved in separate meetings where it could provide its feedback.

The project steering committee has helped define the process and those to be involved. The steering committee has included representatives from the project partners: The Danish Architecture Center, Ramboll Management Consulting, the 2030 Panel, the 2030 Network, Realdania and the Ramboll Foundation.

Statistics Denmark is already working with the SDGs and is officially in charge of measuring the UN indicators for Denmark. Statistics Denmark has participated in the project as a partner, making data available as well as providing advice and qualifying other relevant data sources.

Local Government Denmark (KL) has contributed its knowledge on municipalities and their experience of working with the global goals, particularly Goal 11 on cities and communities. KL has helped to qualify the data in the baseline, as well as provided crucial assistance in developing a baseline dashboard aimed, in fact, precisely at municipalities.

The reference group has consisted of members and representatives of the 2030 Panel and other relevant parties selected or wanting to contribute to the work. All in all, representatives of significant actors in society, experts and potential users of the project baseline have been involved. The purpose of the reference group has been to find the supplementary indicators and to qualify the baseline work.

Citizens and broad interest groups have also been involved in the project – especially during the workshop and debate at the annual public meeting held on Bornholm (Folkemødet), at the Multi-stakeholder Forum at Christiansborg, and through a digital survey.

The City of Copenhagen Climate Ambassadors consist of a number of 7th and 8th grade pupils from Copenhagen public schools. The climate ambassadors have followed the baseline process and worked to find themes for the individual targets, which they have presented to the reference group.

Baseline for Goal 11



In the baseline, we supplement UN indicators with new indicators relevant when we measure how well the global goals are being met in Denmark. These new indicators form the basis for the baseline. The baseline is divided into Goal 11 targets and consists of two to four indicators per target.

However, this also means that some indicators lack data that satisfy the criteria and thus cannot presently be included in the baseline. For this reason, we have compiled an overview of recommendations for new or enhanced indicators that can eventually be compiled and included in an updated baseline.

For each indicator we have gathered a number of specific observations that can point to areas in need of action or special attention concerning the indicators and data. We have also asked one expert from each discipline to assess the baseline results, what they tell us and what to be more aware of going forward.

The overview on the next page shows Statistics Denmark's official assessment of the UN's indicators and how we have supplemented them with new, adapted ones. Next, we present the baseline results for the individual targets. For each indicator, we have also specified the level of data currently available (based on the smallest geographic level – national, regional, municipal or area-specific).

In the project, we have used a number of criteria for the data underlying the indicators. Data must be:

- 1 Relevant (directly connected to an SDG or applicable to Denmark)
- 2 Statistically significant
- 3 Continually updated so that the baseline can also be updated towards 2030
- 4 From a reliable and recognised source.
- 5 Available to the public and open so others can continue working to develop the baseline.

Target 11.1 Build adequate, safe, affordable housing

UN Indicators	Statistics Denmark's Comments	Baseline's Supplemental Indicators
The proportion of urban population living in slums, informal settlements or inadequate conditions.	There are no entire population groups that live in slums or informal settlements. There are homeless people and individual citizens who live in unsuitable dwellings, but not on a scale that warrant subject-specific statistics.	Indicator 1: Development in housing costs
		Indicator 2: Development of rent in public residences
		Indicator 3: Number of homeless
		Indicator 4: The number of Danes in vulnerable residential areas

Target 11.2 Create safe, affordable, accessible and sustainable transport

UN Indicators	Statistics Denmark's Comments	Baseline's Supplemental indicators
Proportion of the population which has easy access to public transport, distributed by sex, age and persons with disabilities.	Statistics Denmark is currently investigating whether data exists for this indicator.	Indicator 1: Prices of transport in relation to the consumer price index
		Indicator 2: CO2 emissions in transport
		Indicator 3: Availability and distance to public transport for people with reduced mobility
		Indicator 4: Distance to public transport

Target 11.3 Make Cities Inclusive and Sustainable

UN Indicators	Statistics Denmark's Comments	Baseline's supplemental indicators
Ratio of land consumption rate to population growth rate	The indicator is calculated by Statistics Denmark based on the land consumption calculation.	Indicator 1: Ratio between land consumption rate and population growth.
Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically.	Through the right to participate in local elections, no adult citizen (18 years or over) is denied the possibility of participating in public planning and management.	Apart from participation in local elections, no data source able to measure citizen participation has been found.

Target 11.4 Protect the World's Cultural and Natural Heritage

UN Indicators	Statistics Denmark's Comments	Baseline's supplemental indicators
Total expenditure (public and private) per capita spent on the preservation protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship).	To date, the UN has not defined this indicator.	Indicator 1: Number of protected/listed buildings
		Indicator 2: Number of m2 of preserved or protected nature
		Indicator 3: Funds allocated to environmental protection

Target 11.5 Reduce the damaging effects of natural disasters

UN Indicators	Statistics Denmark's Comments	Baseline's supplemental indicators
Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	Statistics for this area have not been compiled, but this is estimated to occur very rarely or never.	Indicator 1: Public expenditures used for protection against climate change
Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters	Statistics Denmark is currently investigating whether data for this indicator exists.	Indicator 2: Insurance payments for torrential rains and storm flooding

Target 11.6 Reduce the adverse environmental impact of cities

UN Indicators	Statistics Denmark's Comments	Baseline's supplemental indicators
Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	In Denmark, all waste collection and management are under public control.	Indicator 1: Waste in tonnes per inhabitant Indicator 2: Share of recycled waste
Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	The Department for Environmental Science, Aarhus University, calculates this indicator.	Indicator 3: Discharge of fine particulate matter (PM 2.5, PM 10 and NOx)

Interim Objective 11.7 Make Green Public Spaces Available to

UN Indicators	Statistics Denmark's Comments	Baseline's supplemental indicators
Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months	To date, the UN has not defined this indicator.	Indicator 1: Perceived safety
Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	To date, the UN has not defined this indicator.	Indicator 2: Reported sexual and violent crimes
		Indicator 3: Number of road fatalities
		Indicator 4: Land used for parks, sports facilities and other recreation areas

Target 11.1

Build adequate, safe
and affordable housing

UN official definition

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

How we supplement the UN indicators

The project reference group finds that Denmark has no slums or unsuitable housing conditions to any significant extent. The supplementary indicators therefore focus on housing costs and on marginalised and disadvantaged groups in the residential market.



Indikator 1: Development of Housing Costs

The actual cost of owner-occupied dwellings has fallen nationally

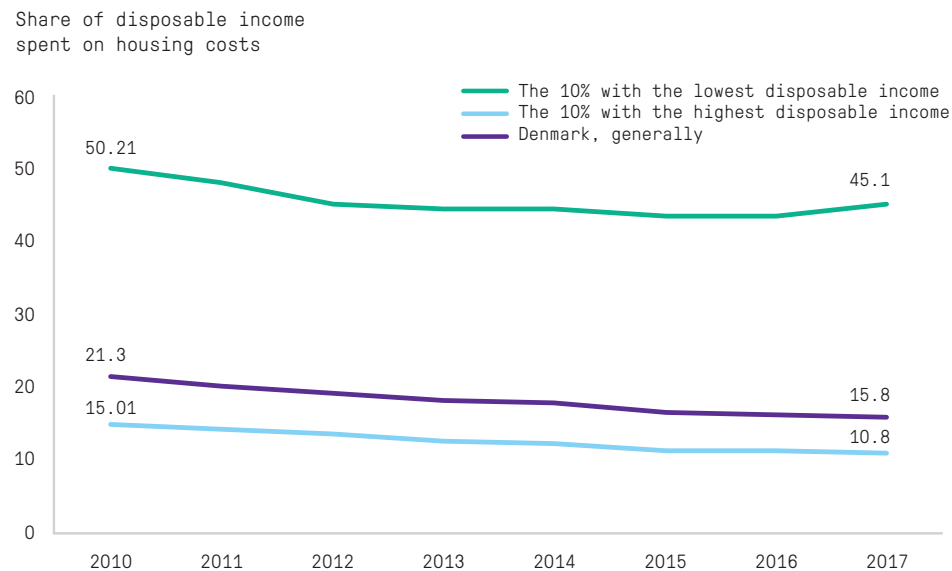
Geographic level of data: municipal

The housing cost burden is an expression of the percent of disposable income a household pays for an owner-occupied dwelling. It thus shows how much a dwelling actually costs after adjusting for the interest rate and wage trends. The housing cost burden is calculated for those population segments that live in dwellings they themselves own. Thus the calculation does not include tenants and owners in housing cooperatives, a type of housing in which many young people and low-income families live.

