Impact Report BNG ESG Bonds for Dutch Municipalities

Full report

July 2023

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About

About Het PON & Telos

Het PON & Telos is a renowned research institute based in the Netherlands. It was formed through the merger of two well-established research organizations, Het PON and Telos, in 2020. The institute specializes in conducting interdisciplinary research and providing expertise in various domains, including social issues, sustainable development, and regional development.

Het PON & Telos aims to generate knowledge and insights that contribute to a better understanding of society and support evidence-based decision-making. They collaborate with government organizations, non-profit organizations, banks, and academic institutions to address complex challenges and promote sustainable and inclusive development.

Sustainable development is one of the key areas of expertise for Het PON & Telos. They undertake research and consultancy projects related to sustainable development, environmental impact, energy transition, circular economy, and social responsibility. By combining their expertise in sustainable development with social and economic factors, the institute helps organizations navigate the complexities of sustainable development and make informed decisions that balance environmental, social, and economic stakes.

About BNG Bank

BNG Bank is a Dutch promotional bank and has traditionally been the bank for the public domain and the public interest in the Netherlands. The bank is owned by the Dutch central government (50%) and local governments (50%) in the Netherlands, and it has provided financing to the public sector since 1914, at competitive terms and conditions.
Its clients are Dutch local authorities and institutions that are active in the social housing, healthcare, education, energy and infrastructure sectors. The majority of loans provided by the bank (more than 90%) are granted to or guaranteed by government bodies.
The bank has got the highest credit ratings by all three major credit ratings agencies (Moody's: Aaa; FitchRatings: AAA; S&P Global: AAA).

 BNG Bank's mission statement is 'Driven by social impact'. This purpose is leading for all BNG Bank's activities. Instead of maximizing profits, its priority is to maximize the social impact of its activities. BNG Bank has set ambitious targets in its "Road to Impact strategy", to increase the impact in the Dutch public sector. In measuring this social impact, the UN Sustainable Development Goals (SDGs) are used as the point of reference. BNG Bank also launched its Climate Plan 'Going Green', which outlines how the bank plans to reduce emissions from the credit portfolio and those arising from its own operations in line with the 1.5°C target of the Paris Climate Agreement in the coming years.

BNG Bank is driven by the core values of sustainability, reliability and professionalism. BNG Bank is convinced that these conscious choices will enable it to achieve its ambitions: to be the promotional lender that delivers social impact and that is considered by clients and other stakeholders as their go-to partner for addressing the social challenges they have to cope with. Per year-end 2022 BNG Bank has a long-term loan portfolio of EUR 88 billion.

SDG performance report of Dutch municipalities

In this report, Het PON & Telos presents a newly developed framework to measure the sustainable development of municipalities along the Sustainable Development Goals of the UN. The SDGs are based on decades of work by countries and the United Nations (UN) and prominently became part of the sustainability agenda in 2030.

In this report, when referring to scores, the years 2016 to 2023 refer to the reporting years. This means that data prior to 2023 are used to calculate the scores; scores and data are no prognoses.

In the figure below, results of the 2023 framework can be found. The SDGs are scaled from 0 to 100, higher values represent better performance, lower values represent worse performance.

The above figure illustrates that there have been notable advancements towards the Sustainable Development Goals (SDGs) since 2016. Particularly noteworthy is the significant improvement observed in SDGs 1, 7 and 16. Furthermore, SDGs 5, 8, and 9 have also experienced some improvements compared to their scores in 2016.

The remaining SDGs have generally remained relatively stable, with some exhibiting slight improvements or decreases.

Figure 2, located below, provides a comprehensive overview of the score developments over time.

Figure 2   Development in time of the SDG scores

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1   Introduction

1.1   The role of municipalities

As of March 2022, the Netherlands has 344 municipalities. Those municipalities vary in size, population, landscape and history. As one of three layers of our public administration, they are closest to the day-to-day lives of Dutch inhabitants and are mainly responsible for policy directly related to their inhabitants. The municipal board decides over public greenery, social housing, several forms of healthcare (mental healthcare amongst others), the construction of (public) buildings and infrastructure. In addition to the implementation of their own policy, municipalities are responsible for implementing national policies, as well as enforcing public order and safety, maintaining social services and employment opportunities, promoting economic prosperity and good healthcare (healthcare at home, care for the elderly etc.). In short, municipalities are for a large part responsible for the day-to-day business of the Dutch inhabitants, and hence play a crucial and important role in the well-being and liveability of the Netherlands.

