

SDG Monitoring at the Local Level

Recommendations for developing a harmonized indicator set
for Local Government Associations and their partners



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**Developing a harmonized indicator set for SDG monitoring at the local level:
Recommendations for Local Government Associations and their partners**

I. Introduction: context and purpose of this paper

The UN 2030 Agenda for sustainable development and the importance of local monitoring

The UN 2030 Agenda with its 17 sustainable development goals is the globally agreed agenda for achieving sustainable development by 2030. The agenda aspires to 'transform our world', by addressing all major development challenges of our time in a holistic manner.

Local Governments have a very important role in the implementation of the SDGs. It is estimated that 65% of the SDG targets depend on the direct action and involvement of local governments for their achievement.¹ It is therefore essential that national level strategies for implementation of the SDGs reflect and respond to local circumstances, needs and priorities. Local Government Associations can promote this. They can also help ensure that local achievements are recognized and incorporated into national SDG progress reports.

Equally important is that local governments incorporate the SDGs into their own policies budgets and plans, to improve their own development impact, and that they monitor their contributions. In this way, the 2030 Agenda can enhance local decision making and promote local accountability. Many municipalities are already aligning their policies with the SDGs to some degree, and are motivated to measure and report on the results achieved. Some local and regional governments have started producing their own Voluntary Local Reviews (VLRs) for evaluating their achievements and plan ahead accordingly. To monitor progress towards the SDGs effectively, local governments need suitable indicators which are relevant to the SDGs and at the same time match the local context. In line with the objective of leaving no-one behind, the UN 2030 Agenda has an explicit aim of disaggregating data for monitoring as much as possible, to better reflect and understand development outcomes for different social groups and territories. The capacity for timely, adequate and disaggregated data collection at the local level is still a major challenge. Stronger systems for local monitoring and data production need to be built. In order to contribute to the monitoring of local data aligned with the SDGs, this paper sets out to guide Local Government Associations to realize a standard set of localized SDG indicators. We recommend consulting the Guidelines for Voluntary Subnational Reviews (2021) by UCLG and UCLG-CIB which provides a flexible, cohesive and concrete approach when embarking upon this journey that can be adapted to the needs, objectives and capacities of each Local and Regional Government Association can adapt them to its own needs, objectives, resources and capabilities.

¹ Comparative study on SDG monitoring systems at local and regional levels, p. 10

Existing local monitoring systems

Due to widely varying circumstances across countries, it is hard to create a globally applicable set of localized SDG indicators which meets the needs of local governments everywhere. Creating a standard set for one region or country is more feasible.

Indeed, a range of local and regional governments, associations, national governments and other organizations have already developed monitoring and evaluation tools to assess subnational contributions to the 2030 Agenda. The *Comparative Study on SDG monitoring systems at local and regional levels* (2021), issued by UCLG, UNDP and two Spanish subnational governments, offers a good overview of existing systems to monitor how regions and cities are performing. The study notes that there is a “diverse ecosystem of indicators, data sources, dashboards, tools and guides”. Some systems track all 17 SDGs, others only a subset. Yet others reflect the 2030 Agenda in a few overarching themes. The indicators that are used in these tools range from simple to complex, and the amount of indicators from 28 to well over 200. For example, the Brazilian Association CNM pioneered the Mandala tool, a set of 28 indicators grouped into four dimensions of sustainable development: economic, social, environmental and institutional.

The *Comparative Study* discusses a variety of such SDG monitoring systems, including those of regional and local governments in Europe, South Africa and Latin America; Local Government Associations and networks in Brazil, Germany, Belgium and Sweden; the World Association of Major Cities (Metropolis) and the EU Reference Framework of Sustainable Cities; the national governments of China, Indonesia and Kenya; international organizations such as UN-Habitat; universities, think tanks, CSOs and knowledge networks such as *Know Your City*, a global campaign led by Slum Dwellers International.

Various organizations provide expert support to national and subnational governments in the process of creating such tools and systems. They may also help with data collection, monitoring and assessment. United Cities and Local Governments (UCLG) has issued a lot of relevant guidance with respect to local tasks and mandates in relation to the SDGs. This includes the SDG Learning Module 3 (Reporting to national and local reviews, 2019) and the Guidelines for Voluntary Local Reviews, developed jointly with UN Habitat. See the list of resources at the end of this paper. While all these studies are very relevant to their local contexts, and carry important elements worthy of international knowledge exchange, no studies were found that aimed to embody general guidelines for Local Government Associations on how to set up their own local monitoring system for the SDGs. The latter is exactly what this paper embarks to set out.

Purpose and focus of this paper

The studies and guidelines referred to contain a lot of information with respect to indicator types and data sources. Why then this additional paper? When we at VNG - the Netherlands Association of Local Governments – started our own trajectory towards developing a standard indicator set for SDG monitoring in Dutch municipalities, we could not find a concise ‘process manual’ or methodology with this particular focus.