The housing cost burden has fallen in the period 2010 to 2017 – despite rising property prices. Danes' expenditure on housing varies considerably. For the 10% of Danes with the lowest disposable income (living in owner-occupied dwellings), about half their disposable income is spent on housing, while the tenth of the population with the highest disposable income spends around 10%. The national figures considerably mask local variations. For example, the housing cost burden has fallen 1.2% in Copenhagen for the 10% with the lowest disposable income, while the decrease for the same population group in North Djursland lies at 19 %.

Figure 1
Summary of housing cost burden from 2010 to 2017

Source: Statistics Denmark



Indikator 2: Development in public housing rent

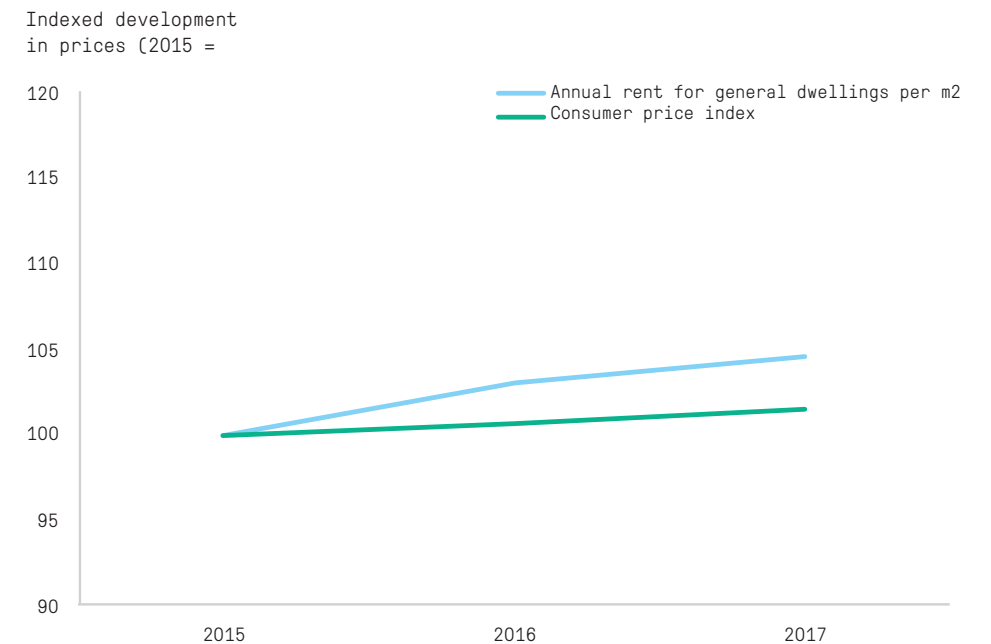
Public housing rent is growing faster than consumer prices

Smallest geographic level of data: Municipal

On average, public housing rent from 2015 to 2017 has increased by 4.6% in total. In the same period, the consumer price index rose by 1.5%. Rent in the public housing sector thus became relatively more expensive than other goods and services during the period.

Figure 2
Development of rent in public housing (m2 per year)

Source: LBF



Indicator 3: Number of homeless people

The number of homeless people is increasing

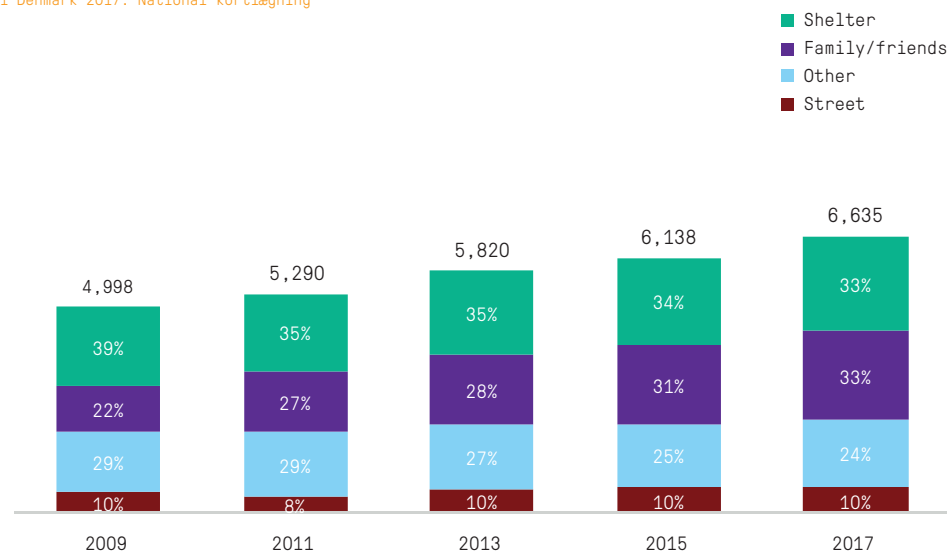
Smallest geographic level of data: municipal

Note: The statistics do not include homeless migrants without a permanent address. This is due to the large statistical uncertainty associated with mapping this group.

The number of homeless people in Denmark rose by 32% from 2009 to 2017. In 2017 homeless people numbered around one thousandth of the Danish population. The increase reflects a general EU trend. The European Federation of National Organisations Working with the Homeless (FEANTSA) estimates that Denmark ranks 13th out of the 28 EU countries, measured by the housing exclusion situation in the country.

Figure 3
The number of homeless people in terms of dwelling types and total number

Source: VIVE-report L. Benjaminsen, "Hjemløshed i Danmark 2017. National kortlægning"



”

The supplementary indicators show a Danish housing supply that fundamentally ensures a high standard of dwelling for a broad range of population groups, but the indicators are specified in a way that embellishes the picture somewhat.

The use of national averages conceals the fact that the housing cost burden has risen in Copenhagen to the detriment of young people and low-income families. The concept of "vulnerable residential areas" lacks comparability with the rest of the world, and the definition is subject to political changes.

Up to 2030, more affordable housing in the major cities must be secured, and vulnerable groups must be helped in particular. The problems of the public sector must be handled without simply moving the weakest families around the country.

Curt Liliiegren
Director of The Knowledge Centre for Housing Economics

Indicator 4: The number of Danes in vulnerable residential areas

Approximately 2% are living in vulnerable residential areas

Smallest geographic level of data: area-specific

In 2017, 120,767, or about 2% of the Danish population, lived in vulnerable residential areas in Denmark. This figure is based on estimates from the Ministry of Transport, Building and Housing from 2017. This indicator offers a snapshot of the number of people living in vulnerable residential areas.

