Localizing the Sustainable Development Goals in Environmental Assessment

2023

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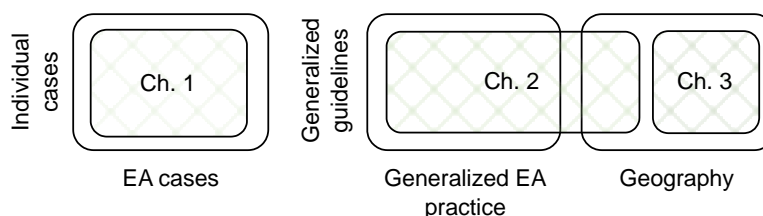
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Introduction

The Sustainable Development Goals (SDGs), their targets and their indicators are developed at a global, UN level, meaning that one of the biggest challenges to operationalizing them is ensuring their relevance and applicability to the contexts seeking to use them. In the context of the SDGs, localization is perhaps best described as "… the process of defining, implementing and monitoring strategies at the local level for achieving global, national and subnational sustainable development goals and targets" (UN Development Group, 2015: p. 6). This report addresses the localization of SDGs in environmental assessment (EA), exploring the different approaches to linking them to EA, whether it be on a case-to-case basis, or to a more generalized EA practice that stretches beyond the individual and local plan, policy, programme or project circumstances.

In this report, we identify approaches to localization as they are currently emerging in the field of EA. We first observe localization in terms of linking SDGs to the individual plans and projects, taking point of departure in isolated EAs and localizing on a case-to-case basis. We then observe attempts to generalize the localization of SDGs to broader EA practice, creating i.e. overarching guides pertaining to different phases of EA, such as scoping or the assessment of impacts. Lastly, we see localization in terms of certain geographies (local, municipal, regional, or national), both attached to or isolated from the context of EA. Each individual EA is naturally positioned within an EA practice and relates to a particular geography, however, the chapters in this report describe how localization can have different starting points and thereby be derived from different 'roots' in the EA process. The chapters are divided as follows:

- Localization to individual EAs
- Localization to a generalized practice
- Localization to certain geographies

The report will unfold these three localization types in relation to EA. Figure 1 shows the distribution of the three localization types according to chapter. Chapter 1 explores localization that emerges by relating SDGs to individual EA cases. Chapter 2 describes localization emerging from wanting to develop generalized links between SDGs and an EA practice, including also an example illustrating a practice tailored to a specific geography. Lastly, chapter 3 explores a localization of the SDGs to a geography not directly tied to an EA practice, that could nevertheless be used to inspire localization in EA.

Figure 1: Localization of SDGs through individual EA cases, a generalized EA practice and a geography. Chapters 1-3 provide the structure for the remainder of this report.

The report is a product of the DREAMS project and results in part from the work conducted within the project as well as examples of SDG integration occurring unrelated or prior to the project initialization. It is the intention that the four guiding examples can provide inspiration for EA practitioners when needing to position SDGs within the context of an EA. It should be noted that this document does not necessarily claim that the examples shown are of best practice, but instead provides approaches on a conceptual level to SDG localization. A majority of the examples provided in this report are drawn from a Danish EA context, provided the nature of the DREAMS project and that SDG integration within EA is an emerging interest in Danish practice. Other examples are nevertheless not geographically constrained or draw from other EU contexts. The authors believe that the conceptualization of localization and conclusions presented in this report are not limited to a specific geography.