Our assumption is that documenting and sharing some of our findings can be useful for other Local Government Associations that consider to embark on a similar effort. We have interacted with the South African Local Government Association (SALGA) to check the relevance of this methodology for partners elsewhere in the world.

This paper is not a detailed and complete methodology, but a set recommendations with respect to those components that we deemed the most important. In Section II it highlights some key steps in the process of putting together the indicator set. The paper does not address the actual use of these indicators for decision making or reporting.

Section III discusses several content-related considerations related to the choice of indicators. We offer some examples of our own, but other sources are also frequently referred to.

II. Steps in the process of developing a standardized indicator set

Although the components listed in this section are numbered, these steps do not reflect a strict chronological order. In practice, several steps may be undertaken in parallel.

1

Define the purpose of the indicator set and identify needs and expectations of key stakeholders

For Local Government Associations considering to develop a 'harmonized' or 'standard' set of indicators for local SDG monitoring, and possibly an online data tool, a first step is to specify clearly the objectives and the main target group. What is the main purpose? And is the indicator set intended for all municipalities or a more limited group (for instance major cities only)? An obvious purpose of all SDG monitoring systems is to gain insight in and measure progress towards the SDG goals and targets. However, the specific purposes may vary, and this may influence the selection of indicators.²

At VNG, we have stated as our overall objective 'to develop a set of relevant and user-friendly standard SDG indicators for Dutch municipalities, in order to obtain insight in current performance'. Based on these indicators, or at least a subset, an online SDG-dashboard with recent data for most or all municipalities will be displayed on VNG's website.

The target group are all municipalities which are interested in using such a harmonized data tool in support of their work on the SDGs.

² Comparative Study pages 36-37: Purpose of local monitoring systems.

Therefore, the leading principle has been that the selected indicators - and the corresponding data - must provide relevant information for municipalities' own decision making process. The possibility to 'benchmark' results with the performance of other municipalities, based on a single value for each indicator, can be helpful but this is not always required. The municipalities that worked with VNG wanted the data tool to assist them in:

1. Demonstrating progress / trends in local SDG implementation;
2. Measuring the effects of existing policies;
3. Evaluating and prioritizing local policies and efforts;
4. 'Capturing' efforts at integrated policy making in quantitative information; and
5. Communicating results to citizens/society.

In the Netherlands, the SDGs have not been translated into national and (most) subnational strategic plans. The SDG monitoring tool will therefore be complementary to existing monitoring mechanisms and provide additional angles. Elsewhere, particularly in countries in the global South, (sub)national development strategies are often more directly aligned with the SDGs. If this is the case, a set of localized SDG-indicators is likely to have a more direct connection with local plans and budgets. An example is found in the eThekweni Metropolitan Municipality in South Africa, where the municipal Integrated Development Plan (IDP) is directly aligned to the SDG indicators. The municipality has been able to track the municipal performance towards the SDGs based on this direct alignment.³ For example, the municipality identified SDG 11 as the key goal that the municipality will localize and monitor.



³ Comparative Study, p. 42

2

Decide whom to involve, and organize the process in a participative manner

When developing an indicator set, it is important to ensure active involvement of at least some key stakeholders through a participative process. The HLPF report *Toward the Localization of the SDGs* states that “The most effective monitoring systems are based on joint and coordinated efforts between different tiers of government, LRGs at the same territorial level, and/or stakeholders.”⁴ While this is true for the process of monitoring, it may also apply to the development and validation of an indicator set. Relevant actors to engage may include: policy and program units within the LG Association and municipalities (make sure that all relevant disciplines are covered!); national or regional statistics bureaus; planning agencies; sectoral departments; and non-government actors such as research centers, private companies, UN agencies and CSOs.

The *Comparative Study* also notes: “Monitoring public policies and measuring results are key for allowing local and regional governments to make themselves accountable to the populations they serve and to report results and impacts. Lessons can also be extracted to improve the policy making process and identify best practices. In this context, LRGs can ensure that citizens and other stakeholders have a say by ensuring that all relevant data, including the ones produced by NGO actors, are integrated in the local monitoring systems. They can also make sure that (...) the results of the local monitoring systems are publicly available.” The Study recommends the use of non-governmental data “as a means to incorporate new views, overcome data gaps and verify and validate official data sources”.⁵

A decision must be made early on which body(ies) or institution(s) will take (co-)responsibility and pay for the development and the active maintenance of the data tool, including data production, and who will host the dashboard or portal – if applicable - on a website that can be accessed by municipalities and other actors (see point 7).

The VNG – more specifically the team of the *Municipalities for Global Goals campaign* and staff of the statistics department – undertook the work on a common indicator set with the active involvement of a diverse group of municipalities, of different sizes. Some, notably the city of Utrecht, were already using their own SDG Dashboards and indicators.

In the initial stages, consultations were also held with the Ministry for the Interior, and the national statistics agency CBS, amongst others. We have not broadened up the process of indicator development to a wider group of (non-state) actors. However, every effort has been made to look at the indicator set from a wide and critical perspective (see Section III). The SDG dashboard on the VNG website will be an open source.