Target 11.2

Create safe, affordable,
accessible and sustainable
transport systems



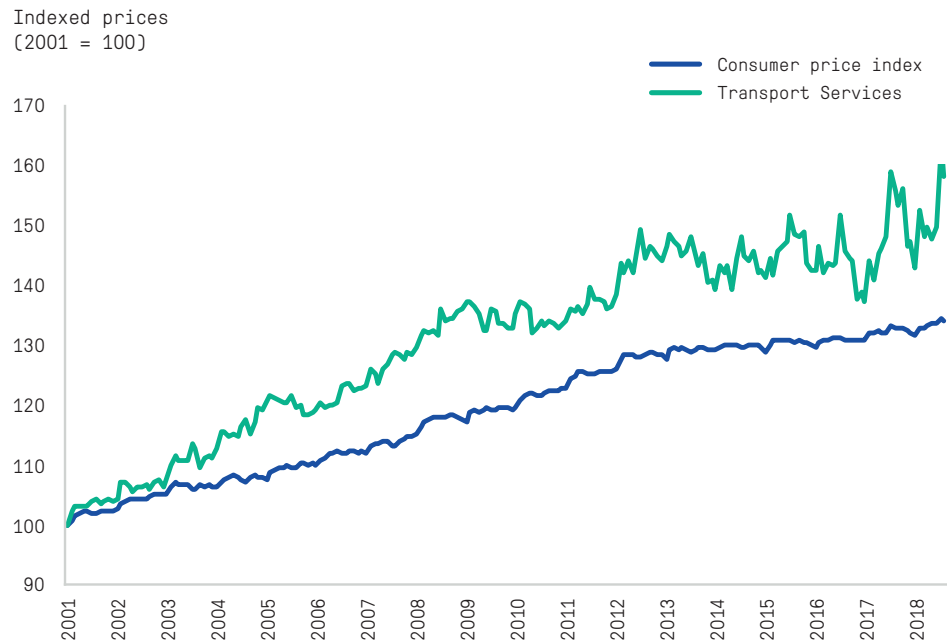
Indicator 1: Price of transport relative to the consumer price index

Public transport prices are growing faster than those of other goods and services

Smallest geographic level of data: national

Transport prices have risen at a relatively higher rate than general prices in the 2011-2018 period. Transport prices are for train, metro and bus services.

Figure 4
Transport prices relative to consumer prices
Source: Statistics Denmark



”

Denmark has no overall policy for sustainable transport in cities, which is also reflected in the indicators for target 11.2. There is relatively good coverage with public transit in Danish cities, and a number of municipalities and regions also make a solid effort to promote green transport solutions with access for the disabled. However, cars and their CO2 emissions predominate, and the growing car, van and lorry traffic prevents the CO2 curve from being broken. Neither does it help the balance of urban traffic when the state reduces vehicle registration taxes to make cars less expensive yet has generally granted more modest support for sustainable mobility.

Henrik Gudmundsson
Senior Consultant at Concito

1 CO2 emissions in the transport sector are presented as the average of the development in CO2 generation from the five most CO2-emitting municipalities and the five least CO2-emitting municipalities. Source: The Danish Energy Agency's CO2 accounts.

Indicator 2: Emissions of CO2 within transport

CO2 emissions in the transport sector increased in the 2010-2015 period

Smallest geographic level of data: municipal

CO2 emissions from transport have increased, while the total CO2 emissions per inhabitant has fallen in the 2010-2015 period. This development indicates that the transport sector continues to pose a challenge to overall CO2 reduction in Denmark.

At the municipal level, the figures for CO2 emissions from transport do not immediately show the same fall per capita as seen for total CO2 emissions for the period. The figures are taken from the Danish Energy Agency's CO2 accounts. One should note that national and municipal emissions are measured according to two different methods. Seen over the course of many years, emissions in the transport sector were similarly unchanged.

Indicator 3: Availability and distance to public transport for people with reduced mobility

Systematic difference in the distance to the nearest train station for people with and without reduced mobility

Smallest geographic level of data: National
Smallest geographic level of data: national

In all years measured, people with reduced mobility have longer to the nearest train station, as the crow flies. Across all the years, people with reduced mobility have an average of up to 300 metres longer to the nearest train station than people who do not have reduced mobility.

Moreover, the majority of train station across the country have neither direct lines on the platforms or standard platforms. A statement from the Ministry of Transport, Building and Housing also shows that there are enormous regional differences in how many platforms that have level access, where the region with the most stations with level access are. Where the region with the highest number of such stations has level access at 94% of locations, only 76% of the platforms for the region with the lowest number of such stations has level access.

Note: This result could be considerably improved if it were extended with distances to other forms of transport, such as bus or metro.

Figure 5
Average national distance to the nearest train station

Source: DTU's Transport Habit Investigation

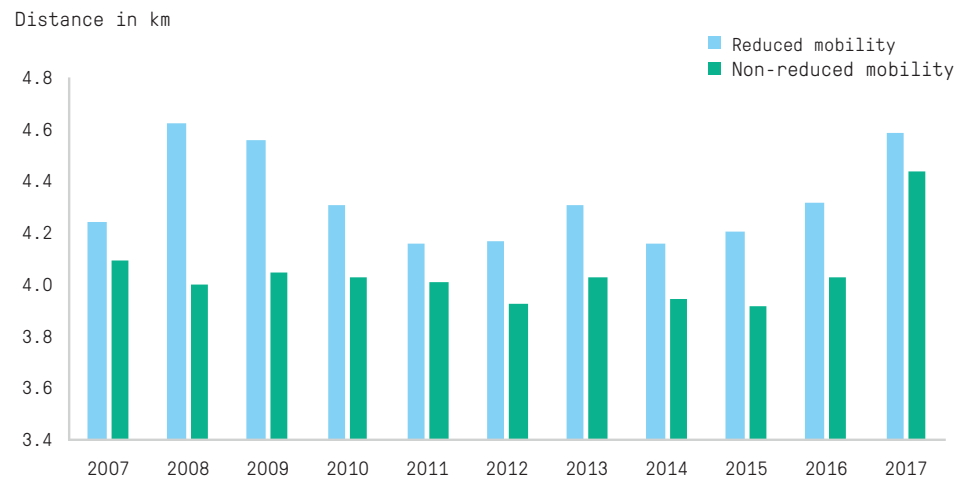
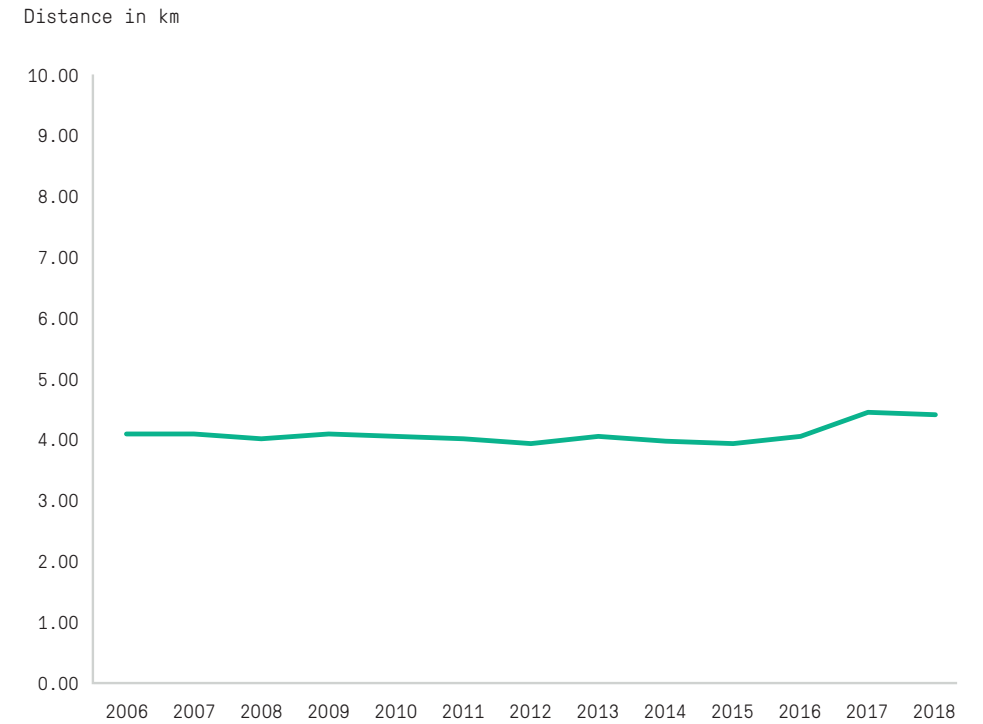


Figure 6
Average distance at national level
Source: DTU's Transport Habit Investigation



Indicator 4: Distance to public transport

No major changes in average straight line distance from home to nearest train station from 2007-2018

Smallest geographic level of data: municipal

Overall, results show that the average straight line distance from a home to the nearest train station has remained largely unchanged from 2007 to 2018 (with a small increase from 2017 onward). Moreover, municipally the distance varies greatly between the municipality with the lowest average distance (0.47 km) and the municipality with the highest (25.63 km). The municipal distances are averages for the years 2006 to 2018.

