



GUIDANCE ON INTEGRATING THE SUSTAINABLE DEVELOPMENT GOALS IN URBAN CLIMATE CHANGE ADAPTATION PROJECTS



**“GUIDANCE ON INTEGRATING THE SUSTAINABLE DEVELOPMENT GOALS IN URBAN
CLIMATE CHANGE ADAPTATION PROJECTS”**

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ABBREVIATIONS

BAU	Business As Usual
CCA	Climate Change Adaptation
GDP	Gross Domestic Product
GHG	Greenhouse Gas Emissions
HLPF	High-Level Political Forum
IPCC	Intergovernmental Panel on Climate Change
IRURE	Vietnam Institute for Environmental Planning, Urban-Rural Infrastructure
M&E	Monitoring & Evaluation
MDG	Millennium Development Goals
NCF	Nordic Climate Facility
NDF	Nordic Development Fund
NYC	New York City
SDG	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
SUDS	Sustainable Urban Drainage Systems
UN	United Nations
USD	United States Dollar
WMO	World Meteorological Organization

EXECUTIVE SUMMARY

In September 2015, all 193 member-countries of the United Nations (UN) approved of the 17 Sustainable Development Goals (SDG). As heir to the Millennium Development Goals (MDG), which were incepted in 2000 with the goal of for example halving poverty by 2015, a new and ambitious post-2015 era has begun, the 2030 Agenda for Sustainable Development. It is envisioned through the 17 SDGs and their combined 169 targets for economic, social and environmental development.

Also in 2015, at the 21st Conference of the Parties (COP21) in Paris, the 196 countries in the United Nations Framework Convention on Climate Change (UNFCCC) agreed on what is today known as the Paris Agreement. Its central aim, acknowledging the anthropogenic contribution to climate change, is to strengthen the global response and keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. In addition, the Agreement aims at enhancing countries' abilities to deal with the unavoidable impacts of climate change that occur today and will continue to do so over the coming decades.

Although climate change is relevant for all the 17 SDGs, it also has a dedicated Goal with five targets: 13, take urgent action to combat climate change and its impacts. For both the Paris Agreement and the 2030 Agenda, the common challenge is how to work with and ensure action on a local level. Neither the global goals nor the aim at keeping the temperature increase in check will be achieved without concrete action on a sub-national level. Some literature already exists on how to integrate the SDGs in cities on a strategic level. This guidance goes a step further, zooms in on Climate Change? Adaptation as a concrete challenge, and presents a hands-on, five-step approach on how to integrate the SDGs in adaptation projects:

STEP 1: Identify and involve relevant stakeholders

STEP 2: Identify the most relevant SDGs

STEP 3: Assess the level of local impact

STEP 4: Develop an initial action plan

STEP 5: Monitor and evaluate

Furthermore, the "SDG Capture tool", see section 3.2, is used to assist the process and help visualize, screen, monitor and assess the impacts of the project on a target level. Primarily, the guidance is aimed at assisting professionals, who work with climate change adaptation, like storm water professionals and civil servants at different levels, but can be used by anyone who find the topic of urban climate change adaptation interesting. The results of using this guidance will feed into the decision making process both locally as well as nationally.. This guidance is based on both academic literature and professional experience in the field and showcase how the SDGs can work as a catalyst for communication throughout different phases of a project, as well as elucidate new angles inspired by the SDGs. The guidance can be used in many different phases of the project with different purpose, as showcased by the case examples of Vinh Yen, Vietnam and Lindevangsparken, Denmark.

1. INTRODUCTION

1.1 CLIMATE CHANGE AS A CORE ELEMENT IN THE UNITED NATION'S SUSTAINABLE DEVELOPMENT GOALS

“Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow. People are experiencing the significant impacts of climate change, which include changing weather patterns, rising sea level, and more extreme weather events. The greenhouse gas emissions from human activities are driving climate change and continue to rise. They are now at their highest levels in history. Without action, the world’s average surface temperature is projected to rise over the 21st century and is likely to surpass 3 degrees Celsius this century—with some areas of the world expected to warm even more. The poorest and most vulnerable people are being affected the most.”

These are the words of the United Nations (UN) on the importance of every country to act on climate change. In September of 2015, the 17 Sustainable Development Goals (SDG) of the UN’s 2030 Agenda for Sustainable Development were agreed upon, and they came into effect on 1 January 2016. The agenda was agreed upon by every member state of the United Nations, 193 in total, and is targeting both people, planet and prosperity, as well as working towards peace and doing so by utilizing partnerships. The SDGs will set the direction towards 2030 for all countries to mobilize efforts to end poverty, fight inequalities and tackle climate change (United Nations, 2018). Furthermore, the 17 SDGs are universally applicable for all countries, regardless of income and GDP. The 17 SDGs are the overall goals for sustainable development and are showcased in Figure 1-1. Together, they comprise 169 targets that work as a set of sub-goals in order to guide sustainable development, with each target having at least one corresponding indicator. In total, 17 Goals, 169 Targets and 232 Indicators (United Nations, 2015). The SDGs contain areas of priority within economic growth, social inclusion and environmental protection, and many of the goals are interconnected. The 2030 Agenda is regarded as a framework and is not legally binding. However, member nations are expected to develop national strategies on how each member state work towards living up to the SDGs in 2030 (United Nations, 2018), and every year will see a High-Level Political Forum (HLPF) for follow-up and review of the 2030 Agenda with a special focus/with an emphasis on selected SDGs. In 2019, one of the Goals up for review is Goal 13: Take urgent action to combat climate change and its impacts.



Figure 1-1: The 17 Sustainable Development Goals (Source [UN](https://www.un.org/sustainabledevelopment/)).

Even though the SDGs are global goals, the achievement of the goals very much depend on national, regional and local actors. According to the Global Taskforce of Local and Regional Governments (UN Habitat & UNDP 2016 p. 7):

“The achievement of the SDGs depends, more than ever, on the ability of local and regional governments to promote integrated, inclusive and sustainable territorial development”

Furthermore, the United Cities and Local Governments deem that 155 of the 169 targets are relevant for local governments. In relation to this, Cities Alliance say that not involving the local urban stakeholders can lead to failing as much as 65 % of the targets (Cities Alliance, 2015). Therefore, applying the goals locally is of utmost importance to actually being able to achieve a sustainable development – and an area that calls for urgent and increasing investments in the coming decades is climate change adaptation (CCA) projects to protect our cities from the consequences of climate change.

1.2 MAJOR INVESTMENTS IN CCA ARE TO BE IMPLEMENTED IN CITIES

Despite increasing evidence, awareness and acceptance of anthropogenic climate change, planning for and adapting to climate change is still a quite new challenge in governmental administration. Climate is defined by the World Meteorological Organization (WMO) as the average weather over a 30-year period, and climate change is the systematic changes of climate variables (such as temperature and precipitation) in these periods. The UN Intergovernmental Panel on Climate Change (IPCC) defines climate change as “any change in climate over time, whether due to natural variability or as a result of human activity” (IPCC 2001).

Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850. The period from 1983 to 2012 was likely the warmest 30-year period of the last 1400 years in the Northern Hemisphere. The globally averaged combined land and ocean surface show a warming of 0.85 [0.65 to 1.06] °C over the period 1880 to 2012 (IPCC 2014).

Total anthropogenic greenhouse gas (GHG) emissions have continued to increase over 1970 to 2010 with larger absolute increases between 2000 and 2010, despite a growing number of climate change mitigation policies. For every degree Celsius the temperature rises, the atmosphere can contain 7 % more water, which affects the precipitation patterns.

Not acting on climate change could result in a loss of at least 5% of the global GDP – every year, continuously. On the other hand, action that would prevent the worst climate impacts is estimated to fall around 1% of global GDP per year (Stern, 2006). Recently it is estimated that countries closer to the equator will face an annual decrease in economic growth of upwards of 2%, resulting in a global GDP per capita decrease of 5% at the end of the century when comparing 1.5°C warming to 2°C (Pretis et al., 2018). The SDG Report from 2018 estimates that in 2017, disasters were responsible for damages of more than 300 billion USD (UN 2018).

To avoid the damages of climate change, huge investments in CCA will be implemented in the coming years in cities around the world – and it is of utmost importance that we invest wisely in order to implement CCA infrastructures in a way that bring additional value to cities and its inhabitants. The United Nations’ goals for sustainable development is a common language globally that, when applied in urban CCA plans and projects, can aid in broadening the scope and gain more value for the same investment.