⁴ Toward the Localization of the SDGs, p. 125

⁵ Idem pages 15, 58

3

Identify local level mandates, key tasks and policy priorities in relation to the SDGs, in order to ensure a relevant set of indicators

A key requirement for a local SDG monitoring tool is that its indicators focus on areas for which local governments bear actual responsibility, or which they can at least meaningfully influence. Therefore, it is important to start the exercise from a proper understanding of local roles and responsibilities in your specific country (decentralization) context, and how local governments can make a difference. UCLG has produced helpful general guidance in its [Roadmap for localizing the SDGs](#) and its [booklet](#) explaining the typical roles and mandates of local governments in relation to each of the SDGs. In the Netherlands and Belgium, the VNG and its Flemish sister association VVSG have assisted their members by producing guidance on the specific mandates, tasks and responsibilities of municipalities in relation to the SDGs.⁶ In the Netherlands, all municipalities have the same legal status and responsibilities. Elsewhere, for instance in Brazil, several legal categories of local government exist, with significant differences in roles and mandates. For this reason, Brazil's Mandala tool distinguishes seven different levels of local development.

To enhance the relevance of the SDG indicator set, it is important to have a clear and up-to-date idea not just of the general responsibilities, but of the actual policy priorities for each SDG and for key cross-cutting issues. If these priorities are not evident, it is advisable to make an inventory prior to indicator selection. Otherwise, indicators may be selected which are less relevant or not aligned with local realities. Topics which the (local) media report on frequently are likely to be among the issues which people care about most. When municipalities have sufficient resources, they can look beyond formal mandates and pick indicators related to additional efforts which they can make for achieving the goals.

⁶ See the English version of the Flemish brochure [here](#).

4

Map which indicators and data sources are already available and accessible

Creating new indicators and corresponding data production is a worthy investment as it provides insight in the sustainability of existing policies. Yet, it is also a time consuming, and often rather technical exercise. It is therefore recommended to source the indicators and corresponding data for the SDG monitoring tool as much as possible from existing (general, sectoral or other) tools and data sets which are easily accessible and periodically updated.⁷ This may include your own local system, but also regional, national and even international data bases, such as those from the World Bank, the City Prosperity Initiative of UN-Habitat, or Eurostat for countries in the European Union.

The logical starting point would be the UN Global Indicator Framework for the SDGs. However, in practice, the application of this framework with 232 globally agreed indicators poses significant challenges, especially for subnational governments.⁸ While, according to UN-Habitat, around one third of the UN indicators could be measured at local level, the availability of data is still weak for many indicators. Moreover, even those indicators which could be applied locally often require adjustment to better suit the local context and available data. To illustrate this, the *Comparative Study* lists three SDG 11 indicators from the UN Framework and describes their suitability according to the City of Barcelona. It also has an interesting table with an overview of the selected indicators for SDG 5.5, 7.2, 10.4 and 11.7 from six different indicator sets.⁹

The challenge is to find indicators which align as much as possible with the thematic focus and spirit of the SDG targets and the UN indicators, while simultaneously ensuring that these indicators correspond with local needs. From the VNG indicator set, these are some examples of indicators that were adjusted or substituted by an alternative to better fit the local context.

UN Indicator	VNG indicator
2.1.1 Prevalence of undernourishment	<p>- Percentage of population above 18 years with a body mass index below 18.5 (source: Health monitor for the adult population)</p> <p>-Average number of meals issued by the local food bank (NB: no centralized data available)</p>

⁷ See Comparative Study pages 45-47 on data sources.

⁸ See on this topic, for instance, the Guidelines for Voluntary Local Reviews of UCLG and UN-Habitat, p 35

⁹ Comparative Study, pages 41 and 45

UN Indicator	VNG indicator
4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	-Percentage of 18-30 year olds enrolled in school or with a 'starter qualification' (those who graduated from high school or secondary professional education at a certain level), disaggregated for groups without and with (different) migration backgrounds (source: neighborhood monitor of the Knowledge platform Integration and Society)
12.2.1 Material footprint, material footprint per capita, and material footprint per GDP	The total volume of household waste in kilograms per inhabitant in one year (source: national statistics agency)

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Potential sources for the indicators may include existing monitoring systems related to income, health, access to education, housing, safety, land use, water quality, use of renewable energy, biodiversity, etc. From such different sources, indicators can be assembled which, taken together, cover all major aspects of the SDG Agenda and which can be merged into one integrated SDG data tool. A key requirement is that up-to-date data are available for all (or most) municipalities that belong to the target group. In the Netherlands this group includes all interested municipalities. In Germany, the Local Government Association (Deutscher Städtetag) runs an SDG portal with 47 indicators to measure performance in 80 cities.