Target 11.3

Make cities inclusive
and sustainable

UN official definition

By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

How we supplement the UN indicator

The project reference group considers the direct involvement of civil society in urban planning and administration to be important, but difficult to measure. Therefore, only one of the two UN indicators is measured against this target. The indicator describes the relationship between land consumption rate and population growth.



”

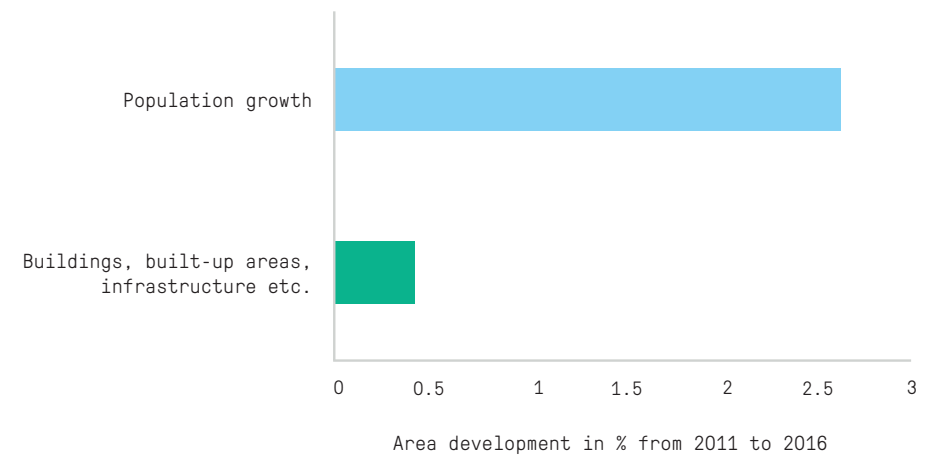
Denmark is perhaps the best country in the world when it comes to “co-creating” sustainable and inclusive urban communities. We have a strong historical tradition of local self-government, clubs and active citizenship. The power distance between citizens and decision-makers is relatively short, and the public administrations create welfare both on behalf of and together with citizens.

When municipalities work on, say, climate adaptation, it is done in cooperation between decision-makers, foundations, the local community, businesses, associations, activists, etc. It is the expression of a political and administrative culture able to involve the best of the many stakeholders across organisational, value-related and knowledge boundaries. In this regard, Denmark is a pioneer.

The value of the work with the UN global goals increases when the indicators are adapted to the local context and contain indicators on the central processes. When we in Denmark make target 11.3 operational, we cannot be satisfied with a single indicator. We need to have a full “Index for co-creation of sustainable and inclusive cities” to benchmark and to tell the whole story. Examples of three subjects that can be included are: “The presence of policies for sustainable urban development that make local, national and global sustainability objectives operational”, “the presence of a toolbox for citizen involvement in the green discussion” and “holistically oriented sustainability certification practices”. The dialogue on such an index could be a task for the 2030 Network and the municipalities.

Lars A. Engberg
Senior researcher with State Building Research (SBI), Aalborg University

Figure 7
The relationship between land consumption rate and population growth.
Source: Statistics Denmark



Indicator 1: Ratio of land consumption rate to population growth.

The land consumption rate was lower than population growth from 2011-2016

Smallest geographic level of data: national

Note: The figure shows land-consumption trends from 2011 to 2016 for selected areas.

Population growth in the 2011-2016 period was much higher than the increase in buildings, built-up areas, infrastructure, etc. Thus, Danish population growth remained high within existing urban areas. While the population has grown by 2.6% from 2011 to 2016, areas with buildings, inhabited areas, etc., have grown by 0.4%. During the period, agricultural land has decreased by 1.2%, and natural areas have increased by 3.1%.

Target 11.4

Protect and safeguard the world's cultural and natural heritage

UN official definition

Strengthen efforts to protect and safeguard the world's cultural and natural heritage



How we supplement the UN indicator

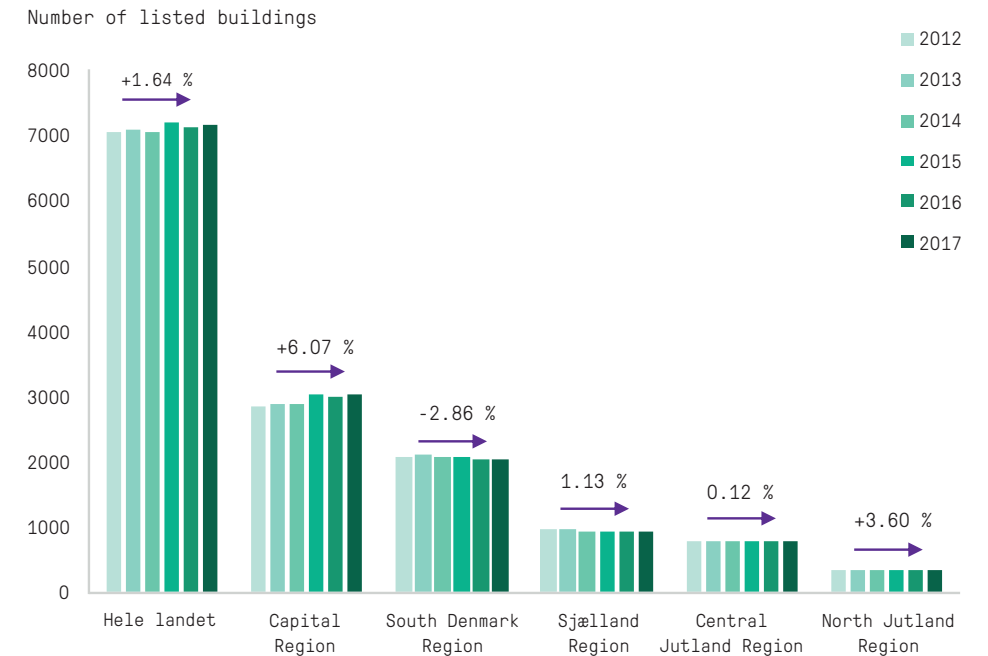
The project reference group considers it important to measure all elements of the UN interim target 11.4 in Denmark. The choice of supplementary indicators reflects both culture and nature, as well as listed buildings.

Figure 8

Development in number of listed buildings

Source Statistics Denmark

Note The percentage figure of the bars indicate the growth from 2012 to 2017.



Indicator 1: Number of listed buildings

Number of listed buildings is largely unchanged from 2012 to 2017.

Smallest geographic level of data: regional

Number of protected buildings from 2012 to 2017 has on average not changed very much at national level (increase of 1.6% over the period). There are great regional differences in the development in the number of protected buildings between the regions. Where the Capital Region has 6.07% more protected buildings from 2012 to 2017, the South Denmark Region has had 2.86% fewer protected buildings.

Indicator 2: Number of m2 of preserved, protected and conserved natural heritage

Number of m2 of preserved, protected and conserved natural heritage

Several different calculation methods

Quantifying the preserved, protected and conserved areas in Denmark is challenging. This is because there are several different calculation methods, some of which overlap and others of which cannot genuinely define areas being such.

”

The indicators for building and natural heritage are generally highly inadequate.

When it comes to natural heritage, there is general agreement that maintaining biodiversity depends on there being large, coherent areas strongly focused on nature's undisturbed development, with very modest human interaction. Area calculations alone say very little about the state of nature. Similarly, investments in protecting nature are also a questionable indicator, since much of the investment is made in the form of land acquisitions, where natural quality is not necessarily proportional to the investment.

If we look at building heritage, the number of listed buildings is an acceptable indicator, but the number says nothing about the architectural context on which cultural heritage is often dependent. An isolated listed building, without its urban or landscape context, may be worth substantially less than buildings that are preserved in the context of their environment.