Chapter 1

Localization to individual EAs

Examples

Linking to objectives

Linking to plan/project impacts

Linking to mitigation measures

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*The first type of localization of SDGs is a bottom-up approach, in which SDG localization emerges in relation to specific plans, policies, programmes or projects. The SDGs often get linked to elements of the EA individual to that EA process and rather than generalizing to broader EA contexts, these examples localize SDGs to the extent of a particular case. The examples can nevertheless be the foundations for developing comprehensive localization methods and experimenting with how SDGs can relate to different phases of the EA. The examples provided in this chapter have used SDGs in scoping, to identify relevant objectives for the EA, to plan/project impacts, and to mitigation measures. **Error! Reference source not found.** shows how the case-by-case EA examples distribute themselves throughout the EA framework.*
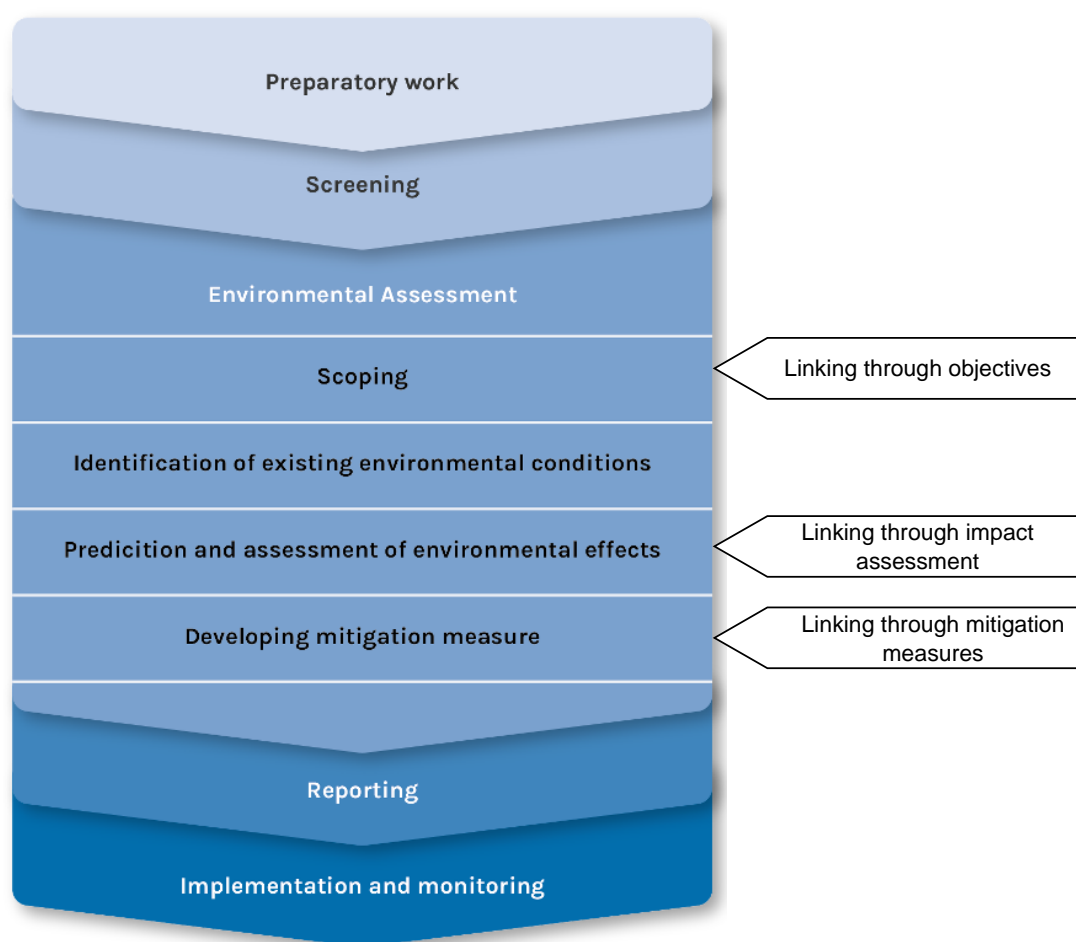
Figure 2: SDG localization in individual cases throughout the phases of EA.

Linking to objectives in EA (EA-defined and external objectives)

Addressing environmental objectives, targets and policies is not a foreign concept in EA, as understanding objectives in terms of how they relate to EA is a mandatory part of EU legislation, and therefore, already a well-established consideration in practice. However, using SDGs as a relevant policy remains rare to come by. The section will demonstrate how the SDGs can be used as objectives in EA, both by relating SDGs to EA-defined objectives

or to policies in other political levels. Doing so likewise embeds them within the EA topics for which the objectives are pertinent and demonstrates how the impacts on different EA topics can mean to have an impact on reaching certain political objectives.