The progress indicators used by pioneering cities in your own country or region may also offer a good starting point. However, the local capacities for monitoring and data collection usually vary widely. Large cities often have significant resources for gathering and producing data and information through their own data offices. Small municipalities on the other hand may have hardly any resources for this. This is why Local Government Associations can provide a valuable service to their members not just by developing and hosting a standardized SDG monitoring tool, but also taking care of data collection with periodic updates. In Brazil, the data for the Mandala tool are collected by a team of CNM experts, with limited direct participation of the municipalities. This system allows local governments of different types and categories to compare their performance. However, a disadvantage is that "the potential to enhance the policy making process is limited by the lack of qualitative information that contributes to understanding the results for the different indicators".¹¹

¹⁰ Table made by author.

¹¹ Comparative Study p. 21

Local government Associations worldwide may benefit from the work done on indicators and data collection by their national governments, or from work done by the World Bank, UN and other international agencies. The UN-Habitat City Prosperity Initiative (2012) was set up to support local and national governments in establishing their own local monitoring and reporting mechanisms in line with the New Urban Agenda. The CPI Covers around ¼ of the SDG indicators including all SDG 11 indicators. It has a basic, extended and contextual 'scenario'.¹² UN Habitat is currently developing an updated version of the urban monitoring framework that allows for better SDG tracking.¹³

The South African Government has developed its own mechanisms related to SDG implementation. The Department of Planning, Monitoring and Evaluation conducted a study in 2017 to establish the baselines and identify critical areas that require localization of SDGs. A system called the *Goal Tracker*, administered by Statistics South Africa, was established to track and measure the performance in the country for selected domestic indicators.¹⁴ In 2019, a Country Report (Voluntary National Review) was produced on the status of SDG-implementation in the South African context, based on this Goal Tracker.

In the EU, the *European Handbook for SDG Voluntary Local Reviews* was written as a guide for the selection of appropriate SDG indicators in European cities. It discusses 71 indicators across all 17 goals. This may be a valuable resource also for actors outside the EU.

Prior to developing its own SDG indicator set, VNG analyzed the indicator tools which were developed by the Flemish, German and Swedish sister-associations, as well as the sets used in some Dutch cities (such as Utrecht and Leeuwarden). We noted that some (types of) indicators appear in all these monitoring systems and are also relevant for all Dutch municipalities. Some other indicators could be copied with limited adjustments.

But for some SDG targets, other indicators are required to best reflect the actual situation in the Netherlands. For this purpose, we took many indicators from existing (sectoral) dashboards of the VNG statistics department and from other sources, such as the national level Climate Monitor.¹⁵

¹² Urban Monitoring Framework. <https://data.unhabitat.org/pages/city-prosperity-index>

¹³ Ibid.

¹⁴ See <https://south-africa.goaltracker.org/platform/south-africa>

¹⁵ Waarstaatjegemeente (<https://www.waarstaatjegemeente.nl/>) is the data portal of the VNG for all municipalities. It uses data mostly from existing open sources. The Climate Monitor is a national data bank with a wide range of data regarding carbon emissions and energy systems. <https://klimaatmonitor.databank.nl/>

5

Formulate criteria and requirements for the selected indicators and decide which number, type and mix of indicators are suited

A point for consideration is the number of indicators in the standard indicator set, and their distribution across the 17 SDGs. For a 'workable' tool, the number of core indicators per SDG may be restricted, for example 4-5 indicators on average per SDG. But this could be complemented with additional (optional) indicators. For example, the Association of Flemish Cities and Communities (VVSG) developed a basic chart of 54 indicators, complemented by an additional set of 205 indicators.

It is recommended to think about specific requirements for the indicators at the outset. These can be distinguished into 'formal requirements' and 'requirements of substance'. The second category is discussed in more detail in section III. Data experts from the LG Association, local governments or other partners can advise on requirements that indicators for the SDG data tool must meet in order to be practical, relevant and reliable.

A key requirement of form is that indicators are measurable, based on the availability of reliable underlying data. Another important requirement is non-ambiguity and preciseness: it must be clear what each indicator measures and how accurately.

The *European Handbook for SDG Voluntary Local Reviews* sets out the following criteria in its brief paragraph on methodology for selection of indicators:¹⁶

- > Alignment with the UN's Global Indicator Framework for Member States.
- > Relevance to the European context.
- > Relevance at local scale.
- > Covering areas of competence of local governments.
- > The number of cities/municipalities for which data is available.
- > Timeliness, time coverage and comparability over time. Timeliness refers to the time gap between the collection of data and the publication of the indicator. Time coverage allows a study of trends over time. Comparability refers to the ability to compare an indicator's development throughout time.
- > Balance: indicators selected must cover the environmental, social and economic pillars of sustainable development in a balanced way.

Other requirements may include, for instance:

- > The level of possible disaggregation.

¹⁶ European handbook p. 18-19

- > The dynamic nature of indicators. Static numbers which hardly change over time are of little relevance for a basic data tool.

A point to keep in mind is that, for some SDGs and SDG targets, few indicators will be available that meet such requirements. To avoid leaving out whole thematic areas, there may be a strong case for investing in obtaining new data for such areas.