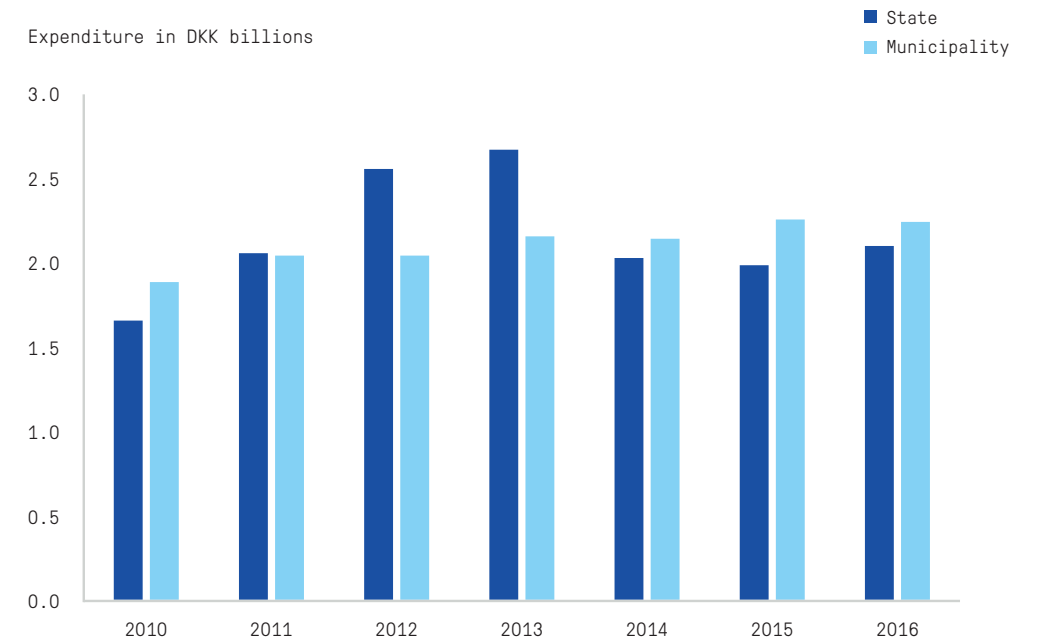
To get a clearer picture of Denmark's natural and cultural heritage, it is first necessary to calculate the land area that actually takes natural or culturally rich natural habitats and the species characteristic of them into account. In terms of building heritage, we lack a better way of calculating the total culture environments.

Henrik Vejre
Professor and department head of landscape architecture and planning at the University of Copenhagen

Figure 9

Development of costs for public environmental protection (biodiversity and landscape)

Source: Statistics Denmark



Indicator 3: The funds allocated to environmental protection

Funds for biodiversity and landscape have increased slightly from 2010-2016

Smallest geographic level of data: national

Note: 'Biodiversity and landscape' mean the administration of nature, afforestation, the protection of animal and plant species and habitat types.

From 2010 to 2016, government expenditure on biodiversity and landscape has increased by 26.5%, and municipal expenditure by 18.8%. Government expenditure increased markedly from 2010 to 2013, and then fell again from 2013 to 2015. Municipal expenditure increased more moderately, albeit throughout the entire period.

Target 11.5

Reduce the damaging effects of natural disasters

UN official definition

By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.



How we supplement the UN indicator

Deaths from natural disasters are rare in Denmark. The focus here is therefore on supplementary indicators on financial costs.

Indicator 1: Public Expenditures Used for Protection against Climate Change

Public expenditure for the protection of air and climate has fallen since 2009

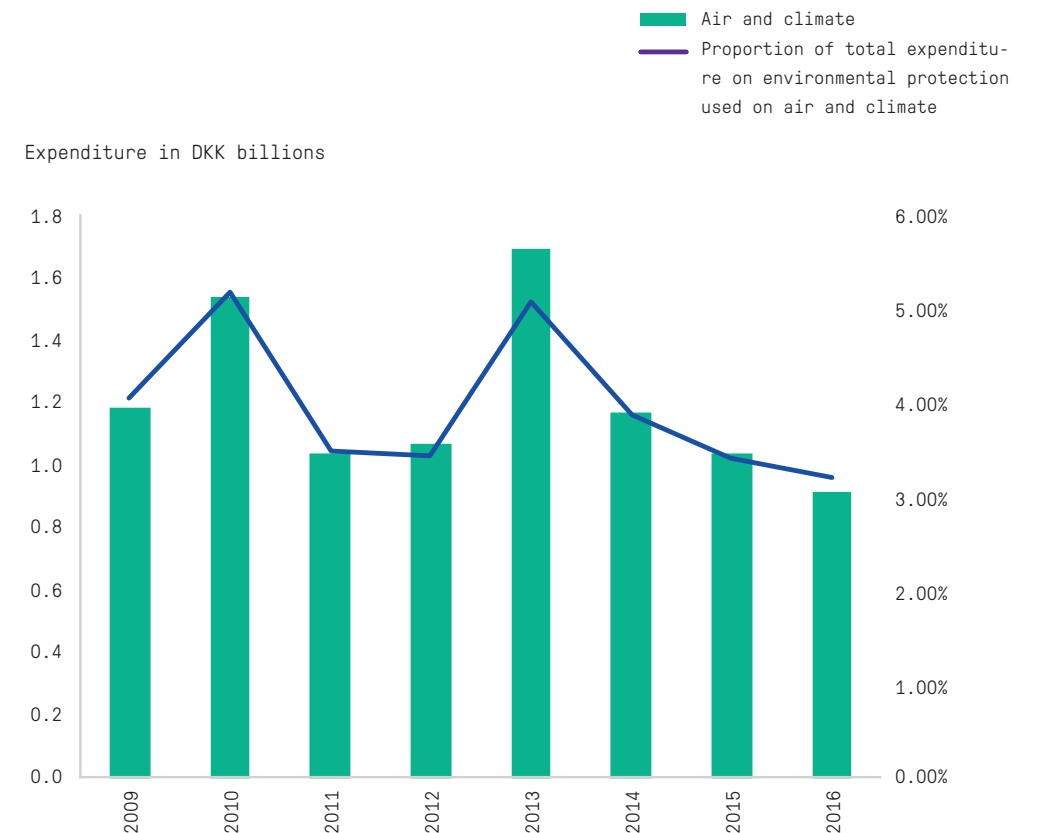
Smallest geographic level of data: National

Expenditures for air and climate has fallen by 22 % since 2009 and amounted to 3.19% of the total public expenditure on environmental protection in 2016. Public expenditure for the protection of air and climate is calculated by Statistics Denmark as a proportion of the total public expenditure on environmental protection. The category of "air and climate" deals primarily reduction of emissions of greenhouse gases and ozone layer-reactive substances, as well as certain exhaust and flue gases from transport and production.

Figure 10

Trends in public expenditure on environmental protection (air and climate)

Source: Statistics Denmark



Indicator 2: Insurance payments for torrential rains and storm flooding

Insurance payments pertaining to torrential rain are expected to increase in the coming decades

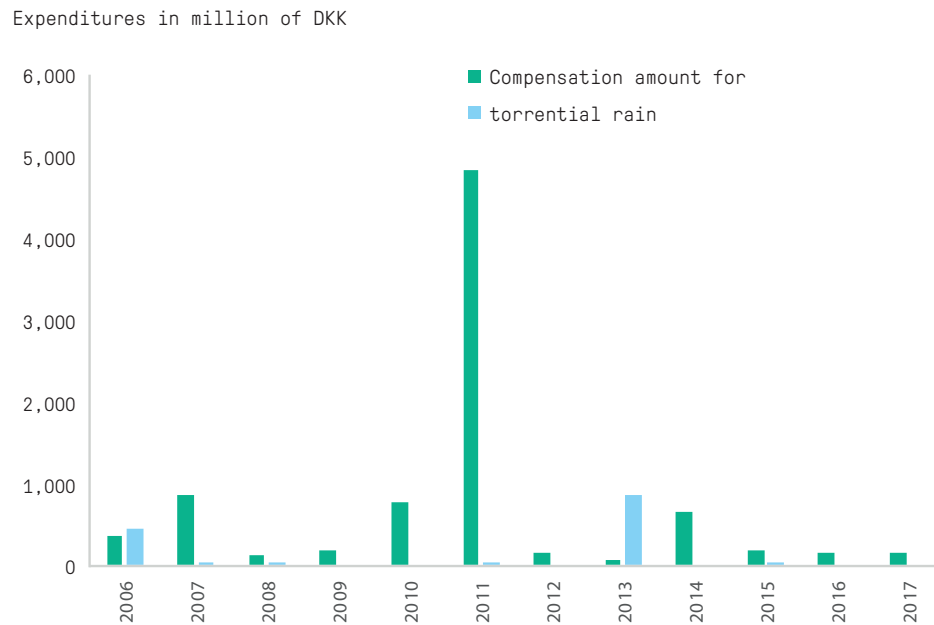
Smallest geographic level of data: national

