

Sustainable development goals for cities

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Abstract

It is sometimes claimed that the concept “sustainable development” can be interpreted in many different ways and therefore is difficult to operationalize and use for example in planning processes. In 2015, governments all around the world agreed on a set of Sustainable Development Goals. They are universal, connected and undividable. The goals and the document, Agenda 2030, is unique and taken together they can be seen as a global consensus on the goals for sustainable development. One of the seventeen goals is directly related to cities and urban development. For sustainable urban development it is however not enough to focus on this goal alone since important aspects are included also in other goals. In this paper we will discuss how sustainable urban development can be defined using the Agenda 2030 sustainable development goals as a starting point. Such goals are useful for example for urban planning. Experience shows that clear goals are often lacking in planning processes and that is especially so for goals related to sustainability. Goals should be relevant for different possible futures and not pending on for example uncertain specific economic developments. The focus here will be on a European and a Swedish context, but with an outlook also to other parts of the world.

Introduction

When facing environmental problems like climate change and biodiversity loss, but also issues like poverty and health, the sustainability concept has gained importance in decision-making at different levels of society. In spite of its significance, or maybe due to it, it is sometimes claimed that the concept “sustainable development” can be interpreted in many different ways and therefore is difficult to operationalize and use for example in planning processes (Gunnarsson-Östling et al, 2013). These different interpretations can be said to belong to parallel sustainability discourses that mirror different views of human relations to nature, but also in their view on justice, what are defined as problems and what are seen as solutions (Gunnarsson-Östling and Svenfelt, forthcoming).

Even if different views on nature, justice, problems and solutions exist, governments around the world agreed on a set of Sustainable Development Goals in 2015 (UN, 2015). They are universal, connected and undividable. The goals and the document, Agenda 2030, is unique and taken together they can be seen as a global consensus on the *goals* for sustainable development. One of the seventeen goals is directly related to cities and urban development. For sustainable urban development it is however not enough to focus on this goal alone since important aspects are included also in other goals. In this paper we will discuss how sustainable urban development can be defined using the Agenda 2030 sustainable development goals as a starting point. Such goals are useful for example for urban planning. Experience shows that clear goals are often lacking in planning processes and that is especially so for goals related to sustainability.

Purpose of planning

Based on European directives, according to Swedish law (PBL 2010:900, MB 1998:808), programs, plans and activities with significant environmental impact should be assessed. The

assessment should encompass an analysis of alternatives compatible with the *purpose* of the plan. The idea is that decision makers should thereby be able to decide for the best option.

The importance of alternatives in environmental assessment of plans and programs is emphasized by the Swedish government because planning takes on a more strategic level, and it may be appropriate to assess alternative solutions in a different way than when it comes to specific activities (Prop. 2003/04:116, p. 40). Comprehensive plans are therefore always seen as likely to cause significant environmental impact and they should therefore be assessed through a strategic environmental assessment (SEA).

In the research project SPEAK¹, Swedish comprehensive plans for the period 2004-2014 have been collected. Each of Sweden's 290 municipalities should have a valid comprehensive plan. However, in this dataset only 229 (79%) turned out to have that (Wallström, 2015). In order to get a deeper understanding of the plans, a stratified sample of 80 municipalities was made in the SPEAK project. This sample covers 19 out of the 21 Swedish counties and represents different types of municipalities (according to Swedish Association of Local Authorities and Regions typology). In this sample approximately 40% was describing their comprehensive plan's aim within the Environmental Assessment (Wärnbäck and Gunnarsson-Östling, forthcoming). It became clear that aims are often described in a general way (sometimes just stating what is prescribed by the Plan and building act; that the comprehensive plan should indicate the direction of the long term development of the physical environment) and not specifically for the location (Wärnbäck and Gunnarsson-Östling, forthcoming).