6

Develop the (draft) list of indicators and validate the proposal

The actual process of putting together a (draft) set of indicators in line with the national and local context requires detailed work. This can be done by one person, a small group or divided over several actors, as long as the internal coherence of the set is ensured and the results are validated by a wider, multi-disciplinary team.

At VNG, we organized several rounds of consultations with our municipal reference group to discuss and review potential indicators for the standardized set. Data experts and policy officers discussed the 'pros and cons' of various types of indicators for several 'clusters' of SDGs, as well as current data availability. After the initial joint work, the more detailed work of proposing a set of indicators was done by an external expert. The consultant produced a draft indicator set based on:

- *The Global Goals in municipal policy*, a guidance note that was issued by VNG based on an extensive mapping of local priorities for the SDGs in the Netherlands.¹⁷
- the detailed notes from the initial consultations rounds on the SDG indicators.
- existing SDG indicator sets and (non SDG-related) data portals and dashboards.
- available insights regarding priorities for those areas where few indicators exist, based on (inter alia) literature and interviews.

The consultant followed a 'two-tier' approach. Firstly, for each SDG she proposed five or sometimes more types of indicators. The indicator type is related to the choice of thematic focus (i.e. which SDG targets are covered in the basic indicator set) and to the preferred nature of the indicator (for example quantitative or qualitative). This selection requires a judgement regarding the overall representativeness and balance of the indicator set (see more on this in section III). Secondly, for each type of indicator, a choice of one or more specific indicators was presented.

¹⁷ See <https://vng.nl/sites/default/files/2020-04/handreiking-global-goals-in-het-gemeentelijk-beleid-2020.pdf>

Example: SDG 5

Indicator type: an indicator with respect to ending discrimination of women and girls and ensuring their full participation in society (SDG 5.1 and 5.5)

Proposed specific indicator: gender gap in the labour market (proportion of women's participation in the labour market as a proportion of men's participation)

Alternative specific indicator: an indicator with respect to equal pay of men and women in the municipal organization. This lies within the immediate sphere of influence in the municipal organization (but no centralized data available)

The consultant explained the choices she made in a background document, with ample reference to the nature of the SDG agenda and why some indicator types would match the SDG agenda better than others. In the above example, the proposed specific indicator - and its alternative - relate to the domain of the labour market, because in the Netherlands this is one of the areas where gender-based differences are most apparent.

Providing a good explanation for the choice of each indicator is important because, when looked at from a more isolated sectoral perspective, the choice might be different. Sectoral experts might sometimes prefer indicators which are relevant for domestic targets, but less so from the perspective of integrated sustainable development.

The draft proposal that was presented for validation contained a range of alternative options to choose from: a choice of thematic focuses, of indicator types and of specific indicators.

This proposal was discussed and tested with the reference group of the VNG and municipal (data) experts, and sectoral policy units within the VNG. It was also submitted for approval to the VNG Committee for European and International Affairs.

It helps to bear in mind that there is no such thing as the perfect indicator set. Therefore, after sufficient preparation, it may help to just launch the tool. After it starts being used, it can be further improved based on feedback received from its users.

7

Ensure attractive presentation, easy access and regular updating of data:

Developing sound monitoring systems and keeping these up-to-date with periodic data collection requires adequate human, technical and financial resources. It is important to agree beforehand who will take on responsibility for this. Ensuring data availability and timely updates is essential for an effective SDG monitoring system. The frequency of updates may be linked to the frequency of national or local level reporting. But Local Government Associations can also create open data portals to which local government stakeholders, including citizens, have access at all times. The German SDG portal indicators are updated at least every 3 years, depending on the resources needed for each indicator.¹⁸

Ideally, the data collection for most of the selected indicators is done in a central manner, for example by the national statistics agency or cadaster. The Association can take on the responsibility for uploading such data in its portal. For example, the VNG's data portal is linked to other (open) sources. A service provider sees to it that, when these external sources are updated, the same data is automatically updated in the VNG portal.

In this way, local governments are relieved from the burden of collecting data and the consistency in data information is ensured. However, for some specific indicator types the active cooperation from the LG organizations in data production may be required.

When online data tools are used, the indicators and data may be visually presented as mere statistics, but they may also be visualized in more graphic forms, using cartography or otherwise. To enable a good understanding of the indicators, some concise information is often added such as: the definition of the indicator (what exactly does it measure or express?), the method of computation and the source. An example of this is the South-African goal tracker. Some organizations, such as UN Habitat in the City Prosperity Index, use detailed information sheets per indicator, containing more elaborate explanations, baselines, target figures, etc.

¹⁸ *Comparative Study* p. 49

III. Content-related considerations: which type and mix of indicators provide a fair and coherent representation of progress with the SDGs

In addition to the 'formal' criteria which indicators must meet (see point 5 above), it is important to consider some criteria of substance: which indicators ensure a balanced overall picture of progress towards the SDG, and address the most relevant dimensions of the UN 2030 Agenda? This section contains some recommendations in this regard.