Insurance payments made as a consequence of, e.g., rainstorms indicate the magnitude of the social costs extreme weather events inflict. Insurance payments for damage from torrential rain varies substantially from year to year, so the exact changes in expenditure are difficult to determine. According to a 2017 report from the European Environmental Agency, per capita insurance expenditure in Denmark is the second highest in the EU, which is why having security against extreme weather events is of considerable economic importance for the country.

In the future, society can be expected to have considerably higher costs for both climate protection and climate adaptation, as well as for damage repair. For example, a report from the Coastal Directorate shows that 132 storm floods have been recorded over the past 655 years (from 1362 to 2017). More than a fifth of these occurred in the last 26 years (from 1991 to the 2017)

Figure 11
Summary of compensation paid for the torrential rains and storm floods

Source: Insurance & Pension



”

Denmark is one of the countries in the world with the longest shorelines in relation to our size. This can have considerable economic consequences for us the future.

The baseline results focus on insurance payments after natural disasters. However, to really understand the extent of the damage caused by natural disasters, we must have a much broader focus. We should include, e.g., expenses for clearing houses, vacating them, lost earnings, lower house values and repair costs.

Moreover, e.g., floods will also entail significant delays in transport, with economic losses connected with both work- and leisure-related transport. This is in addition to the human cost, which includes both physical and mental illness.

Private expenditure should also be included in the total cost of climate protection. It is the policy of the government that a large part of the costs are to be defrayed privately, considering that this is a matter of protecting people's own businesses or houses. It can be expected that in future private expenditure on climate protection will be at least as great as public expenditure.

Kirsten Halsnæs
Professor of Systems Analysis of Sustainability at the Technical University of Denmark (DTU)

Target 11.6

Reduce the adverse environmental

UN official definition

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management

How we supplement the UN indicator

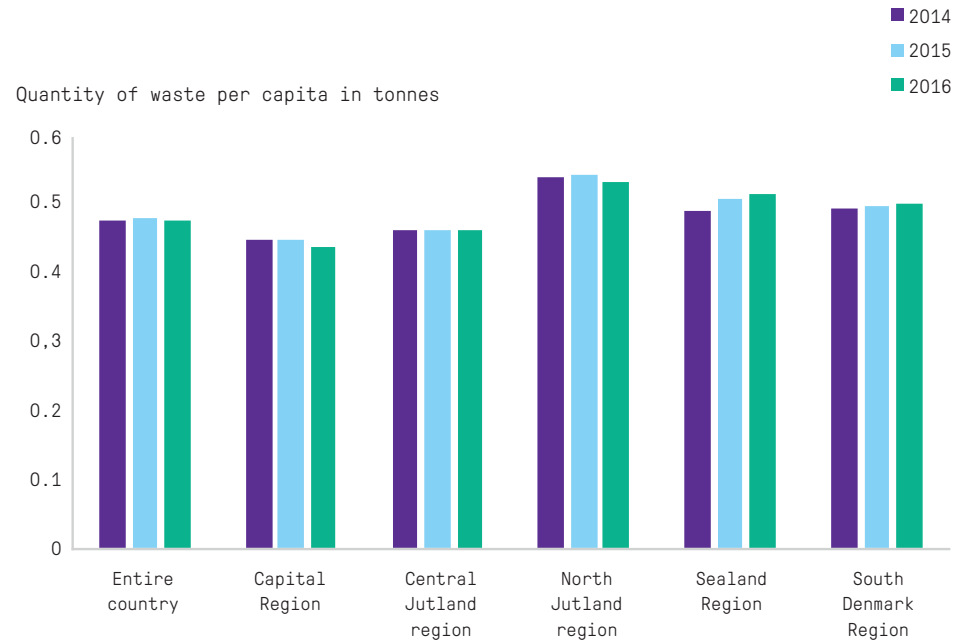
The project reference group considers the UN indicator on waste collection not to be relevant in Denmark, as waste is collected in all municipalities.

On the other hand, the volume of waste and recycling is relevant. It is also estimated that not the PM value of fine particles, but NO_x is the challenge Denmark faces. The baseline therefore included supplemental indicators that measure these conditions.



Figure 12
Development of the volume of waste per inhabitant

Source: Danish Environmental Protection Agency and Statistics Denmark



Note: the figure shows where large volumes of waste have been generated in tonnes per capita at regional level. Volumes derived from the Danish Environmental Protection Agency and the number of inhabitants are provided by Statistics Denmark.

Indicator 1: Waste in tonnes per capita

Amount of waste per capita is unchanged from 2012 to 2016.

Smallest geographic level of data: regional

The volume of waste is unchanged in the period from 2014 to 2016 (0.07% at the national level), and for three of the regions the volume per capita has increased. The region whose volume in tonnes dropped most significantly saw a drop of 2.5%, while the region with the greatest volume increase saw a rise of 4.6%.

Indicator 2: Share of recycled waste

The share of recycled waste has increased from 2014 to 2016

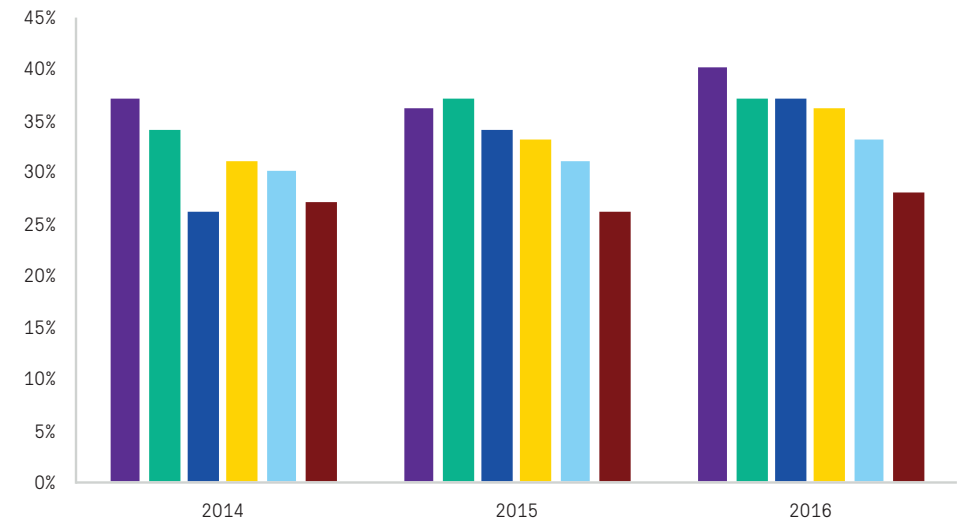
Smallest geographic level of data: regional

The percentage of waste that is recycled in Denmark has increased by 5 percentage points from 2014 to 2016. If development continues at this rate, Denmark will achieve the goal of recycling 50% of household waste sometime between 2021 and 2022.

Figure 13
Share of recycled waste from the total quantity of waste

Source: Danish Environmental Protection Agency waste statistics

Share of recovered waste from the total volume of waste



”

Almost all human prosperity and well-being are paid for with natural resources as a currency. However, resources are not infinite. We need to protect natural resources if we are to ensure the development of a sustainable society.

In every other respect, waste production is an expression of a reduction in the total resource pool available. In an ideal world, we should aspire to a waste production level of zero!