The official [UN SDG website](#) underlines the importance of climate change in the transition to sustainable development by:

- Climate change is already impacting public health, food and water security, migration, peace and security.
- Climate change, left unchecked, will roll back the development gains we have made over the last decades and will make further gains impossible.
- Investments in sustainable development will help address climate change by reducing greenhouse gas emissions and building climate resilience.
- Conversely, action on climate change will drive sustainable development.
- Tackling climate change and fostering sustainable development are two mutually reinforcing sides of the same coin; sustainable development cannot be achieved without climate action. Conversely, many of the SDGs are addressing the core drivers of climate change.

Given the importance of cities in general and in achieving the 2030 Agenda in particular (Cities also have their own goal, Goal11: Make cities and human settlements inclusive, safe, resilient and sustainable), this guidance will support and guide the process in which the SDGs are implemented at local scale and contribute to cities becoming climate resilient, sustainable and livable.

2. WHAT IS THIS GUIDANCE ABOUT?

The SDGs outline a global agenda for a joint path towards sustainable development, and an effort to leave no one (and no place) behind. The implementation of the goals and subsequent success is, however, dependent on the integration of the SDGs in local agendas and local development. The saying ‘Think Global – Act Local’ never lost its force, actually, it is perhaps more important than ever, as climate change is accelerating.

This guidance takes you through a five-step approach to integrate the SDGs into your urban development and CCA projects regardless of geographic and spatial context. The process is supported with the use of NIRAS’ free tool, the SDG Capture tool, developed to aid at project level. However, the tool can also be used on a strategic level. This guidance also builds on a broad spectrum of the international SDG literature and related guidance e.g. ‘Getting started with the SDGs in cities: A guide for stakeholders’ by the Sustainable Development Solutions Network (SDSN), and it includes peer-reviewed academic literature and reports published by organizations leading the way on sustainable development, e.g. SDSN, UN and Global Taskforce of Local and Regional Governments.

2.1 WHO BENEFIT FROM FOLLOWING THIS GUIDANCE?

The target group is professionals working with urban development and CCA projects, e.g. urban, spatial and storm water planners and executives in national, regional and local authorities and consultancy companies.

2.2 THE AIM OF THIS GUIDANCE

The overall aim of this guidance is to inspire and contribute to increasing sustainable development locally.

This guidance provides:

- Professionals with a step-by-step approach to integrate the SDGs in local CCA projects
- Introduction to a tool to select, prioritize and improve local performance on the SDGs
- Two inspirational CCA cases from Copenhagen, Denmark and Vinh Yen, Vietnam

2.3 THE BENEFITS OF INTEGRATING THE SDGS AT PROJECT LEVEL

The primary benefits at the local level is that the 17 SDGs provide a common platform or common language that work as a starting point for different professions and stakeholders to discuss core issues locally such as the impacts of climate change in an urban area without having to explain the technicalities. Section 3.1 will guide you through a five-step approach on how the SDGs as a platform can be applied to initiate action on local issues.

Related to having the SDGs as a common platform, mobilizing stakeholders and partnerships, awareness raising and communication, and developing synergies across sectors, are all benefits that characterizes the process. Benefits that often result in added value and cost efficiency in a project.

The interconnectedness of the SDGs unifies sustainability efforts and adds value to a project through new synergies. Some examples of the synergies between the SDG 11 on sustainable cities and communities, and the other SDGs and their targets are highlighted in Figure 2-1.



Figure 2-1: The interconnectivity between SDG 11 targets and the other SDGs and their respective targets. Source: UN Habitat, 2018.

3. HOW TO INTEGRATE THE SDGS IN LOCAL CCA ?

The SDGs can be regarded as a “Think Global - Act Local Approach”, and especially the process of making the goals relevant at the project level is essential. In this section, we present a FIVE STEP approach for you to make the SDGs relevant in your local CCA projects. Furthermore, we briefly introduce you to the SDG tool we applied to support the FIVE STEP approach in the two cases of Vinh Yen north of Hanoi, Vietnam and Lindevangsparken in Copenhagen, Denmark.

3.1 FIVE STEPS TO INTEGRATE SDGS IN LOCAL CCA

The FIVE STEPS will lead you through a process from the very beginning to how you work with the SDGs locally. It will also introduce you to how you can apply the SDGs in the monitoring and evaluation process of a project. In the FIVE STEP approach we assume that you have oriented yourself about the 17 SDGs as a STEP Zero, otherwise you can take a glimpse through the UN Sustainable Development Goals’ website or in the tool “[SDG Capture](#)”.

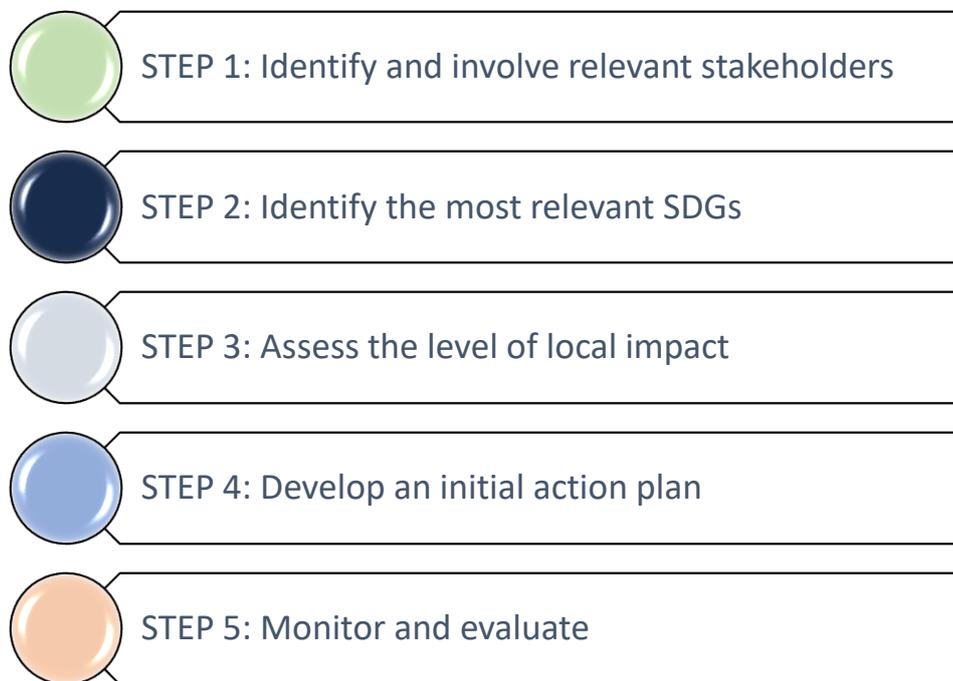


Figure 3-1: FIVE STEPS to make the SDGs relevant in your local CCA

STEP 1: IDENTIFY AND INVOLVE RELEVANT STAKEHOLDERS

STEP 1 ‘identify and involve relevant stakeholders’ is similar to many initial stages in project management, and especially in cross sectoral projects such as climate change adaptation. The SDGs also touch upon various different sectors and the key point here is to make sure that the interests of all relevant stakeholders within the project area (may be a specific geographical location) are taken into consideration – their interests can contribute positively to improve the sustainability outcome of the project.

A stakeholder analysis is a recognized method, e.g. you can apply [Mendelow’s Matrix](#) as a simple and effective tool to categorize and prioritize stakeholders (Oxford College of Marketing, 2018).

To start your process of locating stakeholders, we present five examples of working questions:

- Which areas will the project impact?
- Who has an interest in those areas?
- Who will be influenced by the project?
- Who can influence the project?
- Who are important stakeholders within our own organization?

All stakeholders of a project are important. They can be an asset providing information and knowledge that can lead to an improved and successful project, but, if not involved sufficiently, also cause opposition that in turn can cause delays that in turn increases the cost of the project. Hence, early and timely stakeholder involvement is important and vital for the successful implementation of a project.

For example, residential citizens, living in the proposed project area, know their neighborhood. They explicitly know; where flooding occurs, how the area is used, where it is unsafe to walk, where kids like to play etc. In other words, the residents are a resource of knowledge on the values and issues of a specific location. When you involve the local residents, they can contribute to your desk analysis e.g. flood risk analysis, and through their context based knowledge, you can integrate their values in your project design. This can increase the sustainability of the project and the area, and it will often minimize local resistance to the project.