1 Select indicators which are relevant to the local, national or regional context

In order to be relevant, the nature of the selected indicators must bear a relationship to key domestic – and possibly regional - features such as socio-economic characteristics, the presence of specific vulnerable groups (for instance refugees or indigenous groups), geography (for instance coastal or landlocked position), main types of land use, climate and disaster risk, the prevalence of conflict.

Examples:

- A common theme for SDG 11.1 across all countries globally is access to affordable and decent housing. In large urban areas in low income countries, indicators for SDG 11.1 are likely to focus on the number of people dwelling in slums and on slum improvement. In high income countries, indicators might instead be related to specific groups who face difficulties in accessing affordable housing (e.g. the young or old, students, migrant workers).
- In the global South, the main priority related to SDG 6 is often to ensure access to safe drinking water and sanitation for all (SDG 6.1 and 6.2). In the Netherlands, universal coverage of these services has been achieved, but efforts are needed to ensure more efficient use of water and to better protect water based ecosystems (SDG 6.4 and 6.6.)
- Some countries are already faced with the devastating effects of climate-change, such as flooding or droughts. The UN indicator 1.5.1 and 13.1.1 (Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population) can be relevant in such countries and can possibly help assess the effectiveness of disaster prevention or adaptation measures. Elsewhere, risk awareness could still be at an early stage. Here, a choice can be made for 'experimental' indicators and cartography, such as for 'heat

vulnerability' and 'urban flood risk', as in the European Handbook's proposal for SDG 13 indicators (for SDG Voluntary Local Reviews).¹⁹

In a harmonized indicator set used by LG across the country or a region, allowing for very local specifics is more challenging. However, additional – optional - indicators can be included for specific types of municipalities or local factors. Users of the data tool can also add their own indicators.

2 Ensure an appropriate balance of quantitative and qualitative information

a) To assess actual progress towards the SDGs, statistical/quantitative information at outcome level is essential. Examples of UN indicators of this nature that can be measured locally include, for instance: percentage of the population living below the poverty line (UN indicator 1.2.1); prevalence of undernourishment (UN indicator 2.1.1.); proportion of population using safely managed drinking water services (UN Indicator 6.1.1.); renewable energy share in the total final energy consumption (UN indicator 7.2.1). The current values and multi-year trends for such indicators are indispensable information for decision makers. However, while local governments can contribute to improved outcomes, they usually do not 'control' results at outcome level as there will be other factors at play. In some cases, statistical information at outcome level may also provide limited guidance with respect to concrete policy choices.

b) Quantitative information at output or input level can provide insight into the nature and quality of (municipal, regional, etc.) government efforts, services and programs. For some SDG targets the UN indicators are set at this level, such as: proportion of births attended by skilled health personnel (UN 3.1.2); passenger and freight volumes, by mode of transport (UN 9.1.2); primary government expenditure as a proportion of original approved budget, by sector (UN 16.6.1). As the *Comparative Study* puts it: "Choosing between input and output measures should be done in a pragmatic manner. Input metrics can sometimes be key in driving and tracking the changes needed for sustainable development".²⁰ As we saw earlier, the municipality of eThekweni in South-Africa has aligned its actions and budget to the SDG targets and indicators. In Brazil, there were plans to produce a second version of the Mandala that would focus on linking SDG indicators to municipal services. "This will allow for showing the big development imbalances existing in the country from a gender, environmental, social and technological point of view, and for better addressing the different realities and needs from each city and public service".²¹

¹⁹ This example is also included in the *Comparative Study*, table on page 43

²⁰ *Comparative Study*, p. 43

²¹ *Ibid.*, p. 2

c) Achieving positive outcomes for all citizens and population groups requires awareness of the subjective experience of citizens of their own wellbeing and of municipal services. For this, qualitative information is required, which can be obtained from citizen surveys and opinion polls, for example. This type of information will help local governments to reflect in a qualitative manner on the story behind the data. Among the UN indicators, examples of this category are: proportion of population that feel safe walking alone in the area where they live (UN 16.1.4); proportion of the population satisfied with their last experience of public services (UN 16.6.2); proportion of population who believe decision making is inclusive and responsive, by sex, age, disability and population group (UN 16.7.2).

Indicators in category b and c can be very relevant to local authorities. However, there may be less suitable for inclusion in a harmonized data set for a whole region or country. Sometimes the information required can be obtained from centralized data sources. For instance, the national level *Climate Monitor* in the Netherlands tracks certain developments at output level, such as the percentage of roofs covered with solar panels in each municipality. But, in many cases, obtaining data at output or input level will require active collaboration from local governments in the production of data. As noted above, capacities for this differ widely. What is the most effective mix of indicator types in a given context requires judgement and careful balancing of advantages and disadvantages. The mix of indicator types may also vary per SDG. For example, the subjective experience of citizens is particularly relevant information for monitoring some of the targets of SDG 16.