When the plans lack purposes, which make it difficult to come up with alternative solutions, it is no wonder that goal conflicts are not handled either. If the purpose is not clear, what goals are then to be fulfilled? Management by objectives is a substantial element of Swedish public

¹ <http://speakproject.se/en/startside/> (accessed 20160929)

administration, so there are many goals/objectives to choose between and planning should not only meet environmental objectives but also contribute to other important societal goals.

Sometimes the objectives, or proposed means to reach the objectives, are not compatible with each other. In Sweden, conflicting goals have mostly been given attention at the national level (Myhrberg, 2016). However, knowledge about conflicting goals and how they are handled at the local level is more limited. Within municipalities' comprehensive planning there is currently no practice to manage conflicts neither in the plan, nor in the environmental assessment. This has in practice led to individual municipalities trying out own solutions, with uneven results (Myhrberg, 2016). The absence of tools and support for systematic management of conflicts of objectives has also attracted the attention of the National Housing Board (Boverket, 2014) as a fundamental problem in planning at regional and local level.

Myhrberg's (2016) study of the Swedish comprehensive plans in the SPEAK stratified sample shows that only 12% of the comprehensive plans contain a structured analysis of goal conflicts, 49% contain some traces of what might be seen as an analysis of goal conflicts while 39% does not make any analysis at all of goal conflicts (Myhrberg, 2016).

By structured analysis Myhrberg (2016) means that conflicting objectives are either discussed in a specific chapter, or otherwise taken up in a way that shows a continuous observation and analysis of conflicting objectives.

Also in transportation planning, environmental goals are sometimes lacking or unquantified making it difficult to include them in the decision-making process (Finnveden and Åkerman, 2014).

One reason to make the purpose unclear and conceal conflicts of objectives can be that politicians do not want to make their choices between fulfilling different targets clear. But by stating clear purposes and clarifying goal conflicts we believe that planning could become a

matter of real choice. Instead of striving for superficial consensus and win-win solutions, the political dimensions and conflicts in play when planning for sustainable development could be spelled out. When having clear purposes, real alternatives can be assessed which means that the political content of planning will be rendered visible. Thus, different views on nature, justice, problems and solutions can be spelled out in different alternatives and assessed to clarify whether they reach important targets or not.

Sustainable Development Goals for cities

There are 17 Sustainable Development Goals in Agenda 2030 (UN, 2015). Under each of them, here are also more specific targets, altogether 169. One of the goals, No 11, is “Make cities and human settlements inclusive, safe, resilient and sustainable”. The targets under this goal are listed in Table 1.

Table 1. Targets under the SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable”

- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic Services and upgrade slums
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, Integrated and sustainable human settlement planning and management in all countries
- 11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage
- 11.5 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
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
- 11.a Support positive economic, social and environmental links between urban, periurban and rural areas by strengthening national and regional development planning
- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

However, this is not the only goal that is relevant for urban developments. In fact, since the goals are universal, connected and undividable, it may be claimed that all are relevant for urban areas. Below, we will however focus on some of the other goals that are more relevant, especially for a Swedish and a European context.

Several of the goals use the word “sustainable” and one may ask how to interpret this word in this context. As described above, the Sustainable Development Goals can be seen as a broad definition of the goal of sustainable development, a reasonable interpretation is therefore that “sustainable x” means an “x” which does not threaten any of the other goals.

Goal 1. End poverty in all its forms everywhere

This is a goal of relevance for urban settlements in all countries. One of the targets under this goal is to “by 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”. Other targets focus on social security and access to basic services which also are relevant.

Goal 3. Ensure healthy lives and promote wellbeing for all at all ages+

Targets under this heading include aspects such as prevention and treatment of drug abuse, traffic accidents, promoting mental health and wellbeing and reducing deaths and illnesses for hazardous chemicals and air, water and soil pollution and contamination, which are all of relevance for urban planning.

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Schools are a part of urban planning and providing equal access to education at different levels are thus of importance.

Goal 5. Achieve gender equality and empower all women and girls.

To end all forms of discrimination is a relevant part of urban planning.