1.2   Contemporary challenges for Dutch municipalities

The Netherlands is currently coping with what can be described as a 'polycrisis'[1]: A situation in which several complex challenges are coming together; what is also referred to as a perfect storm. Those challenges include a transition towards sustainable energy, paired with rising energy prices, geopolitical challenges, an asylum crisis, also a result of ongoing geopolitical tensions, both in Europe and globally. Furthermore, there is a shortage of affordable housing, resulting in a housing market that is increasingly geared towards the higher social classes, increasing the already growing gap between the 'haves' and 'have-nots'[2]. On top of that, the Netherlands are coping with extreme weather patterns; very dry summers and wet winters, resulting in heat and drought-related issues like heat stress. The societal debate on these challenges also faces its own challenges due to an increasingly polarized society and a hardening debate.

This means that municipalities are currently dealing with ways to provide adequate shelter for people who are seeking asylum, whilst making sure that inhabitants are still able to pay their energy bills and ensuring a transition towards sustainable energy solutions etc. Simultaneously, they are searching for available space to build affordable housing, competing with the search for suitable areas for sustainable energy and natural area expansion, whilst being responsible for the financial distribution of national allowances. Hence, there is no shortage of challenges for the local Dutch public administration.

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[1] Rotmans, J. (2022). Er zijn zware jaren in aantocht, dus moet de overheid hard ingrijpen. Trouw.
[2] Hoff, S., Vrooman, C., Iedema, J., Boelhouwer, J., & Kullberg, J. (2021). Verschil in Nederland 2014-2020; Zes sociale klassen en hun visies op samenleving en politiek.

1.3 The position of Dutch municipalities in the wider EU context

The Netherlands is a densely populated and wealthy region within the EU. The Dutch population contributes 3.3% to the total EU population, while the surface area of the country is only 0.9% of the total EU surface. Its GDP contributes 4.3% to the total GDP of the EU. The high population density and high economic output, in combination with its location in a delta of several larger European rivers, defines to a large extent the specific sustainability challenges of municipalities in the Netherlands. During its history, the Dutch have struggled to gain land from the sea; spatial planning and water safety therefore have been high priority policies for centuries. An additional characteristic of Dutch municipalities is their relatively large number and small size.

Most municipalities in the Netherlands are rather small to very small. So, metropolis type of sustainability problems, as can be found in Paris, London, Rome, Hamburg, Vienna and Barcelona, which are all above 1 million inhabitants, are less intense in the cities of the Netherlands. The largest, Amsterdam and Rotterdam, have fewer than 1 million inhabitants.

Yet, other factors than municipality size, such as GDP/capita, high density of economic activities (including intensive cattle raising) per km^2, a locally diminishing population size, sea harbour activities, industrial history, tourism, etc. are also important from a sustainability point of view. Dutch villages and cities are characterized by high specialization in an environment of close neighbours and the need to offer their population a high potential of environmental, social and economic qualities.

1.4 The role of municipalities in climate policy

Municipalities play a crucial role in the implementation of the Dutch climate accord. Based on that accord, municipalities have got a substantial number of tasks on top over their normal responsibilities. Those tasks include (not exhaustive): drawing up a regional energy strategy with other municipalities, supporting agricultural businesses, supporting sustainable transportation and develop plans accordingly, tackle food waste and increase the natural area in municipalities. In total, the Board of Public Administration (Raad voor Openbaar Bestuur (ROB)[3] noted that the intensified tasks in the accord would require about 14-17 extra fte per municipality. Note that, if accounting for municipality size, which means about 86-100 for G4-municipalities, 39-43 for G40, 17-19 for average sized municipalities and 8-9 for smaller ones. On top of this, municipalities cope with additional material costs, mainly for research, according to the ROB.[4] This poses challenges, in terms of capacity and financial means of municipalities, in ensuring that their responsibilities regarding the climate accord are upheld.

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[3] Felix, A. E. (2020). Uitvoeringskosten van het Klimaatakkoord voor decentrale overheden in 2022-2030. GR142/eindrapport (Dutch).
[4] Ibid.

1.5 Sustainable development

Sustainable development of municipalities used to be measured using the Het PON & Telos-method, based on the in 1987 published report 'Our Common Future' by the Brundtland Commission and the World Commission on Environment and Development. In that report, sustainable development is defined as follows: *'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'* Het PON & Telos adopted that approach, and distinguished three requirements that needed to be met:

* There must be simultaneous improvement in the economic, ecological and socio-cultural capitals. Improvement of one capital must not occur at the expense of one or both other capitals.
* The development must be capable of being maintained for future generations: problems must not be passed on to the future.
* The development must also be capable of being maintained at a global level, in other words: there must be no passing on of problems to other areas. Our development must not occur at the expense of those in other regions or other countries.