EA-defined objectives

Figure 3**Error! Reference source not found.** is taken from an SEA report for the *National Marine Plan in Ireland* (Government of Ireland 2019), identifying overlap between the SEA topics and the SDGs, such as the relevance of SDGs 3, 6, and 11 for assessing impact on population and human health, and the relevance of SDG 14 and 15 in assessing impacts on biodiversity, flora, and fauna. The correlations between the SEA and the SDGs are here presumably based on how the considerations for assessing the EA topic, SEA objectives, and the assessment criteria correlate to the SDGs, but it can also be presumed that the SDGs can have a more active role in inspiring and defining assessment criteria. The extent to which this has been the case in the SEA presented is unclear. A similar example can be seen in Figure 4, where the SDGs on a target level have been directly correlated to the SEA objectives made for the *Policy Statement for Mineral Exploitation and Mining in Ireland* (RPS Group 2021).

Table 7-1: SEA Framework for Assessment

| SEA Topic	Key Relevant Considerations	SEA Objective	Assessment Criteria (to what extent will the policy …)	*Relevant MSFD Descriptor	Relevant UN SDG
Population and Human Health (PHH)	Quality of bathing waters; Recreational uses of coastal and marine areas; Employment opportunities; Accessibility	*To create an environment where every individual and sector of society can play their part in achieving a more healthy Ireland.*	• Ensure bathing waters are not prevented from achieving *excellent status* as a result of the policies / actions in the NMPF • Ensure the quality standards for water quality in shellfish water can be achieved • Maintain or improve accessibility and connectivity for island and coastal communities. • Promote access to the coastal and marine resource for tourism and recreation. • Complement and integrate with the NPF	D3 D9 D10	Goal 3 Goal 6 Goal 11
Biodiversity Flora and Fauna (BFF)	Protection of migratory species; Control of invasive species; Protection/ enhancement of protected habitats and species; Conservation of marine ecosystems; Ecosystem services	*To preserve, protect, maintain and, where appropriate, enhance biodiversity, particularly EU designated sites and protected species.*	• Safeguard marine and coastal ecosystems and the marine environment • Avoid, minimise or mitigate disturbance impacts on mobile species, within or reliant on the marine area, resulting from new proposals and existing activities • Safeguard space for the natural marine environment to enable continued provision of ecosystem goods and services and taking opportunities to enhance same • Contribute to achieving the objectives under the MSFD and the WFD • Maintain and protect marine protected areas and ensure integrity of the network is not impacted	D1 D2 D4 D6 D8	Goal 14 Goal 15
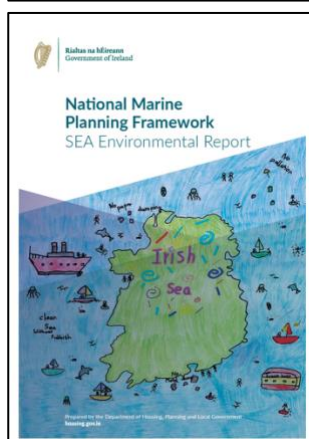
Figure 3: SEA for the National Marine Framework in Ireland. SDG goals are linked to the SEA topics. (Government of Ireland 2019: 99).

Table 7: Strategic Environmental Objectives for the Assessment

Related to SEA Topic(s)	SEA Objective(s)	Links between UN SDGs and SEA of the Policy Statement: Potentially Relevant Goal(s) and Target(s)
Population and Human Health (PHH)	Objective 1: To protect human health.	**GOAL 3: Ensure healthy lives and promote well-being for all at all ages** *TARGET 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.*
Biodiversity, Flora and Fauna (BFF)	Objective 2: Preserve, protect, maintain and where appropriate restore the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species.	**GOAL 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss** *TARGET 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.*

Figure 4: SEA for a Policy Statement for Mineral Exploration and Mining, SDGs on a target-level are linked to the SEA-defined objectives and their related SEA topics. (RPS Group 2021: xiv).

Other political levels of policies and objectives

The SDGs make up goals at a global, UN level, reaching across countries and member states as an international consensus on the direction of future sustainable development. For this reason, they are often criticized that their targets and indicators are not composed with local contexts in mind. Other political levels, such as the EU or individual countries, have their own national policies, objectives, and indicators. The same is also the case on regional, municipal and local levels, that often set their own targets for the future of planning and development. Although overlapping with the idea of localizing SDGs in EA through EA-defined objectives, it is also possible to view the SDGs as a set of objectives on one of several political levels, meaning that the objectives in the SDGs also manifest themselves in other forms of legislation at other levels of policies. In that way, the SDGs represent one level of objectives – namely the UN level – which is rooted to a local context through the other forms of policies and political objectives also relevant there.