Involving the local residents will engage you in dialogue with relevant stakeholders, who are able to mobilize small complementary projects. It can also help you establish an early dialogue with stakeholders that, in some circumstances and for some projects, can be in opposition. Early communication can thus help you in respect to changes and modifications to accommodate stakeholder concerns and interests. Here, you need to make sure to be clear in your communication as to which aspects of the project, the stakeholders can influence, and which are already decided and fixed. The stakeholders can also help you provide nuance to why they deem the SDGs relevant for the project, which will help you determine the level of impact on each SDG.

STEP 2: IDENTIFY THE MOST RELEVANT SDGs

When you have an overview of the relevant stakeholders of your project on the backbone of your stakeholder analysis, you can invite selected stakeholders to discuss the project in relation to the SDGs. One of the significant strengths of the SDGs is to provide the common platform or common language to discuss various interests – this is what you want to take advantage of and apply in STEP 2; to turn various and perhaps conflicting interests into a common path for the development and design of your project.

Early in the project development and execution, you probably want to start the (identification) process with a smaller group e.g. the working group of the project or the most central internal stakeholders. A CCA project will often touch upon several sectors such as urban planning, nature and recreational purposes, and storm water management. Broadening the scope of the project with the SDGs, you might also want to involve stakeholders from health, education, infrastructure, transport, etc. Bringing the stakeholders together can take the form of a workshop.

At the workshop, you will: i) present the project, ii) the issues the project first and foremost seeks to solve, iii) the importance of integrating sustainable development, and iv) the time plan, describing the implementation plan of the project.

Suggested materials for the workshop include one or more print-outs/posters with the SDGs and their specific targets for table discussions, where participants informally have conversations about how the specific project relate to the SDGs

(see Figure 3-2). The posters can be supplemented with the online tool [SDG Capture](#).

You may initiate the roundtable discussion by having the participants briefly (5 minutes) and on their own reflect on their interest in and relation to the project and the SDGs. Capturing these reflections can be done by post-its or similar. Following the individual reflections, the participants are prepared for group discussions.

The round table exercise may involve the following working questions:

- Select the one SDG you find most important within the project, mark that SDG, and explain to the group why you choose that SDG.
- Connect the chosen SDG to the two SDGs you believe have the strongest connection, mark these as well, and explain to the group why you find these connections important.

This exercise will provide you and your participants with insights of the project's direct and indirect impacts related to the SDGs and it is a transparent and constructive way to discuss potentials of the project and possible conflicts. The exercise can be replicated for different stakeholder groups with different purposes and focus areas.



Figure 3-2: Selection of SDGs and visualization of their interconnection

STEP 3: ASSESS THE LEVEL OF LOCAL IMPACT

Even though all SDGs carry equal weight and are equally relevant in the global context, your project will most likely not have an impact on all SDGs. In addition, not all SDGs will be of the same importance at the local level or have the same urgency.

In order to get a more nuanced overview of how relevant the identified SDGs are, you can assign their level of impact in the context of your project. We recommend you make a qualitative assessment, as a quantitative assessment is data

extensive and time consuming, and often not necessary at the planning stage, where the overall aim and objectives of the project are in focus. An example from “SDG Capture” is provided in Figure 3-3.

Examples of working questions:

- How does the project affect your chosen SDG?
- How can the project contribute to either increase or decrease the impact on the specific SDG targets?

By determining the levels of impacts, you gain an outline of which SDGs are most prominent in the project. The qualitative impact assessment of STEP 3 and the level of local impact can rate the impacts of the actions according to importance. If using “[SDG Capture](#)” as a tool, the qualitative impact assessment has a scale of 6. The scale of 6 include the levels: major negative effect, negative effect, none, minor positive effect, medium positive effect and major positive effect.

Also, beware that some actions might affect several SDGs, and if you apply the assessment as an exercise in a workshop, there may be more impacts than marked by the stakeholders; conversely, the stakeholders may also discover more impacts than if you did the assessment on your own. Hereby, the stakeholders may have the function to Quality Assure (QA) the SDG assessment. Furthermore, some project actions may have trade-off effects and thus a negative impact.

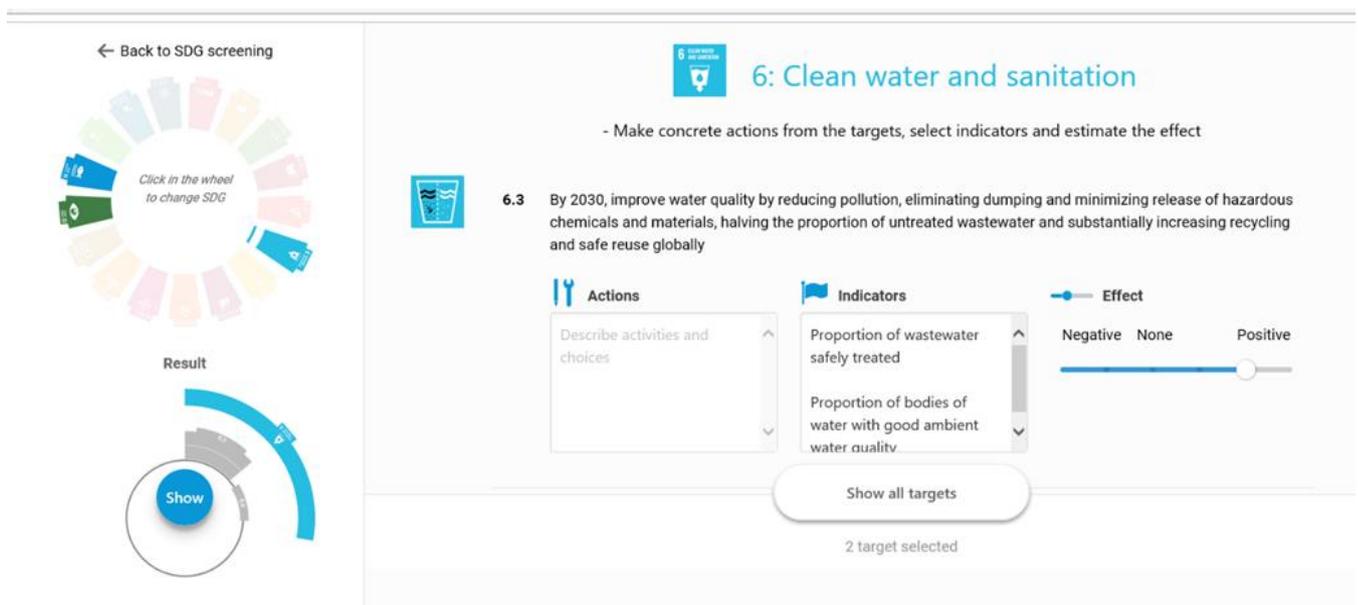


Figure 3-3: Example from “SDG Capture” on selecting the level of impact a project has on the relevant SDGs.

STEP 4: DEVELOP AN INITIAL ACTION PLAN

Related to the assessment of impact level in STEP 3, you will naturally start to consider and discuss how you can integrate mitigating measures and improve the performance of the project. You have already started your SDG action planning!

When you assess the impact of each SDG goal and target in STEP 3, add the possibility to formulate actions to improve the sustainability of your project. Using [SDG Capture](#), actions, indicators and level of effect, can be identified for each

SDG target, see Figure 3-3. When you have completed this exercise you can collect the actions and review them, as there may be synergies and conflicts between them. To finish the action plan, relevant stakeholders are to take responsibility for the actions relevant for their profession and/or interests; involvement of these stakeholders during the process will already have created ownership to these actions.

Examples of working questions:

- How does the goal fit the local context?
- How can the target be transformed into local action?
- What is needed for the goal to be achieved?
- What is needed to generate the right data?
- Will the outcome be more sustainable?
- How is the specific action of the project targeting the core challenge related to the SDG?

(adapted from Osborn, Cutter & Ullah, 2015)

STEP 5: MONITOR AND EVALUATE

When a project reaches the more analytical phases and the implementation phase, it often changes due to feasibility, time schedule, policy etc. It is thus relevant to reassess the project's impact on sustainability, when changing parameters occur – new possibilities may arise or negative impacts may have to be mitigated.

Ongoing monitoring and evaluation have the benefit of adjusting the project before it deviates from the intended track. You can apply the results of STEP 1-4 as a monitoring framework for how your project performs from the design phase through the implementation phase and to the finished project. If you use the "[SDG Capture](#)" tool, go through each target assessment frequently, and be up to date on the activities you stated in your action plan. Furthermore, your stakeholders can provide constructive feedback relevant during most phases of the project allowing you to adjust during the project process.

Examples of working questions:

- How is the project performing according to the selected SDGs?
- How is the project performing according to the selected targets?
- How can changes in the project conditions be turned to the advantage of the project's sustainability performance?
- Which stakeholders are important at this stage of the project, and how can they contribute?