Example: different ways of looking at SDG 3

One way to measure progress for SDG 3 (healthy lives and wellbeing for all) is to look at statistical trends in physical and mental health, such as the incidence of various diseases, or mortality rates. Indicators of this nature dominate in the UN Indicator Framework. Another angle is how people experience their own health. In the Netherlands, health monitors often contain such qualitative data. Alternatively, the focus can be on coverage of health services and access to these services by various groups. At VNG we have opted for a mix of all three types in our indicator set, so that different types of information complement each other. Some of the indicators that we have selected for SDG 3 are:

- Percentage of population which consider themselves to be in (very) good health, by age.
- Percentage of adult population with obesity.
- Average waiting time for mental health care (adults and youth separately).
- Client satisfaction rate for municipal services in the area of social support and youth care.
- Percentage of population which uses primary care, by neighborhood.
- Number of traffic incidents per 1000 of population.

3

Balancing the thematic pillars of Sustainable Development and making interlinkages visible

A core principle of sustainable development, and key aspiration of the UN 2030 Agenda, is that countries meet the needs of their own societies ('here and now') without compromising the ability of people elsewhere in the world and of future generations to meet their needs.²² Achieving this requires a very conscious balancing of public policies in the social, economic and ecological domains (often referred to as People, Planet and Prosperity). Despite decades of commitments and declarations, such a balance is still direly missing, both at the global level and within most countries. (Global) economic growth has been achieved at huge cost for the natural environment and for communities who depend directly on natural resources for their livelihoods. It is now posing existential threats for the planet and mankind. At the same time, too many people have not benefited from economic growth. Addressing the existing imbalances requires, amongst others, concerted and interrelated efforts to reduce poverty and inequality, reduce carbon emissions, restore biodiversity and transition to economic development models that respect planetary boundaries. The preamble to the UN 2030 Agenda clearly stipulates the holistic and interrelated nature of the 17 SDGs.

Local governments can play their part, both through their own actions and by using their convening power. Indicators to track SDG progress locally should therefore cover the different pillars of sustainable development in a balanced manner and enable a good understanding of the interlinkages among them. Such interlinkages can be both positive (synergies) and negative (trade-offs). Eurostat, the statistics agency of the EU, has included a chapter on the interlinked nature of the SDGs in the 2021 edition of the EU's SDG monitor.²³

A challenge is that many 'traditional' development indicators have not been designed with such an integrated approach in mind. As a result, a positive trend for one indicator may go hand in hand with a negative trend in other areas. This can lead to inbuilt contradictions in an indicator set. There is, for example, a growing awareness of the limitations of GDP as an indicator for positive development. In the VNG indicator set, we have avoided indicators that merely reflect material growth.

A simple way of ensuring at least some balance in the indicator set is to take 'traditional' indicators from different fields in more or less equal numbers. In this way, GDP-related indicators may be balanced by indicators for air quality, soil health or carbon emissions, and complemented by social

²² The Brundtland Commission included in its report *Our Common Future*, 1987, the most authoritative definition of sustainable development so far. <https://www.un.org/en/academic-impact/sustainability>

²³ *Sustainable development in the European Union. Monitoring Report on progress towards the SDGs in an EU context, 2021 edition*, pp 40-44

indicators which shed light on changes in employment and incomes of different social groups. Additionally, interdependencies could be visualized with the help of arrows, SDG icons or otherwise. Another approach is to include a choice of 'cross-thematic' indicators which are relevant for more than one SDG target. For example, an indicator on the number of households which have difficulties affording their energy bill is relevant for SDG 1 (poverty), SDG 7.1 (access to energy for all) and SDG 11.1 (housing). The percentage of hard surface in cities and settlements is relevant for SDG 13 (climate) but also for SDG 3 (health), SDG 11 (access for all to green spaces) and SDG 15 (biodiversity). Job growth in renewable energy is relevant to SDG 7 (energy transition) but also SDG 8 (decent work for all) and SDG 9 (sustainable industries).

In its *Issue Note on Measuring urban green growth* (2016), The OECD looks specifically into indicators and measurement processes to monitor different aspects of 'green growth' at the city level. Most cities collect data both on economic growth and environmental and natural resources, but they do not routinely combine these. Indicators which do reflect a combination of the two are typically input or output oriented, such as the number of solar panels installed.²⁴ The study also finds that significant gaps remain in covering natural resource depletion and environmental degradation. In the Netherlands, we need better indicators for measuring the transition to a circular economy (SDG 12) and to sustainable agriculture (SDG 2.4). In the VNG indicator set, we have included indicators such as 'the share of organic farming in total agricultural production' and environmental indicators which are closely associated with intensive agriculture, such as excess nitrogen per hectare. But there is no standardized data collection for such indicators. Further work will need to be undertaken. The *Milan Urban Food Policy Pact Monitoring Framework* may offer inspiration with regard to indicators in the area of nutrition and sustainable food production.