One example is shown in Figure 5, which is an environmental impact assessment of a port development project in Aarhus, Denmark (COWI 2021). Here, the general phrase,
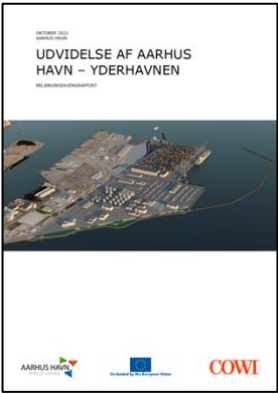
Overview of the project's significant environmental impacts and strategies/policies on different levels that are impacted in the construction phase.

Env. topic in the construction phase	Impact	Sustainability goals and objectives	Level
Introduction: land use (land filling)	Land reclamation of sea territory	SDG 14 Denmark's Marine Spatial Plan II	UN National
Resource efficiency	Material-use	SDG 12 Raw material plan Aarhus Municipality's climate strategy	UN Regional Local
Climate impact	CO_2 impact	SDG 13 Paris agreement Climate management plan 2020 Aarhus Municipality's climate strategy	UN International National Local

Figure 5: EIA for the expansion of the Port of Aarhus, showing SDGs as a political level linked to regulation and objectives on other national, regional, and local political levels. (COWI 2021: 585) (figure is translated from the original report).

'Sustainability objectives' is used to describe the different policies, the SDGs being one of them, and the rightmost column describes at what level these sustainability objectives pertain. The levels range from UN SDGs as the topmost level, to international, national, regional, and local. The chapter goes on to describe the different objectives as well as how the impact on the corresponding EA topics influences the fulfillment of the various objectives.

It should however be noted that this example is included in a sustainability chapter that is neither an integrated part of the policy and objectives section nor the assessment of EA topics in the EIA report; it is included as a separate chapter that is outside of EA legislation. The purpose of the chapter is to discuss impacts on EA topics at other political levels, that are often not an integrated part of the way that impacts are traditionally made. However, in this way, the SDGs have been localized to the specific project-context by recognizing that other levels of political policies address similar topics as the SDGs and could in fact contribute to fulfilling some of the SDGs. Thus, creating links through these political levels helps ground the SDGs in more context-specific objectives and targets.

Linking to plan/project impacts

Localizing SDGs in EA can also be done by recognizing that activities from implementing a plan/project have consequences on SDGs, meaning that the SDGs are localized in terms of their relevance for circumstantial, local activities and corresponding impacts. This recognized relation thereby builds the grounds for measuring impact on the SDGs, determining, as with the example shown in 6, whether the impact produces a positive, neutral or negative on the linked SDG target. 6 is an example produced as a result of the DREAMS project, in which activities and impacts from an old EIA of *The City Ring (Cityringen)* (Copenhagen Metro - Metroselskabet 2008) in Copenhagen, Denmark from 2008 would influence SDG targets. The exercise drew out the predicted impacts from the EIA and linked to relevant SDG targets and, thereafter, went on to assess the impact this would have. The example demonstrates impacts on SDG 3: Good health and well-being and select targets that emerge when observing one specific project. It can therefore not be assumed that the localization of SDGs in this case are applicable to other cases.

Assessments of impacts			
target	phase	activity	assessment
SDG 3: Good health and well-being			
3.4	construction	Decreased access to public spaces and recreational areas	negative
	construction	Increased impacts from noise and vibrations	negative
	operation	Reduced noise and vibrations from closing of bus routes	positive
3.6	construction	Traffic diversion	negative
	operation	Reduction of bus and car traffic	positive
3.9	construction	Occurences of air, water and soil pollution	negative
	mitigation	*Management of contaminated soil*	*neutral*
	mitigation	*Purification and treatment of contaminated water*	*neutral*
	operation	Reduced air pollution from reduction of bus and car traffic	positive

Figure 6: An example of impacts drawn from the EIA of the City Ring (Cityringen) (Copenhagen Metro (Metroselskabet) 2008) and their corresponding impacts on SDG 3 targets.