Monitoring and evaluations can be carried out both internally and externally. [SDG Capture](#) may aid your process by providing an evaluation of how the project turned out in comparison with where it started, what was intended or where the final project design ended, expressed through the SDGs. This can be seen in the case example in chapter 3.3.2 *Lindevangsparken*, .

3.2 SDG CAPTURE TOOL

This guidance has applied the SDG tool “SDG Capture”, developed by NIRAS. The tool is freely available online and can be accessed from sdgcapture.niras.dk. The tool enables an easy and straightforward mapping of the SDGs and can be utilized at both project level and strategic level. This chapter briefly introduces how the tool can be applied; a more thorough explanation is provided in Appendix 2.

SDG Capture allows you to assess which goals and targets your project contributes to. It enables you to easily connect the specific actions of your project to the relevant SDGs, as well as assessing their level of impact in six stages. Ranging from major negative effect, negative effect, no effect, minor positive effect, medium positive effect and major positive effect. The negative options allow you to show trade-offs related to the project.

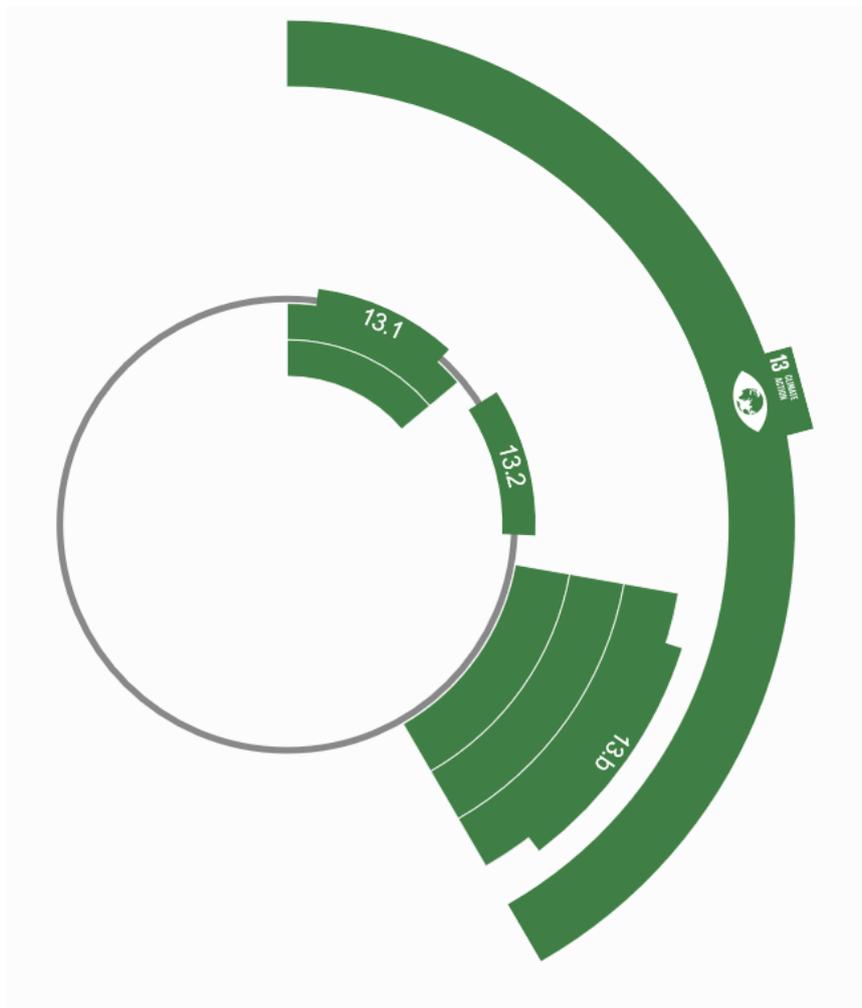


Figure 3-4: Example of visual output from the SDG Capture on three targets for the SDG 13, Climate Action. Representation of the impact on SDG targets with the level of effect showing high effect on target 13.b, none on target 13.2 and major negative effect on target 13.1.

SDG Capture delivers a visual output of each SDG targeted by the project. Figure 3-4, illustrated a snapshot of one of the SDGs and the project’s effect on three targets. Furthermore, by connecting specific actions to the targets you have the opportunity to initiate an action plan for how your project can contribute to sustainable development, expressed through the SDGs. Most importantly, the visual output is easy to understand for politicians and other key stakeholders, and you can use it to initiate and facilitate a dialogue in a common language provided by the SDGs – without losing any important aspects in technical discussions.

SDG Capture tool is applicable throughout a project period to show both current state and development.

3.3 SDG ASSESSMENTS OF TWO CCA PROJECT CASES

In the following two CCA projects exemplify the FIVE STEP approach and are assessed by the use of [SDG Capture](#).

3.3.1 VINH YEN, VIETNAM

The project 'Exploiting synergies between sustainable urban drainage systems (SUDS) and urban farming in Vinh Yen City, Vietnam' pilots the synergies between handling rainwater through SUDS and using SUDS for small-scale urban farming. The project is located in the city of [Vinh Yen](#), which is located approximately 50 kilometers north-west of Hanoi with a population of about 108,327 people. The city has long been prone to flooding and the project seeks to demonstrate one potential decentralized solution of establishing SUDS to retain some of the rainwater.

The project has implemented five small-scale pilot projects, four in private gardens and one in a kindergarten. Figure 3-5: shows one of the four private gardens as well as the kindergarten garden. The pilots showcase how climate change adaptation, urban farming and sustainable urban drainage systems can be combined to provide a way of retaining water and at the same time produce crops. The project involves a high level of citizen participation, including the Vinh Yen Women Union. The project is a result of collaboration between the Nordic Development Fund (NDF), NIRAS, the City of Vinh Yen, Vietnam Ministry of Construction (MOC) and Vietnam Institute for Environmental Planning, Urban-Rural Infrastructure (IRURE). The project was implemented with significant finance from NDF.



Figure 3-5: Shows to the left one of the four private gardens established with the SUDS and automatic gardening system. To the right, the SUDS and garden of the kindergarten in Vinh Yen is shown.

The project involves the construction of five pilot projects, one SUDS and urban farming system in a kindergarten and four pilots at rooftops and back yards in private households. The project site in the kindergarten is additionally meant to teach the children, and subsequently their parents, about climate change and the need for climate change adaptation, as well as grow organic vegetables that the kindergarten can use to cook. In the four remaining pilots, the intention is to enable households to grow vegetables to cover their own need, and then establish an extra income source by selling any surplus produce. Additionally, when the project is scaled up, it will work as a water retention system, delaying the runoffs from the roofs to the sewers during rains.

STEP 1: Identify and involve relevant stakeholders

The relevant stakeholders were identified during different stages of the project. In the first stage of the project, a stakeholder analysis was carried out to identify the main stakeholders (shown in Table 3-1) and to formulate a stakeholder involvement plan.

Table 3-1: Categorization of stakeholders in the Vinh Yen project

Involvement NECESSARY	Informed ('hostages') Citizens of Vinh Yen	Involved (resources) People's Committee and officials Citizens of pilot site The Women's Union The Farmers' Union The Youth Union The Veterans' Union
Involvement NOT NECESSARY	Orientated (external) International Donors	Heard ('grey eminences') Provincial authorities National authorities

The categorization of stakeholders in Table 3-1 was further elaborated according to their relevance and role cf. example below.

Example of a description of relevance and role of The Women's Union categorized as an involved stakeholder:

Involved stakeholders are Vinh Yen PC and officials, Citizens of pilot site, Unions and Associations (The Women's, The Farmers', The Youth, and The Veterans' Union etc.) whose key role is facilitation of project implementation and stakeholder involvement

The Women's Union is an official union, which represents the women and the union plays an important role in offering and motivating ideas of programs and for projects that is implemented by the local authority. The Women's Union role is to:

- + Support local authorities and project team to arrange meetings, workshops regarding to awareness rising and capacity building on SUDS and urban farming.
- + Support citizens to set up SUDS at the household level
- + Involve actively and contribute their initiatives, ideas
- + Motivate citizens taking part in to project
- + Improve activities to income generation, environmental protection and better living condition

The stakeholder involvement plan further contains an analysis of the main interests and wishes/demands of the most important stakeholders; see Table 3-2.