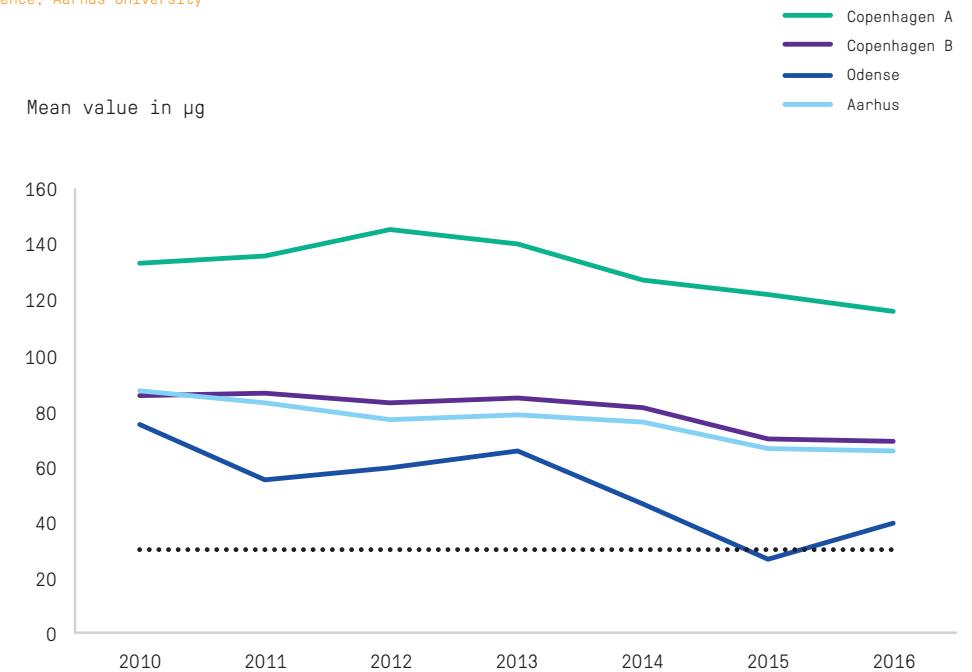
The baseline results for target 11.6 measure annual waste production at approximately 0.5 tonnes per capita in Denmark. This shows how far Denmark is from achieving the objectives that apply to target 11.6, but also Goal 12 on responsible consumption and production and Goal 13 on climate action. For even if they are not included in the statistics, greenhouse gas emissions are, of course, also a form of waste.

Technological development can help us reduce the amount of waste we produce, including the waste we emit into the atmosphere as pollution. But there is also a need for a change in behaviour and of attitude in order to come to grips with the waste challenge in Denmark.

*Katherine Richardson
Professor and head of the Sustainability Science Center at the University of Copenhagen*

Figure 14
Development in the discharge of NOx for selected measuring stations

Source: Institute for Environmental Science, Aarhus University



Indicator 3: Discharge of fine particulate matter (PM 2.5, PM 10 and NOx)

Levels of measured NOx emissions in cities far exceed the limit value

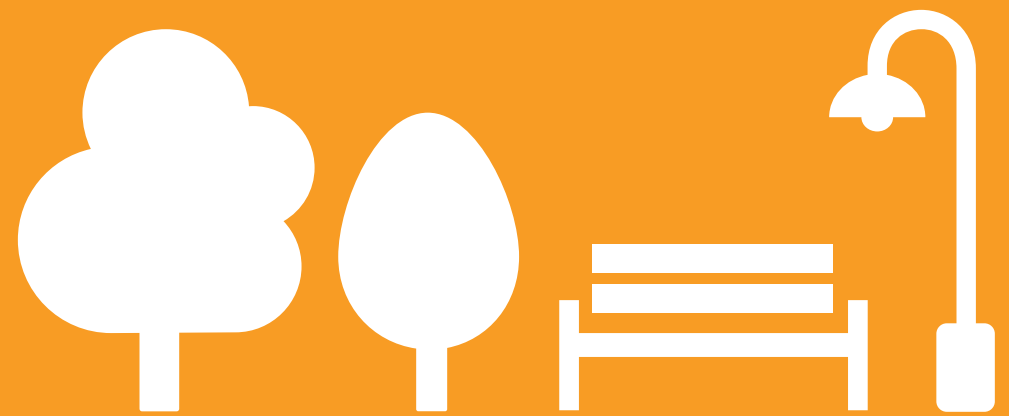
Smallest geographic level of data: area-specific details for measuring stations

Note: The figure shows estimates of NOx emissions from four measuring stations in the three largest cities.

Looking at PM 2.5 and PM 10 emissions, one sees that all the levels measured by the measuring stations around Denmark are below the limit value. Figure 14 shows the measured levels of NOx in Denmark’s three largest cities. The figure shows that NOx emissions are above the recommended limit value (illustrated by a dotted line). A drop in the level can also be seen, but not one that brings the emissions below the recommended limit value. An EU directive from 2008 set the limit value still in effect.

Target 11.7

Make green public spaces available to everyone



UN Official Definition

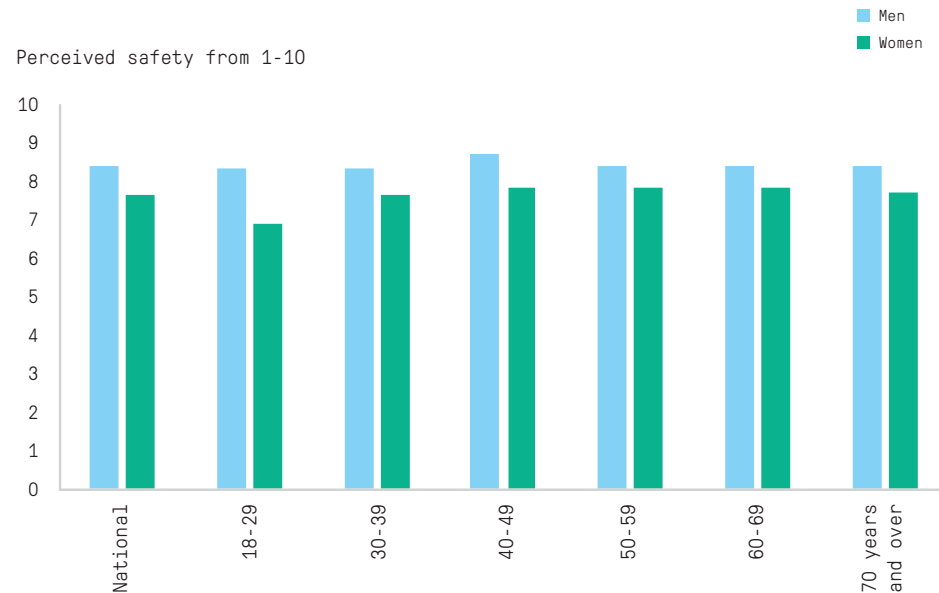
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older people and persons with disabilities

How we supplement the UN indicator

The project reference group considers both UN indicators to be relevant for Denmark. The UN indicators are supplemented with four indicators aimed to provide a nuanced view of this broadly formulated target in a Danish context.



Figure 15
Summary of perceived safety assessed from 1 to 10
Source: Statistics Denmark



Indicator 1: Perceived safety in 2015

Perceived safety was systematically different for men and women in 2015

Smallest geographic level of data: area-specific

Women generally feel less safe than men, as shown in Figure 15. This difference in perceived safety applies to all ages. However, as it is currently uncertain whether the study will be repeated, the figures must be regarded as a snapshot.

Note: The figure shows how inhabitants in 38 municipalities assess the perceived safety levels on a scale of 1 to 10. The figures are from 2015.