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Linking to mitigation measures

Another approach is localizing SDGs in EA practice through their relevance to mitigation measures, suggesting that the implementation of mitigation measures for a particular case can make certain SDGs relevant to implement in the EA. One example is presented in 7, taken from an EIA of the *United Bid* to host the *2026 FIFA World Cup* (Arup 2018). Here the SDGs have been localized by relating them to the proposed mitigation measures, thereby implying that SDGs are also influenced when impacts from a plan/project are reduced and that mitigation measures not only reduce impacts resulting from the corresponding project, but they also move that project towards the fulfillment of the SDGs.

Table 7 UN Sustainable Development Goals linked to assessment topics and proposed mitigation measures			
SDG	**Target**	**EIA Topic**	**Proposed measures**
Good health and wellbeing (3)	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.	Transport	Improved community health and wellbeing through facilitation of an increase in walking and cycling due to improved routes and facilities.
		Biodiversity	New green spaces will be developed which support improvements to health and wellbeing levels within urban areas.
Clean water and sanitation (6)	Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially increasing recycling and safe reuse globally.	Water	Development of a smart water grid, and implementation of smart metering.
			Implement design measures to reduce the volume of water required for heating and cooling systems.
			Implementing water efficiency measures and water recycling for pitch maintenance and irrigations, including retrofitting where appropriate. Stretch targets to consider could be achieving LEED (or equivalent) minimum requirements – e.g. zero irrigation or 30% reduction; 20% reduction in indoor water use through efficiency; installation of potable water meters.
			Specification of water efficient fixtures and fittings such as sanitary ware within new and refurbished stadium facilities.
			Investigating appropriate alternative sources of water such as cooling condensate, treated effluent, rainwater and grey water.
	Support and strengthen the participation of local communities in improving water and sanitation management.	Water	Develop opportunities to educate and raise awareness around water as a resource, and water scarcity as a risk, for example through the promotion of mains water as an alternative to bottled.
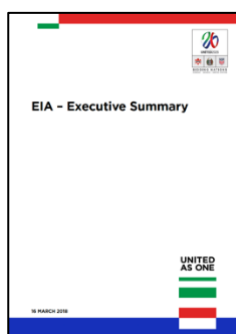
Figure 7: EIA for the United Bid for FIFA World Cup 2026. SDGs are linked to EIA topics and corresponding mitigation measures. (Arup 2018: 87).

Chapter 2

Localization to a generalized EA practice

Examples

UN Sustainable Development
Goals in Environmental
Assessment Practice: A Danish
Standard

Using SDGs to develop EIA
scoping practices: A case of
Denmark

Environmental Impact
Assessment, Health Impacts
and the SDGs

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Contrary to the case-by-case examples provided in the previous chapter where localization becomes a product of a specific EA, it is also possible to provide generalized localizations that emerge from a broad EA practice and act as a guide for localization for individual cases. These often aim to be universally applicable. The first example localizes the SDGs to a particular geography, namely Denmark, and, likewise, an EA practice within that geography. The second example localizes the SDGs a specific phase within the EA process, namely scoping, within a Danish EA context, and the third example localizes the SDGs to an environmental topic, namely human health, entirely independent of a certain geography.

UN Sustainable Development Goals in Environmental Assessment Practice: A Danish Standard

The SDGs consist of 17 goals, 169 targets, and 232 unique indicators, which are in many ways characteristic of their UN origins. Determining the extent to which the SDG framework applies to EA is considered a crucial preliminary step, that can build the foundation for further localization into the individual plan, program, policy, and project level. Through an initiative of the DREAMS project, a group consisting of consultants, project developers and researchers, determined which SDGs are relevant to EA in Denmark. The localization was made at the target level, meaning that the 169 targets were reviewed and scoped according to a relevant geography[1], thereafter, determining relevance for project-based EIAs[2], and lastly, relevance for planning-based SEAs[3]. This resulted in a total of 57 relevant targets that can be used as grounds for further localization into individual EAs, while not all 57 targets will be relevant for every plan, policy, programme and project.