Goal 6. Ensure availability and sustainable management of water and sanitation for all.

Providing safe drinking water and waste water treatment are classical areas for urban planning. Climate change and associated impacts may put this more in focus in the future.

Goal 7. Ensure access to affordable reliable sustainable and modern energy for all-

Under this goal, there are targets for increasing the use of renewable energy sources and increasing the energy efficiency, both with clear relevance for urban areas.

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

There are many cities that focus on economic growth and work. This goal however states that the growth should be sustainable and the work should be decent. So any growth and any work is not enough to fulfill this goal. As suggested above “sustainable economic growth” means an economic growth that does not threaten the other goals. A decoupling between economic growth and environmental degradation is thus needed as suggested by one of the targets.

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Building infrastructure is normally on the agenda for city planners. This goal emphasizes the resilience of the infrastructure.

Goal 10. Reduce inequality within and among countries

This goal is about reducing economic inequalities and the social, economic and political inclusion of all.

Goal 12. Ensure sustainable consumption and production patterns

Targets for this goal includes reduction of waste amounts and emissions to water and air. But it also includes aspects such as public procurement which is a tool that can be used also by cities.

Goal 13. Take urgent action to combat climate change and its impacts

Both adaption and mitigation are important aspects of this goal. For mitigation, the aim of the Paris agreement (UNFCCC, 2015), is to “hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change”.

Since this aim is global, cities may need a more concrete goal to work with. Based on Rogelj et al (2015), Fauré et al (2016) suggest that the 1.5°C target can be transformed to a per capita emission of 0.82 ton of CO₂-equivalents for the year 2050 with further reductions after that. Many cities have climate targets which can be either production-based (looking at emissions within the cities) or consumption-based (looking at emissions caused by consumption within the city) (Kramers et al, 2013). For cities with low industrial production, the consumption-based emissions can be significantly larger. For Sweden, the consumption-based emissions were 11 tons per capita in 2012 (Swedish EPA, 2016) suggesting that a large reduction is necessary.

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

This is a broad goal with many aspects including targets such as reducing violence in all forms.

Discussion

Even if sustainable development can still be understood in many different ways, there is a global agreement on the goal of sustainable development through Agenda 2030. Although there can be discussions about how the goals are best achieved, the goals themselves are agreed upon. Sustainable urban development can therefore start out from those of the sustainable development goals that are relevant for an urban context and that is more than SDG 11. Above, a first version of relevant goals is listed and a further discussion can be made based on the targets for each goal.

We suggest that many of these goals and targets can be used for setting the purpose and the goals related to urban planning. As described above, the purpose is often lacking in actual planning, or vaguely formulated. Based on the sustainable development goals, more specific purposes and goals can be formulated.

The number of SDGs is large even after a focusing on urban issues. For a specific plan or for a specific city, the number can however probably be significantly reduced by focusing on what is relevant for the specific context. When doing that, it is however, important to keep a holistic perspective in order to make sure that problems are not just shifted. Gunnarsson-Östling and Svenfelt (forthcoming) also points at the importance of a holistic approach that combines a view on nature as a system that humans are part of with a view on justice that means striving towards a just distribution of the access to environmental goods on different scales. If not, sustainable transitions may not be just, and may cause conflicts and power struggles between groups and scales. An example of reducing the number of goals depending

on the context is provided by Fauré et al (2016) who focus on four goals; two environmental (climate and land use) and two social related to welfare and participation.

There can be conflicts between goals but perhaps more important, there can also be synergies, so achieving one goal may help achieve other goals. It is thus important to analyse interactions between goals (Nilsson et al, 2016) and goal conflicts (Svenfelt et al, 2016).

The SDGs are often rather generally formulated, but the targets are often more quantitative and possible to use as goals for planning. As the climate example shows, it is often possible to make a more precise goal based on best available science. As the climate example also shows, large transformations may be required to reach a sustainable urban development.

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