By adopting this integral approach, Het PON & Telos explicitly chose to take a broad perspective on sustainable development. The concept has both a strategic dimension (the longer term), and a normative dimension (responsibility for various tiers of government, geographical scales and future generations).

1.6 Sustainable Development Goals

As of today, there are several ways to measure and define sustainable development. One that has been gathering international attention and is being used by a variety of institutions, is the Sustainable Development Goals SDGs. The SDGs are based on decades of work by countries and the United Nations (UN) and prominently became part of the sustainability agenda in 2030. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call to action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go together with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The SDGs were also adopted by the Association for Dutch Municipalities (Vereniging voor Nederlandse Gemeenten (VNG), who are actively urging Dutch Municipalities (in their Gemeenten4GlobalGoals campaign) to adopt the SDGs in their local agenda's, believing that "local governments are key agents in the new development agenda. Especially Goal 11 […] occupies a central position within the everyday practices of municipalities. However, all

of the goals are – to a certain extent- local goals, which means that local governments can contribute to each and every one of them."[5]

It is in this light that BNG Bank asked Het PON & Telos to develop a method for measuring the sustainable development of Dutch municipalities along the SDGs.

1.7   About BNG ESG bond issuance

With its excellent credit ratings (Moody's: Aaa; FitchRatings: AAA; S&P Global: AAA), BNG Bank has been a well-known issuer in the international capital markets for a long time. Increasing awareness and engagement in the field of ESG has led the global financial sector to develop ESG-labelled bond frameworks. In this light, BNG Bank has been an active issuer of ESG bonds (formerly known as SRI bonds) since 2014.

In 2014, BNG Bank developed an ESG issuance framework in cooperation with Het PON & Telos. Under this framework, the most sustainable municipalities and social housing associations were selected. The loans provided to these "best-in-class" performing core clients were consecutively funded with proceeds from the ESG bonds which the bank issued. This framework was successfully deployed until 2020. The launch of the UN SDGs, as well as the launch of BNG's Road to Impact strategy, provided a logical backdrop to modernise the framework in 2021. As a result, the BNG Sustainable Finance Framework was launched in that year. It is under this ESG framework that BNG Bank has issued ESG bonds for Dutch municipalities and social housing associations since 2021.

BNG Bank Sustainable Finance Framework

The Sustainable Finance Framework follows the four key pillars of the ICMA Green Bond Principles (GBP) and Social Bond Principles (SBP), and of the LMA Green Loan Principles (GLP): Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds and Reporting. Given this structure, the framework is divided in two sub-frameworks that each focus on a different client group in terms of use of proceeds:
- Sub-framework I for loans to Dutch municipalities
- Sub-framework II for loans to Dutch social housing associations

Each transaction BNG Bank initiates will include eligible proceeds from only one sub-framework to avoid mixed use of proceeds in one financial instrument.

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[5] VNG. (n.d.). Sustainable development goals. Retrieved October 26, 2022, from https://www.vng-international.nl/sustainable-development-goals

Financing Dutch municipalities

BNG Bank is market leader in financing the Dutch municipal sector. The budget of this sector is drawn up using 53 OECD Classification of Functions of Government ("COFOG") tasks to display the municipal expense categories. The tasks classify government expenditure data using the purpose for which the funds are used.

The methodology of the municipality sub-framework maps the municipalities' COFOG expenditures to ICMA GBP and SBP categories (sustainable bond) and to the UN SDGs. The approach allows for the distinction between the portion of expenditures that is mapped to the SDGs and the portion that is not. The proceeds of the BNG sustainable bond for municipalities will be used to fund the SDG expenditures of the Dutch municipalities.

Sustainable bonds issued under BNG Bank Sustainable Finance Framework

2022 was the second year the BNG Bank issued Sustainable Bonds under the new framework. Table 1 provides an overview of the sustainable bonds issued for Dutch municipalities under the Sustainable Finance Framework.

Table 1   Sustainable bonds issued for Dutch Municipalities

2021	Coupon	Maturity date	ISIN
EUR 2 bn	0.125	04/19/33	XS2332592760

2022	Coupon	Maturity date	ISIN
EUR 2 bn	0.25	01/12/32	XS2430965538
EUR 180 mn	0.125	04/19/33	XS2332592760

1.8   Set-up of this report

In the next chapters, the outcome of the study is presented. In chapter 2 we will take an in-depth look at the COFOG-analysis outcomes. The results of the Use of Proceeds categories analysis are presented in chapter 3. In chapter 4 we will take an in-depth look at the SDGs and their goals, targets and indicators. In chapter 5 we will discuss the operationalization. The results of the SDG analysis as well as some examples of indicators are presented in chapter 6. Finally, a conclusion is presented in the final chapter.
The report includes three annexes as well; Annex A provides references and sources, Annex B shows information on the SDG-indicators, while Annex C does the same for the indicators that are used for the Use of Proceeds categories.