The results are presented in the report, *UN Sustainable Development Goals in Environmental Assessment Practice: A Danish Standard* (Ravn Boess et al. 2022)*,* that lists how targets were adapted to the Danish reality for each SDG. For each relevant target, a brief list of more concrete examples for how the targets relate directly to EA practice is provided. This list is not exhaustive, but is a guide meant to provide ideas for localizing SDGs at their target level. 8 shows an excerpt from the report.

Localizing through the SDG targets provides, first and foremost, more detail to the content that each SDG contains, expanding the overarching headlines, that often lack the detail necessary for localization. Secondly, recognizing that not all targets are relevant can be an important first step in scoping the broad framework to fit a particular context, thereby making the SDGs more manageable and easier to work with.

Sufficiently localizing the SDGs in a certain practice requires approaching the SDGs as a broad framework, embracing a comprehensive approach to sustainability. Localizing in this way linked SDGs of biophysical, social, and economic nature to the EA, and suggested the direct relevance of 16 SDGs to EA topics. Although no target from SDG 17 was determined directly relevant to address in an EA, the goal was recognized as relevant in terms of the participatory and democratic purposes that the EA process promotes.

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[1] *Is the target relevant for the geographic area including Denmark and neighboring countries?*
[2] *Is the target relevant for project-based environmental assessment?*
[3] *Is the target relevant for planning-based environmental assessment?*

Figure 8: An example page from the report, UN Sustainable Development Goals in Environmental Assessment practice: A Danish Standard. (Ravn Boess et al. 2022: 8).

The 57 targets could hereafter be linked to the EA impact topics that they correlate with, thereby further solidifying the SDG targets to the EA process. The report makes preliminary suggestions for correlation to EA topics.

Using SDGs to develop EIA scoping practices: A case of Denmark

When localizing the SDGs to an EA practice, Ravn Boess et al. (2021) shows that they can highlight new topics that may be interesting to address in EA. The authors thereby suggest that localizing the SDGs is a matter of using the SDGs (in this case, SDG targets) to fill gaps in scoping practices. For the context of Denmark, this implies putting a greater emphasis on i.e. social or socio-economic impacts (such as the access to affordable housing or impacts on economic conditions for affected populations) (Ravn Boess et al. 2021). This approach directly transforms the traditional EA-scoping framework by expanding it to accommodate new topics, by recognizing relevance because of connecting to SDGs, or by redefining the broad EA topics to better align with topics deemed relevant in terms of reaching the SDGs.

Here, SDGs are localized by linking to the EA topics addressed in the scoping phase of an EA Danish practice, therefore not being case-specific but instead pertaining to a general Danish EA practice. Figure 9 demonstrates how the SDGs can help to elaborate the topics referred to in the environmental topics of the Danish EA scoping framework.

Sustainable Development Goals	No poverty	Zero hunger	Good health & well-being	Quality education	Clean water & sanitation	Affordable & clean energy	Economic growth	Innovation & Infrastructure	Cities & communities	Consumption & production	Climate action	Life below water	Life on land
Assessment parameters	1	2	3	4	6	7	8	9	11	12	13	14	15
Population & human health	1.2 1.5	2.1 2.3	3.6 3.9	4.7	*6.1* 6.2 6.3	7.1		9.1 9.4	11.1 11.2 11.5 11.7	12.8	*13.1*	14.4	
Economic conditions	1.2	2.3											
Vulnerability to climate-related occurences	1.5										13.1		
Impacted by catastrophes									11.5				
Access to energy						7.1							
Access to adequate sanitation and hygiene facilities					6.2								
Access to safe drinking water					6.1								
Access to nutritious and adequate food		2.1											
Access to safe housing									11.1				
Increased knowledge about sustainable development				4.7						12.8			
Biodiversity			3.6 3.9		6.3 6.6					12.4		14.1 14.2 14.4 14.5	15.1 15.2 15.5 15.8
Soil			3.9		6.3					12.4			15.1 15.3
Water			3.9		6.1 6.3 6.4 6.5 6.6					12.4		14.2 14.3	15.3
Air & climate			3.6 3.9		6.3	**7.2**		9.4	11.6	12.4	13.1		
Decreased emissions with renewable energies						7.2							
Material assets													15.2
Cultural heritage									11.4				
Landscape									*11.4*			14.2 14.5	
Natural heritage									11.4				
Resource efficiency			3.9		6.3 6.4 6.5	**7.2** 7.3	8.4	9.4	11.6	12.2 12.3 12.4 12.5		14.1	
Increased use of renewable energies						7.2							

Figure 9: Localization as a way of expanding EA scoping framework, as illustrated by Ravn Boess et al. (2021: 8).