²⁴ *Issue Note. Measuring urban green growth: the concept, data and adequate mechanisms for tracking progress.* OECD 2016

4

Choose indicators which contribute to inclusive outcomes

Next to balancing the different dimensions of sustainable development, another core general principle of the SDG Agenda is to leave no one behind. The importance of reducing inequalities among and within countries is reflected in SDG 10, but inequalities need to be addressed in all thematic areas. For this reason, the 2030 Agenda stresses the importance of indicators across the different goals which capture the situation of different social groups, including those who are most at risk of exclusion, and not just 'the average'. Indeed, the UN 2030 Agenda has an explicit target (SDG 17.18) to disaggregate monitoring information as much as possible by an intersection of income, gender, age, race, ethnicity, migratory status, disability, geographic location and other relevant characteristics. In practice, availability of such disaggregated data remains a major challenge. This is why a combination of quantitative and qualitative data is preferred. New data sources produced closer to the populations will be required (including from non-governmental sources). This can be an explicit action point to be agreed while working on an SDG indicator set.

At VNG, we looked at available information on (i) who are the most vulnerable groups and (ii) the areas of life where inequalities are felt the most, such as education (all outcomes), housing, the labor market and representation in decision making. Based on this analysis, indicators have been included which reflect the trends for different groups in these areas. See for instance the indicator for SDG 4.1, mentioned on page 6 of this paper. Unfortunately, very few existing databases in the Netherlands have disaggregated data based on gender.

5

Consider the impact of local action on people and ecosystems elsewhere

In the Netherlands, the Environmental Assessment Agency (PBL) has done considerable work on mapping the global ecological and climate footprints of consumption and production in (and for) the Netherlands. Such dimensions are not well covered in the SDG targets and the UN indicators, nor in domestic indicators. Local Governments, notably in higher income countries, may (unwittingly) impact the lives of people and the health of ecosystems elsewhere through their decisions. This is true in particular for the way they organize the municipal procurement process and by allowing – or avoidance of – certain types of economic activity in the municipality. Do local governments pay attention to corporate social responsibility? Do they, in their procurement decisions, make any requirements towards suppliers with respect to responsible social and environmental behavior in the supply chains?

Other examples of negative spill-over effects include, for instance, carbon emissions, or the environmental impact which may – unfortunately – be implied in some of the renewable energy sources. Burning biomass at a large scale may prompt deforestation; wind turbines require metals which may be associated with unsustainable mining practices.

Indicators for measuring such spill-over effects – and measures to counter them - are scarce. The 2021 SDG monitoring report of the EU devotes a chapter to this topic.²⁵ Currently, such indicators (often composite indexes) are mostly developed for the country level. Developing one or more appropriate local indicators could become part of an action agenda.

6 Reflect both positive and negative trends and avoid cherry picking as a way around 'sensitive issues'

When deciding on indicators, it is worth looking at a mix of both 'positive' indicators (for instance participation rates in primary and secondary education) and 'negative' indicators (for instance early dropouts from school). In these examples, the issues are related but the focus is different. It is certainly a good idea to select indicators which reflect the positive contributions that local governments can make with their actions and services. However, indicators which are more likely to reflect current negative situations are also important.

A final aspect that we offer for consideration is the extent to which selected indicators reflect the core underlying factors that really make a difference. This may well include issues which are considered politically 'sensitive'. After all, existing negative features such as environmental pollution or the exclusion of certain social groups are often directly or indirectly related to political choices, whether at the central, regional or local government level. To stay away from controversy, it may be tempting to select non-controversial indicators, or resort to cherry picking.

However, the UN member states have, in embracing the UN 2030 Agenda, committed to more concerted efforts for sustainable and just societies that leave no one behind. It is therefore legitimate to select indicators which reflect the need for 'extra' efforts, especially in those areas with notable lack of progress. Avoiding such areas out of political expediency will obviously not help moving closer to the SDG targets. Indeed, SDG 16 requires effective, transparent and accountable governance and this in turn requires the courage to look at root causes of current negative SDG trends or stagnation.

²⁵ Sustainable development in the European Union. Monitoring Report on progress towards the SDGs in an EU context, 2021 edition, p. 45-54

For example, if the lack of affordable housing is due to liberalization of the housing market and the crowding out of people with moderate and lower incomes by wealthy investors (who buy and then rent out available apartments at high prices), then a suitable indicator would provide information about ownership patterns and price hikes in the current housing stock. Construction of new (social) housing units may be required, but if the underlying dynamics do not change, this will offer only a temporary solution. Picking an indicator on the number of additional houses built may then distract from the real cause of the lack of affordable housing and growing inequalities.

To enhance the relevance of the selected indicators, external experts including civil society organizations can be asked to check the proposed indicator set for possible blind spots.

Colophon

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Contact

globalgoals@vng.nl

+3170 373 84 01

www.vng-international.nl/sustainable-development-goals

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VNG International

P.O.Box 30435

2500 GK The Hague

Tel +31 70 373 8401

Tel +31 70 373 8660

vng-international@vng.nl

www.vng-international.nl

vng-international.nl