Table 3-2: The stakeholder analysis of the Vinh Yen project

Stakeholder	Main interests	Wishes or demands	Criteria of success
Vinh Yen PC	Implement the Green City Plan into practice Urban image Response to climate change	SUDS adapted to local context Gain knowledge on SUDS Being kept up to date on the project progress Mitigate flood risks and inundation	Show case for Vinh Yen
Vinh Yen officials	Capacity building	Initial workshop on climate change and SUDS	Practical knowledge and tools on CCA and SUDS
Citizens of pilot site	To grow organic vegetables, save money Improve local neighborhood	Knowledge on how to set up and operate SUDS/urban farming	That the SUDS work for small scale urban farming Strengthened community. Money saved Feel safer using own produced products
The Women's Union	Empowerment of women by increased income	Women are involved with priority in the project To be involved in the planning of and actual citizen involvement. Create additional revenue for their activities in case of taking care of SUDS and urban farming at public sites	Women obtain financial gain
The Farmers' Union	Gain experience on small scale urban farming	Knowledge share on agricultural practice and experiences Prepare rural farmers for transformation of agricultural land into urban land (already planned urban construction)	Gained knowledge
The Youth Union	To offer more opportunities for the youth	Use the project as a recruitment activity Create additional revenue for their activities in case of taking care of SUDS and urban farming at public sites	Strengthen networking between members
The Veterans' Union	To assist the Women's Union	To offer meeting space for elderly people (primarily men)	Strengthened community
Provincial authorities	To gain knowledge that can be used in their provinces	An applicable guidance on SUDS and urban farming Strengthen collaboration among provincial departments	Replicability of the project
National authorities (MOC, MONRE, MARD, MIP)	Green Growth Response to CC	To use the guidance to develop a national standard on SUDS and urban farming MOC expects technical guidance on SUDS Integration of SUDS into urban planning	To define cheaper solutions than 'grey' infrastructure to CCA Strengthening the relation between the Vietnam government and international donors (e.g. NDF).
Universities or other associations	To gain new knowledge	To integrate into researches and related works	Define new research areas Dissemination of the project in university and association activities
International Donors	To coordinate knowledge with similar projects or other projects in Vinh Yen and in Vietnam	Inspiration to replicate in other cases in current and future projects	That projects are coordinated, and synergies gained
Vinh Yen Citizens	Safe city Attractive city	[Similar project implemented in their neighborhood]	Inspired to implement similar solution

The stakeholder analysis was supplemented with an action plan for communication and involvement to secure the right timing and media or method for involvement. In the Vinh Yen project, workshops across the different stakeholders were the preferred method for involvement. Furthermore, training sessions of local government professionals and citizens were also applied.

In regard of defining the site areas for the five pilot projects, the main emphasis was placed on stakeholders with potential to be great ambassadors for the projects to showcase the benefits of combining sustainable urban drainage systems with urban farming. Since the project established pilot projects to illustrate a good example, rather than implementing a full-scale CCA project, it was assessed of greater value for the long term benefits of the project to find good ambassadors than to locate the pilot projects in relation to flood risk areas.

STEP 2: Identify the most relevant SDGs

SUDS cover the handling of rainwater on the surface and are often co-designed with urban green infrastructures. Despite the lower construction costs of SUDS, the maintenance costs are often hindering implementation. However, in several cities in Vietnam, local residents (mainly women) have begun to grow vegetables etc. on rooftops and in back yards. There is thus a potential for combining SUDS with urban farming elements and educate the users in maintaining the system while they use it for urban farming.

The objective of the project is to implement concrete SUDS designed with small-scale urban farming elements that, besides making the urban area more resilient towards flooding when scaled up, also will benefit a local community’s social resilience by providing the local residents (mainly women) the opportunity to grow crops, such as vegetables, herbs and spices. The local women are empowered when the crops are either used as household supplements or as products to be sold at a local market. Furthermore, the social elements of meeting other locals will increase the social resiliency of the community.

The project touch upon several of the SDGs and the SDG Capture tool was applied to identify the most relevant SDGs.

STEP 3: Assess the level of local impact

The SDG assessment contributes with insight on the project’s impact on sustainable development, and it also provides a platform for a dialogue on how the project can increase its performance on relevant SDGs. The local impact of the current project outline on the SDGs was likewise estimated by using the SDG Capture Tool, and the result is shown in Figure 3-6.



Figure 3-6: Targets affected in the project in Vinh Yen

STEP 4: Develop an action plan

The considerations of the potential of the project when upscaled can be integrated in the SDG action plan.

Some of the considerations in the project was, as eluded to in step 1, an emphasis on the dissemination and exemplification potential of the project, whereas finding good ambassadors was assessed higher than the relatively little effect on flood reduction. However, the project also looks at the potential for upscaling, and in that regard the impact on flood risk reduction is much higher cf. Figure 3-7.

Description of chosen SDGs			
Targets	Description	Assessment	Actions
1.5.	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	Medium effect	<p>Collection/harvesting/accumulation of rain water, and thus the resilience towards climate related disasters is a significant part of the project. The scale of the project is determining for the effect being 'medium' rather than 'large'.</p> <p>What can be done additionally? Scaling up the project will increase the effect from 'medium' to 'large', since an upscaling would result in a larger amount of retained water, which would also furthermore relieve the stress on the sewage system.</p>

Figure 3-7: Example of SDG from SDG Capture Tool

Figure 3-7 above, show the possibility of including actions to increase the SDG performance of the project in the right column. In the Vinh Yen project, the actions of all relevant SDG targets are gathered to be used in the future CCA planning of Vinh Yen and in the upscaling of the project.

STEP 5: Monitor and evaluate

When you have assessed the project in relation to the SDGs, it is very constructive to return to the assessment to follow the development of the project in regard to the anticipated and to evaluate the circumstances that affected the final SDG impact of the project.

In Vinh Yen, the project had its largest impact in relation to affecting future flood risk and CCA planning at governmental level through the formulation of a national SUDS guidance. The MOC obtained an understanding of the advantages of SUDS. The Vinh Yen pilots are integrated in the SUDS guidance as an example of small scale SUDS with synergies to the interests of private households and with a teaching potential.

Furthermore, an important aspect of the project was the success of the pilots and how they also functioned as Urban Farms in addition to collecting rainwater through the SUDS. The stakeholder feedback from the pilot projects has been overly positive. Two families expressed that they through the pilot cover their own consumption of vegetables, and still have some to spare. This surplus produce they give away. Additionally, due to connecting the SUDS to a gardening system, the inhabitants that usually used tap water for watering plants, now save money on their water bill. The evaluation from the kindergarten shows that the garden has successfully harvested three times within a seven months period. Children from the ages of three and up are participating in learning about climate change, and are planting vegetables and flowers at the kindergarten. The parents are also positive about the potential for the children to grow vegetables and flowers.

3.3.2 LINDEVANGSPARKEN, DENMARK

[Lindevangsparken](#), a park located in the municipality of Frederiksberg in Copenhagen, Denmark, was re-designed in 2014 in order to combat cloudbursts. By re-designing the park, the drainage has been improved, the park has been made safer, and the water, which is collected now, serves both a recreational and an educational purpose through being utilized in a retention basin as an outdoor stage, and for the kids to go to the park and explore how a pumping system is working. More information about the project can be found [here](#).

The old Lindevangsparken was a focal point for e.g. children's birthday on the lawn, ball games and play, older people sitting on the benches and enjoying the scene, dog walkers, and others who use the park recreationally. Despite the park's function in relation to the community and the obvious qualities that create life in the park from the inside, the relationship and connection of the urban spaces around the park are unclear. The park closed around itself, seemed inaccessible from the outside, and parts of the park appeared overgrown and dangling and, in the evening, attracted a quite different clientele than what one experiences on a sunny afternoon. In addition, there were concrete problems with runoff of the park's rainwater towards the lower lying (surrounding?) areas. The drainage routes of the park and surrounding urban areas ran from north to south. The main flow of the water allowed the collection of roof water from the nearby buildings and a visible course through the park with a natural fall towards a public space in the southwest. This gave the opportunity to think about the water's relation to the park as a new and overall story that strengthens and complements the park's existing qualities. The story of the water and its movements in the park were inspired by the source of water through various different ecosystems, for recycling and collection. The end product and appearance are presented at the public space facing the local school. Along the way, in this narrative and the visibility of the water's path through the park, sub-stories about the appearance of the water are coupled to various measures i.e. as either spring torrents, dry springs, collecting pools, wet trenches and learning place for the school children. At the same time, in the humid areas, it will be possible to establish a scrub that will give small birds better habitats.