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Environmental Impact Assessment, Health Impacts and the SDGs

Gulis et al. (2022) identifies which SDG health indicators are relevant to consider when assessing health impacts in EA. Among 42 health-related SDG indicators, defined by the Institute of Health Metrics and Evaluation (IHME 2017), 17 indicators were identified as relevant for impact assessment, that could be categorized into three groups: 1. direct health outcomes, 2. complex indicators, and 3. environmental determinant factors (Gulis et al. 2022). Figure 1 shows the relevant SDG indicators and the environmental risk factors relevant to EIA.

This example of localization attempts to root the UN-developed SDG indicators in an EA practice on the basis of an environmental topic that both SDGs and EA practice address, namely health. It thereby suggests that the indicators from the SDGs can be used to qualify the way that impacts are assessed in EA. This example draws upon the existing UN SDG indicators and determines whether they can bring added value to an EA practice.

TABLE 1 | List of identified indicators. Environmental Impact Assessment, Human Health and the Sustainable Development Goals, Denmark, 2021.

	SDG health INDICATORS	Direct	Complex	Environmental	Environmental risk factors (relevant to EIA)
1	3.2.1. Under-5 mortality	x			Water pollution (micro-pathogens causing diarrhoea), air pollution (carbon monoxide and fine particulate matter causing pneumonia), high temperature and humidity
	3.4.1. Non communicable disesas mortality		x		
2	a. Cardiovascular disease	x			Exposure to urban air pollution (fine particulate matter), metals (lead, cadmium, arsenic)
3	b. Cancer		x		Outdoor air pollution, heavy metals, water pollutants (Organic and inorganic chemicals derived from industrial, commercial and agricultural activities, and in particular from waste sites, nitrites and nitrates, radionuclides and asbestos)
4	c. Diabetes	x			Air pollution, physical activity environment and roadways proximity, polluted air, soil, water
5	d. Chronic respiratory disease	x			Indoor and outdoor air pollutants (Particulate NO_2, S02, 03) Inorganic dusts (chalk and talc), fumes and gases (metal, chlorine, SO_2, H_2S, styrene, polyvinyl chloride/methyl, methacrylate)
6	3.4.2. Suicide mortality	x			
7	3.6.1. Road injury mortality		x		Roadways proximity
8	3.9.1. Air pollution mortality				Indoor and outdoor air pollutants (Particulate NO_2, S02, 03) Inorganic dusts (chalk and talc), fumes and gases (metal, chlorine, SO_2, H_2S, styrene, polyvinyl chloride/methyl, methacrylate)
9	3.9.2. Water, sanitation and hygenie (WaSH) mortality		x		Water pollutants (Organic and inorganic chemicals derived from industrial, commercial and agricultural activities, and in particular from waste sites, nitrites and nitrates, radionuclides and asbestos)
10	3.9.3. Unintentional poisoning mortality		x		
11	6.1.1. Usage of unsafe water, summary exposure value (SEV)			x	
12	6.2.1a. Unsafe sanitation (SEV)			x	
13	6.2.1b. Unsafe hygiene			x	
14	7.1.2. Household air pollution			x	Indoor air pollutants (particulate matter)
15	8.8.1. Disability adjusted life years (DALY) due to occupational burden		x		
16	11.6.2. Mean PM2.5			x	Particulate matter

Figure 10: Health-related SDG indicators that are relevant for assessing impact in EA. (Gulis et al. 2022: 3).