Reported sexual assault and violent crimes

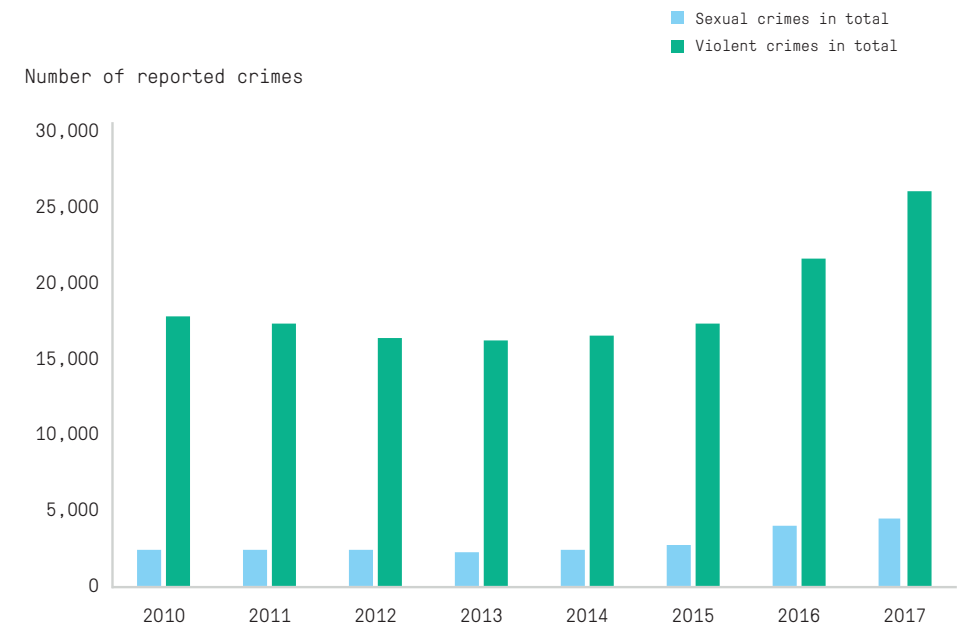
Reported sexual assault and violent crimes rose considerably from 2010 to 2017.

Smallest geographic level of data: national

The number of reported sexual assaults and violent crimes has risen since 2010, according to Statistics Denmark. The number of reported violent crimes has climbed by more than 46%, while the number of sexual crimes has increased by more than 80% from 2010 to 2017. A study done by the Crime Prevention Council also estimates that around 88% of all sexual violations are not reported to the police and that 84% of the victims are women.

Figure 16
The trend in the number of reported acts of violence and sexual crimes

Source: Statistics Denmark



Indicator 3: Number of road fatalities

Reduction in the number of traffic deaths

Smallest geographic level of data: Municipal

The number of traffic fatalities has fallen since 1998 across all regions. However, the decline has been less sharp since 2012, with the downturn flattening out and, for a few regions, even reversing in the past few years.

Figure 17

Trend in the number of road deaths from 1998 to 2017

Source: Statistics Denmark



”

Of course it is important to remember that baselines are just indications of the overall goal, which is much more complex. However, the baseline points to the fact that women to a higher degree than men feel unsafe in Danish urban spaces. At the same time, the number of reported acts of violence is increasing.

Research from KADK shows that if we want to create safe green urban areas, they must not be too large and need to be situated close to well-trafficked roads and paths and close to residential areas from which they can be monitored as well as visible at eye level; lighting is also of great importance. I have no doubt that we must involve more and more thorough urban planning including a wide range of factors in overall concepts, so that cities become safer, more inclusive and more accessible – not just for women, but for the entire population.

Lene Dammand Lund
Rector of The Royal Danish Academy of Fine Art's Schools of Architecture,
Design and Preservation (KADK)

Indicator 4: Land used for parks, sports facilities and other recreation spaces

Source: Statistics Denmark

Large regional differences in the number of m2 per capita

Smallest geographic level of data: regional

The number of m2 per capita varies considerably between the regions. The North Jutland Region (9.19 m2 per capita) has nearly twice as many m2 of parks, sport facilities and recreation spaces per capita as does the Capital Region (46.1 m2 per capita).

Suggestions for new indicators and the expansion of existing ones

In the process of developing the baseline, we identified a number of indicators that would have been valuable to include, but that lack the data required to satisfy the project data criteria. Here is a list of suggested new, supplementary indicators or extensions of existing ones.

Target 11.2

Suggestion for new supplementary indicator:

Measurements of CO2 emissions in Denmark do not include those resulting from the consumption of goods produced abroad. As such, the picture of Danish CO2 emission figures under target 11.2 on transport is skewed, as some emissions are due to decisions made in Denmark but implemented abroad. We therefore suggest that in future a Scope 3 calculation at the national and municipal levels include all types of Danish activities, including the consumption of goods produced abroad.

Target 11.2

Suggestion for new supplementary indicator:

The measurement of UN target 11.2 on transport would greatly benefit from being expanded to include people with reduced mobility in the measurement of accessibility to transport, and to include all forms of transport in the calculation of straight line distance from home to train station.

Target 11.4

Suggestion for new supplementary indicator:

It would strengthen the coverage of the efforts to preserve property, preservation-worthy buildings and archaeological sites if public funds to protect property and archaeological sites were measured in a precise and consistent manner.

Target 11.5

Suggestion for new supplementary indicator:

Climate adaptation done solely on the basis of statistics is difficult, as statistics are retrospective and climate events occur unevenly over the years. This means that trends in the UN target 11.5 on reducing the adverse consequences of natural disasters will take a great many years to discern. We therefore propose to develop a qualified risk analysis of the future frequency of extreme weather conditions, and the estimated expenditure associated with this forecast, at the national and preferably also the municipal level.

Target 11.6

Suggestion for an expansion of a supplementary indicator:

: Today, Aarhus University measures NOx levels in a small number of Danish cities. To obtain indicators that are as locally based as possible, we suggest that the number of measuring stations be increased to cover several municipalities. This will provide a more comprehensive picture of UN target 11.6, which entails reducing cities' adverse impact on the environment.

Target 11.7

Suggestion for an expansion of a supplementary indicator:

To measure changes in Denmark's perceived safety levels, the studies must be recurrent. Similarly, the indicator would be more relevant if studies included all 98 municipalities. This would support a more comprehensive picture of UN target 11.7, which concerns giving everyone access to green public spaces.



Recommendations

With the “Baseline for Global Goals” project, we have shown how we can work with the global goals in Denmark. Denmark is a frontrunner in many areas. However, the baseline also shows that we still have some way to go to reach these goals by 2030. We are known for our cities’ sustainability, but we remain far from building sustainably. We have become better at reducing, sorting and recycling our waste, but neighbouring countries show us we can do better. Many other areas require commitment and innovation to prevent the trends from heading in the wrong direction. This is why we must keep working on the SDGs. Drawing on this project, we have compiled some recommendations for this work.

1. The global goals are primarily an agenda for change. “Transforming our world” is the agenda heading, so this is not a mere competition to find the best starting point. Rather, it is an exercise in how to use the global goals to transform our communities and generate sustainable development in Denmark and globally.

2. A baseline should be used to make the global goals more relevant in a Danish context. Using the new, supplementary national indicators, we can assess whether we are where we want to be and where we want to go across all specialised areas. The SDG baseline can be used to develop new policies that will bring us closer to the ultimate goal.

3. There is a need for even more data and more nuanced data. We recommend that the work with Goal 11 not end here. In the project we have suggested what new data would be relevant. The debate that our take on a baseline will hopefully generate can also lead to new angles and new desires for indicators, e.g., in a municipal or new national action plan.

4. A baseline must not stand alone. It cannot measure just anything, so we must use the baseline responsibly, supplementing it, when necessary, with qualitative data and with our knowledge and experience.

5. There is a need to develop baselines for all 17 SDGs, so the holistic thinking behind them can become a reality, thus giving us a solid base on which to proceed. We recommend that financing be raised to develop a unified baseline for all 17 SDGs, and that this should be done in 2019. A newly elected government will be able to base a new action plan for reaching the global goals on the new national indicators.

6. Broad involvement is necessary for future work. Thorough and broad involvement will be crucial to the development of the next baselines. The discussions generated will nuance and qualify the work on baselines so that they best reflect the reality in which the SDGs must be implemented, and so that the discussion on working with them can be truly far-ranging.