Because the project concluded before the SDGs came into effect, the SDG Capture tool was instead used ex-post to evaluate the project in relation to the SDGs.

STEP 1: Identify and involve relevant stakeholders

The re-design of the park was a joint project between Frederiksberg Municipality and the utility company. Furthermore, several stakeholders were to be involved in the project and a stakeholder analysis was carried out and accompanied with a communication plan. The stakeholder analysis is shown in Table 3-3.

Table 3-3: The stakeholder analysis of Lindevangsparken

STAKEHOLDERS <ul style="list-style-type: none"> • <i>External</i> • <i>Internal</i> 	INTERESTS and NEEDS <ul style="list-style-type: none"> • <i>Requirements and needs</i> • <i>Wishes and anticipations</i> • <i>Primary/secondary interests</i> 	INFLUENCE <ul style="list-style-type: none"> • <i>Challenges and opportunities (oppositions/barriers support/opposition)</i> • <i>Importance of the project contributor (small, medium, large)</i> • <i>Influence on the project (small, medium, large)</i> 	PRIORITIZATION 1) <i>Large</i> 2) <i>Medium</i> 3) <i>Small</i>	ACTIONS and COMMUNICATION	RESPONSIBLE
Frederiksberg Municipality	Establish one village place at Sløjfen. Opening of the park “Lindevangsparken” and improvements of the park’s usability areas. Improve the recreational values and create a place for performance, play and learning.	Project developer with interests in the projects. Large significance and large potential influence on the project.	Large	Daily/weekly contact	Person x
Frederiksberg Utility	Climate adaptation of the area around the Lindevangsparken.	Project developer who invests the majority of the money of the project. High importance and influence.	Large	Daily/weekly contact	Person x
VandPlus partner	Desire about having one extra layer in the project, handling play, learning and urban development High profiling in the media and to professional/academic organisations.	Investor, medium influence in design. Should inspire and approve project because they want to invest in the project. Potential big influence if they would not approve the project.	Medium	Presentation of project in its different phases.	Person y/person a
Land owners along the road and at Sløjfen.	The part of the area where there has been flooding would ideally be targeted for climate adaptation while the areas where there has been no flooding would not be climate adapted. All stakeholders desired that the solutions would not affect their everyday life.	Will be affected by the project due to the changed drainage of the area. No importance as contributor to the project. Large influence in the project approval as they must accept the solution of water drainage from the roof to the road.	Medium	Communication to citizens.	Person y/person a person b
Users of the park and Sløjfen	Create a better park without changing the park’s already usable elements and functionalities. Create an attractive public space where people can meet and enjoy life.	Have a period where they cannot use parts of the park. If they are not treated with respect, it would potentially create public resistance and the project risks not being approved politically. No direct importance for the design of the project, but it would of course have indirect influence. If not treated right they could potentially have large influence on the project.	Small	Communication to citizens through workshops.	Person y/person a

STEP 2: Identify the most relevant SDGs

The initial reason for re-designing the park was the risk of more frequent and extreme flooding. Additionally, the re-design resulted in added value in other aspects, for instance by altering the terrain to use as a stage for acts and music, as well as a retention basin. Much like in Vinh Yen, the park therefore operates with many holistic and interconnected aspects, which very much is aligned with the 2030 Agenda.

STEP 3: Assess the level of local impact

The main point of the project was to adapt to and mitigate flooding and extreme precipitation. Additionally, the re-designed park provides increased biodiversity, and the climate change adaptation measures are made available for local schools to integrate in the education. Furthermore, the park was made more open and transparent in order to create a livelier atmosphere, creating a more diverse and inviting park as well as a more vivid urban area.



Figure 3-8: Targets affected in the project Lindevangsparken

STEP 4: Develop an initial action plan

The initial action plan had already been developed before NIRAS was involved. The involvement of NIRAS led to a change in the initial plan in how the precipitation was handled, as well as the amount of water that was retained. Additionally, a pump was installed to reuse rainwater for watering the plants in the park.

STEP 5: Monitor and evaluate

Because the project concluded before the SDGs came into effect, the SDG Capture tool was instead used ex-post to evaluate the project in relation to the SDGs, The result is shown in Figure 3-8.

Before the re-design, Lindevangsparken was troubled by drug dealing. The re-design made the park more open resulting in an increase in the number of people frequenting using the park making it less attractive for drug dealing. When mapped with the SDG targets an opportunity to set up a collaboration with the municipal department combating drug-related issues was discovered. Additionally, to heighten the level of citizen participation, workshops and events could be established in cooperation with event managers from the municipality. Furthermore, in addition to the playground facilities for younger kids, facilities for older children and the elderly could also be added, as the park is now heavily visited by seniors.

As part of the design phase of the project, quite a few multi-purpose ideas were integrated, resulting in the very broad range of targets that the project works with. As mentioned above, in the case of Lindevangsparken, the SDG Capture tool was applied retrospectively. This was done in order to view the project in relation to the SDGs, but more importantly how the process could have been different had the tool been available at the time of the project. This process resulted in new angles and ideas for the project, as well as consideration about how the process could have provided additional results, including involving additional stakeholders, setting up additional monitoring, integrating the park with the curriculum for the local schools as well as using the park as a case study for future projects. Figure 3-9, shows how the above description was targeted within the SDG analysis in the SDG Capture tool.

Description of chosen SDGs			
Targets	Description	Assessment	Actions
3.5.	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	Small effect	<p>Previously, Lindevangsparken was an area troubled by drugs and drug sales. After the project was finished, the park was more open and had better transparency, resulting in the drug dealing disappearing, making the park more safe.</p> <p>What could be done additionally? The municipality could have been more involved in the process of how to handle the drug-related issues.</p>
4.7.	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	Medium effect	<p>The park offers opportunities for nearby schools to use it for educational purposes, e.g. through opportunities to play with a pumping system. Furthermore, a spiral matching Fibonacci's spiral can be used by the schools to do mathematical equations. Additionally, the park enables a greater biological diversity.</p>

Figure 3-9: Example of the level of effect of each actions on the SDG targets 3.5 and 4.7 for Lindevangsparken.

4. RECOMMENDATIONS

In order to be successful in achieving the SDGs, the work globally need to be conceptualized at a local level. Locally, the strategic work is usually executed through local projects. It is therefore important for project developers to be able to assess their SDG work for their specific project. This guidance, together with the utilization of the SDG Capture tool, can be used to add value to a project by employing the SDGs and the common language, attention, and relevancy surrounding them. The tool showcased is a help for visualizing the output of the given project or strategy. The drive to integrate the SDGs, however, must be approved and determined beforehand.

The most important takeaways from each step is:

STEP 1: Identify and involve relevant stakeholders

This step in the guidance helps you to efficiently do a stakeholder analysis, aligning the stakeholders based on power and interest. The categorization of stakeholders allows you to target your information and communication effort to the different stakeholder groups, e.g. through a communication plan.

STEP 2: Identify the most relevant SDGs:

This step provides insight of the project's direct and indirect impacts, in relations to the SDGs. By including stakeholders in the determination of the direct and indirect impact that the project has on the SDGs, you gain a holistic and interdisciplinary overview of the relevant SDGs and are off to a good start in discussing the potential of the project.

STEP 3: Assess the level of local impact

After identifying the most relevant SDGs, you determine their local effect as well as describe which actions that relate to the SDG and the level of impact. When you have a clear overview of the actions within the project and the magnitude of their impact on the SDGs/targets, you can gather them all to make an action plan.

STEP 4: Develop an initial action plan

The initial action plan gives you one, unified plan for how you are going to achieve the goals. Completing the initial plan provides an integrated agenda on how your project contributes to sustainable development through the SDGs. As part of the process, it is important to monitor the progress of the initiatives and the different parts of the plan.

STEP 5: Monitor and evaluate

A solid monitoring framework will allow you to adjust the project throughout its lifetime. By monitoring the progress, the stakeholders can provide constructive feedback on how actions and measures within the projects are unfolding, and - if needed - be adapted. The final step, evaluation, will help increase learning output of the project, including how successful the project managed to integrate the SDGs. Therefore, evaluation can be used as a starting point for future projects.

The above steps and guidance are aid on the way towards successfully being able to integrate the global SDG work at the project level. If managed correctly, benefits can be achieved for all involved parties. As mentioned above, for some of the case studies, projects can achieve other benefits than originally thought at the strategic level. This improves outreach and relevance as well as feasibility and may ultimately also enhance ownership and local engagement.