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Chapter 3

Localization to a geography independent of an EA practice

Examples

Denmark's "Our Global Goals" (Vores Mål)

The Baseline for Global Goals in Denmark

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Localizing SDGs based on geography recognizes that not all SDGs are as relevant to a particular geography and that some may not be relevant at all. But it is also a matter of recognizing that the SDGs, as developed at UN level, may need modification or transformation to become operational at specific geographical levels of implementation, such as national, regional, or local. This chapter demonstrates that SDGs can be localized to certain geographical levels, independent of an EA practice, that can provide inspiration or serve as a fundament for further localization to a practice or individual EA cases as explored in the previous chapters.

Our Global Goals and *The Baseline for Global Goals in Denmark*

In many national circumstances, localizing SDGs has been a matter of identifying those SDGs that are relevant for a specific country. One example is the Danish attempt to localize SDGs in a Danish context by supplementing the existing SDG indicators with new Danish indicators that would make them quantifiably more applicable and operational in a Danish context. This was called the Danish baseline and became known as the *Vores Mål (Our Goals)* report (2030 Panel & DK Statistics 2020). A related report, *Baseline for the Global Goals in Denmark* (Danish Architecture Center & Ramboll Management Consulting 2019) is a pilot project for creating new indicators for SDG 11: Sustainable Cities. Figure is a sample taken from the report showing targets 11.1 and 11.2, the original UN indicators, comments from Statistics Denmark, and the supplemented Denmark-specific indicators.

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

Figure 11: The supplemented indicators for target 11.1 and 11.2 that position the SDGs within a specific context - namely indicators relevant for quantifying SDG fulfillment in Denmark. (Danish Architecture Center & Ramboll Management Consulting 2019: 26)

In order to align this geographical localization with an EA practice, a similar pursuit to producing EA-specific indicators could perhaps tailor the data collected through the EA process to informing SDG performance or encourage the collection of data not previously considered in the assessment of impacts.

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Chapter 4
Conclusion

A final note on the examples provided in this report is that they all have varying transformative degrees. Some examples transform the SDG framework by introducing new indicators that make the framework more operational, while others use the existing elements in the SDG framework to transform the way that EA practice is conducted – i.e., introducing new indicators for assessing and monitoring impact or new topics for assessment. In this way, it is possible to use localization to improve, and potentially transform, the EA practice to better encapsulate the aim of the SDGs or to adapt the SDG framework to better align with an EA practice. On the other hand, localization can also be a more passive pursuit with only minor alterations to a practice, such as bringing awareness to new objectives or passively linking EA topics with SDGs, without influencing the understandings of those topics.

The examples presented in this report demonstrate different approaches to localization and have, where possible, drawn from existing cases within an EA context. The report recognizes localization in terms of a geography (i.e. a national, regional, or local context), a practice (i.e. general EA practice), and a case (i.e. a specific plan/project or EIA/SEA). Table 1 provides an overview of some of the methods for localizing SDGs that were explored in this report.

Table 1: Methodological approaches to the localization of SDGs as explored in this report.

Methodological approach	Description	Corresponding examples
Refining SDG targets and indicators to an EA context	The SDGs are localized by reviewing the existing SDG framework (as developed by UN member states) and determining which SDG targets or indicators are relevant to consider in an EA context, thereby removing focus from less relevant SDGs.	*UN SDGs in EA Practice: A Danish Standard* *Environmental Impact Assessment, Health Impacts, and the SDGs*
Inventing new context-specific SDG indicators	The SDGs are localized into a context (i.e. geographic) through the development of context-specific indicators, such that measuring impact on the SDGs pertains to data relevant within that context.	*Denmark's "Our Global Goals" (Vores Mål)* *The Baseline for Global Goals in Denmark*
Transforming EA practice with new SDG-inspired topics	The SDGs are localized in EA practice by transforming – to varying degrees - the way that EA practice is understood (i.e. expanding the scope of EA topics considered, adding new objectives to EA, bringing new criteria into the assessment of impacts).	*Using SDGs to develop EIA scoping practices: A case of Denmark*
Linking SDGs to different aspects of the EA phases	The SDGs are localized by recognizing their relevance to certain phases of the EA process (i.e. objectives, impacts from activities, or proposed mitigation measures). This emerges from a localization to a specific EA case.	Individual EA cases*: Linking to objectives, plan/project impacts, and mitigation measures*

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