REFERENCES

Cities Alliance, 2015, 'Sustainable Development Goals and Habitat III: Opportunities for a successful New Urban Agenda'

IPCC, 2001: page 2, Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Houghton, J.T., Y. Ding, D.J. Griggs, M. Noguer, P.J. van der Linden, X. Dai, K. Maskell, and C.A. Johnson (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 881pp

IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp. <https://www.ipcc.ch/report/ar5/syr/>

Osborn, D; Cutter, A; and Ullah, F, 2015, 'Universal Sustainable Development Goals – Understanding the Transformational Challenge for Developed Countries', *Stakeholder Forum*

Oxford College of Marketing, 2018, 'What is Mendelows Matrix and why is it useful for marketers?', access through: <https://blog.oxfordcollegeofmarketing.com/2018/04/23/what-is-mendelows-matrix-and-how-is-it-useful/>

Pretis et al., 2018, by Felix Pretis, Moritz Schwarz, Kevin Tang, Karsten Haustein and Myles R. Allen, 'Uncertain impacts on economic growth when stabilizing global temperatures at 1.5°C or 2°C warming' in *Philosophical Transactions of the Royal Society*, Published:02 April 2018 | <https://doi.org/10.1098/rsta.2016.0460>

SDSN, 2016, 'Getting started with the SDGs in cities: A guide for stakeholders',

SDSN, 2018a, 'Sustainable Development Solutions Network | Vision and organization', access through: <http://unsdsn.org/about-us/vision-and-organization/>

SDSN, 2018b, 'Sustainable Development Solutions Network | USA Sustainable Cities Initiative (USA-SCI) <http://unsdsn.org/what-we-do/solution-initiatives/usa-sustainable-cities-initiative-usa-sci/>

Stern, N., 2006, 'Stern Review: The Economics of Climate Change', Government of the United Kingdom, ISBN number: 0-521-70080-9

UCLG, 2015, 'The local dimension of the 2030 Agenda'

United Cities and Local Governments, 2016, 'The sustainable development goals - what local governments need to know'

United Nations, 2018. The Sustainable Development Goals Report 2018. <https://unstats.un.org/sdgs/report/2018>

United Nations, 2015, 'Transforming our world: The 2030 Agenda for sustainable development, access through: <https://sustainabledevelopment.un.org/post2015/transformingourworld>

United Nations, 2018, 'The Sustainable Development Agenda – United Nations Sustainable Development', access through: <https://www.un.org/sustainabledevelopment/development-agenda/>

United Nations Habitat, 2018. SDG 11 SYNTHESIS REPORT HIGH LEVEL POLITICAL FORUM 2018. <https://unhabitat.org/sdg-11-synthesis-report/>

FURTHER READING

Getting started with the SDGs in cities - A guide for stakeholders (Sustainable Development Solutions Network, 2016)

This report is developed as a way of initiating the work with the SDGs in cities on primarily a strategic level. It starts out with a more general description of the SDGs and their urban dimension. It is presenting the benefits of working towards a sustainable outcome and working with the SDGs, as well as showing a lot of examples of how to utilize the different tools and approaches. Especially the localization process is very thorough, though it can be overwhelming to try and keep it all in mind. Using the table of contents and executive summary to single out what is important for your context is recommended.

SDG Universality Report, Stakeholder Forum, 2015

The SDG Universality Report, authored by Osborn, Cutter & Ullah 2015, is presenting the methodology mentioned in chapter LAV REFERENCE. The report is explaining the methodology in greater detail than what has been presented in this report, as well as provide a thorough example of how the methodology was applied in a case in the UK.

UN Sustainable Development Solutions Network - <http://unsdsn.org/>

The UN SDSN webpage covers a lot of information and resources – SDG Index report, the Paris Agreement, newsletters, events, the SDG Academy, online courses, etc. Amongst all these resources, the USA Sustainable Cities Initiative (USA-SCI) can be found. It is an initiative using three pilot cities, Baltimore, New York City and San José, as test cities in order to try to integrate the SDGs. Their work, progress and current results can be found here - <http://unsdsn.org/what-we-do/solution-initiatives/usa-sustainable-cities-initiative-usa-sci/>. This includes the strategies for the three cities with Baltimore's 'Baltimore's sustainable future – localizing the SDGs' being the one recommended if one has to be chosen. Through the link some work sheets can also be found, showing part of the process of mapping the cities current initiatives to the SDGs (follow the link above and go to the end of the article), as well as a status report on the experience gained so far from all three cities.

The Sustainable Development Goals – SDGs in the municipal map, United Cities and Local Governments, 2017

This short report shows how the process of integrating the SDGs has been done in the Moroccan city of Chefchaouen. Their approach is a little different from Baltimore, NYC and San Jose, which can provide a different view of the process and open up for a new way of seeing the process.

Localizing the SDGs – www.Localizingthesgds.org

Localizingthesgds.org is a webpage with a lot of examples and experience from projects all around the world of people that have worked and are working with localizing the SDGs. It is free and publicly available, and there is material within the *initiating phase*, *enabling institutional arrangements* and *capacity strengthening* to use the overall headlines, but the projects and tools go beyond what those three headlines cover.

Sustainable Development Goals knowledge platform – <https://sustainabledevelopment.un.org/>

A platform driven by The Division for Sustainable Development Goals (DSDG) and a part of the United Nations Department of Economic and Social Affairs (UNDESA). It provides substantive support and capacity building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology, the Global Sustainable Development Report (GSDR), partnerships, and Small Island Developing States. DSDG plays a key role in the evaluation of UN system wide implementation of the 2030 Agenda and on advocacy and outreach activities relating to the SDGs.

As a sub-site under the SDG knowledge platform, the United Nations High-level Political Forum on Sustainable Development (HLPF), <https://sustainabledevelopment.un.org/hlpf>, provides a wealth of information about follow-ups

and reviews of the SDGs, the process towards the eight-day long annual assembly (July), and key documents on for example voluntary national reviews (VNRs).

Sæt Verdensmålene på Skoleskemaet - <https://www.verdensmaalene.dk/>

A Danish-language learning site developed jointly by the UNDP Nordic office in Copenhagen, Globale Gymnasier, and Mellempøkeligt Samvirke (ActionAid Denmark). The site features news, digital learning content, data and statistics, links to official Danish and UN SDG documents, communication materials, etc. The site is targeting Danish high schools, both teachers and students, and offers a very good introduction to the SDGs, inspiration, exercises and materials; all in Danish language.

APPENDIX 1

A stakeholder analysis contributes with an understanding of the different stakeholders' interests in the project and thus makes it possible to target the communication and involvement process the needs of each stakeholder. The mapping of and categorization of the stakeholders is carried out according to the below framework:

Involvement necessary	<i>To be informed</i> ('hostages')	<i>To be involved</i> (resource persons)
Involvement not necessary	<i>To be orientated</i> (external)	<i>To be heard</i> ('grey eminences')

Stakeholders, that are INFORMED: have little or no possibility to make decisions about the project, but whose contribution is necessary for the success of the project. These are in particular citizens in general, which should be informed and involved (through representatives) in the extent possible e.g. via mass-communication and workshops.

Stakeholders, who are INVOLVED: have great influence on the project and whose active contribution is necessary. These are stakeholders, who are to work on the project or has specific expertise. It may also be representatives from NGOs or similar, and brought into the project on an ad hoc basis. These stakeholders are involved in the project, e.g. as a reference or target group. The method can be interviews, workshops, meetings etc.

Stakeholders, who are HEARD: have a large possibility to influence the significant decisions in the project, however, with minimal participation in the project. These stakeholders may have great informal power in an organization, area, a management or in a powerful external organisation. These stakeholders are to be consulted either in the beginning or during the project, e.g. as part of a steering or reference group. In addition, they are to be kept informed continuously during the project.

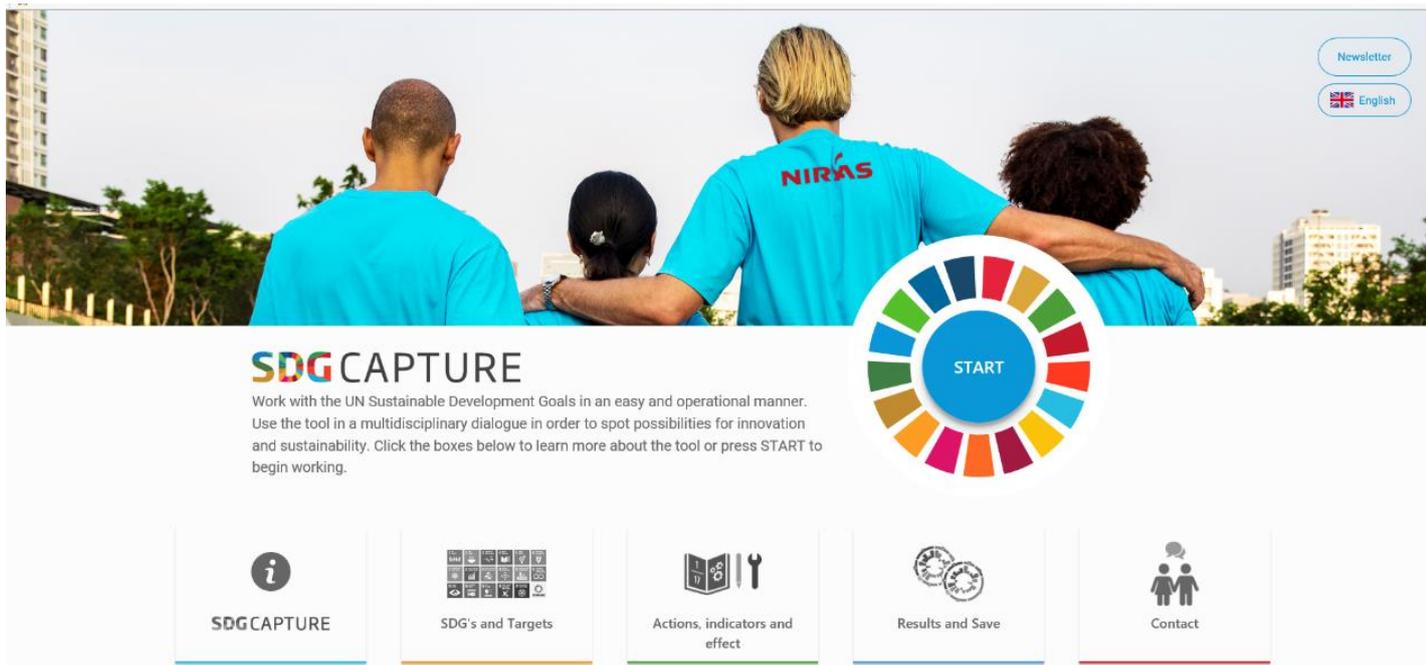
Stakeholders, who are ORIENTATED: are without any possibility to affect central decisions in the project, and whose active participation is not necessary. These stakeholders can be oriented via mass-communication, however, with attention on how they relate to the progress of the project, since they may have a potential to suddenly affect the project, e.g. if the media catch attention to the opinions of these stakeholders.

On the basis of this categorization, you can target your stakeholder involvement and information to the different stakeholder groups. For example, your communication and involvement methods will be different whether the stakeholders are internal or external, and depended on the stakeholder group and their interests. Below is an example of a scheme you can apply to make an action plan for your stakeholder involvement.

STAKEHOLDERS		INTERESTS AND NEEDS	INFLUENCE AND IMPORTANCE			PRIORITIZATION	ACTIONS
ID	Name <ul style="list-style-type: none"> External Internal 	Description <ul style="list-style-type: none"> Demands and needs Wishes and expectations Primary/secondary interests 	Description <ul style="list-style-type: none"> Importance as participant in the project Potential influence on the project Challenges and possibilities (positive/negative towards the project, conflicts, barriers, support, resistance) 	Points 1 -10 Influence	Points 1 -10 Importance	Overall assessment <ul style="list-style-type: none"> High Medium Low 	To be described in communication plan

The tool can be accessed here: [SDG Capture Tool](#)

Initially you are met with the front page of the tool that gives you an overview of what the tool does and what the outcome will be (see Image Appendix 0-1 below)



Appendix 0-1: Front page of the [SDG Capture tool](#)

1. Click **START** on the SDG circle.
2. **Description of the project**

At first you are asked to fill out a description of the project.

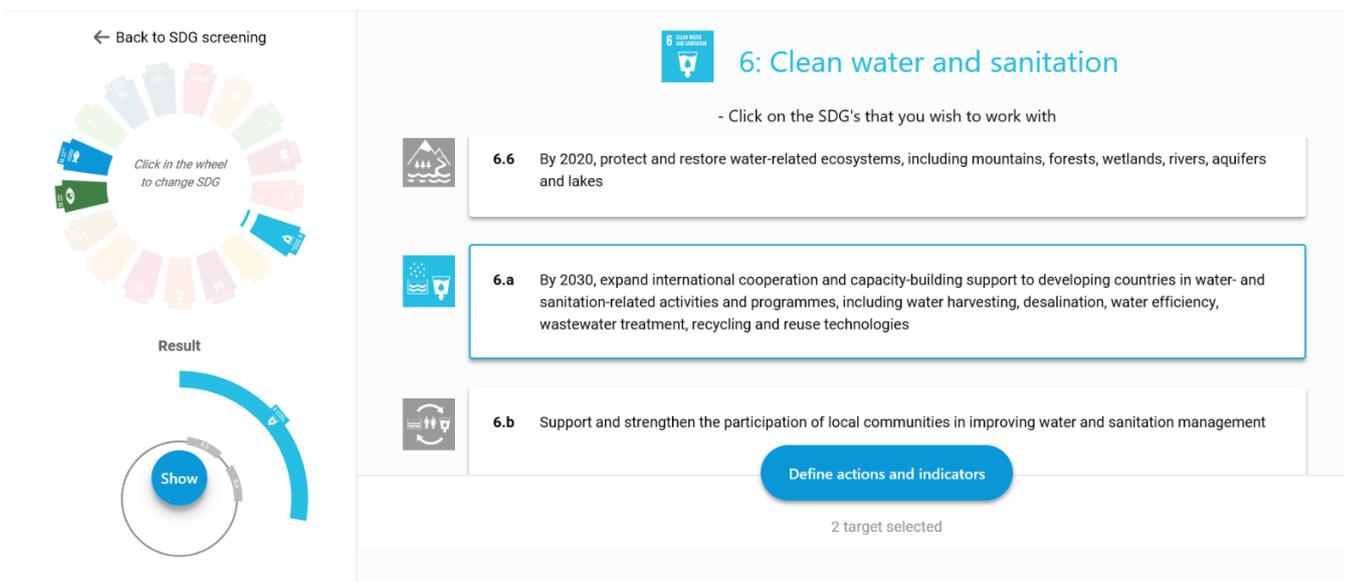
3. **Select SDGs and targets**

Now you can select the specific SDG and respective targets for your project/action, see Appendix 0-2. If you are in doubt about the specifics and the targets of the SDGs, an option is to mark all of the SDGs and go through all of the targets one by one. This will make sure that you have considered every aspect of the SDGs in relation to your project. Click **Continue**



Appendix 0-2: Selection of SDGs in the SDG Capture tool

After selecting the relevant SDGs, you are presented with a list of the targets related to each SDG. Here you can select which targets you are working with in your project, based on which SDGs you chose in the previous step. This is illustrated in image Appendix 0-3 below. The targets chosen are then displayed to the left. After doing so, you are with a list of your selected targets. For each target you have to click **define actions and indicators**.



Appendix 0-3: Selection of targets, exemplified by targets from SDG 6

4. Define actions, indicators and level of effect

For each target you then define actions, indicators and level of effect as shown in the below Appendix 0-4.

The screenshot shows the user interface for defining actions, indicators, and effect levels for a specific target. On the left, there is a circular 'SDG wheel' with 17 segments. A blue segment is highlighted, and a 'Show' button is visible below it. The main area is titled '6: Clean water and sanitation' and contains the following information:

- Target 6.3:** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- Actions:** A text input field with the placeholder 'Describe activities and choices'.
- Indicators:** A list of indicators with checkboxes:
 - Proportion of wastewater safely treated
 - Proportion of bodies of water with good ambient water quality
- Effect:** A slider control with 'Negative', 'None', and 'Positive' labels. The slider is currently positioned at 'None'.
- Buttons:** 'Show all targets' and '2 target selected'.

Appendix 0-4: Description of actions, indicators and level of effect of your project

After selecting the actions and determining the level of their impact, you get a graphical illustration of all your impacts within the project, see Appendix 0-4 Figure 3-8 for Lindevangsparken. The size of a column indicates the impact. If actions are not filled in, the columns will be grey. Actions and indicators defined, will be coloured to the respective SDG targets colour.

5. Import to a PDF

The output of the tool is a pdf with all the info. You get an overview of the project description, an overview of the effect of each target as well as a description of each action and how it affects the project.