2   COFOG

Not all SDGs are equally applicable to municipalities, while a few are not applicable at all. To match the Sustainable Development Goals to the framework with which BNG Bank finances the total Dutch municipal budget, the 53 municipal tasks as identified by OECD Classification of Functions of Government (COFOG) were linked to the 17 SDGs. Following that, all COFOG tasks that are SDG-linked where categorized by using the Green Bond Principles (GBP) and the Social Bond Principles (SBP). Lastly, each COFOG code is identified with the main SDG. This resulted in a measurable table of core municipal tasks and their accompanying SDGs (see chapter 3).

In 2019-2020 Het PON & Telos performed a base line study which performs as a standard that presented an overview of the municipal spending related the method described above. In this report an update of the most recent available budget year (2023) is presented. The results are shown in table 2.

Table 2   Summary overview of the share of eligible activities in municipal budgets 2017 – 2023

Year	Percentage SDG-related municipal spending	SDG-related municipal spending in bn €
2017	66.4	€ 37.8
2018	66.5	€ 38.5
2019	67.3	€ 40.5
2020	67.5	€ 42.4
2021	68.2	€ 44.0
2022	68.4	€ 45.2
2023	67.2	€ 47.6

The links between Use of Proceeds categories, COFOG task fields and SDGs are unambiguous, recognizable for third parties, practically manageable and easy to use with regard to municipal budget figures. The calculations and analyses that were performed show stable, explainable results that develop steadily over time.

In absolute terms, an increase in SDG-related spending is observed, but total budgets are increasing even more rapidly. Hence, in comparison, the proportion of SDG-related expenditures is slightly lower than the year before (67,2% vs 68,4%) as shown in table 2.

As mentioned previously, a methodology to identify all SDG-linked expenditures was used to categorize the expenditures using the ICMA Green Bond Principles (GBPs) and Social Bond Principles (SBPs) Use of Proceeds categories. Municipalities increased their SDG-related budget with 5,3%, compared to 2022. Most of the budget is allocated to the Use of Proceeds Categories 'Access to essential services' and 'Socioeconomic advancement'. Which combined, encompass 71,4% of the total budget. The distribution of budget reflects the municipality's core responsibilities. In Table 3 and Figure 3 below, the composition of the eligible activities by use of proceeds categories and the breakdown of the use of proceeds categories can be found.

Use of proceeds categories (in bn €)	2017	2018	2019	2020	2021	2022	2023
Access to essential services	9.7	9.8	10.7	11.5	12.2	12.3	13.1
Socioeconomic advancement	17.0	17.6	18.3	18.9	19.3	20.0	20.9
Employment generation	3.9	3.8	3.8	3.8	3.9	4.0	4.0
Affordable basic infrastructure	0.5	0.3	0.3	0.3	0.3	0.2	0.2
Green buildings	2.0	2.1	2.3	2.4	2.5	2.7	2.9
Environmentally sustainable management of living natural resources and land use	1.8	1.8	2.0	2.2	2.3	2.5	2.8
Pollution prevention and control	1.6	1.6	1.7	1.9	2.0	2.0	2.2
Sustainable water and wastewater management	1.3	1.3	1.4	1.4	1.4	1.4	1.5
Total SDG-related	**37.8**	**38.5**	**40.5**	**42.4**	**44.0**	**45.2**	**47.6**

Figure 3 Composition of the eligible activities by UoP Category

Old	New
- 6.71 Customised services 18+	6.71a Household Assistance (WMO)
	6.71b Guidance (WMO)
	6.71c Day Care (WMO)
	6.71d Other Customized Arrangements (WMO)
- 6.72 Customised services 18-	6.72a Youth Support Guidance
	6.72b Youth Treatment Support
	6.72c Youth Day Care Support
	6.72d Other Non-Residential Youth Support
	6.73a Foster Care
	6.73b Family-Oriented Support
	6.73c Other Residential Youth Support
	6.74a Youth Mental Health Treatment without Residence
	6.74b Youth Crisis/LTA/Mental Health Residence
	6.74c Closed Placement
- 6.81 Escalated care 18+	6.81a Sheltered Housing (WMO)
	6.81b Social and Women's Shelter (WMO)
- 6.82 Escalated care 18-	6.82a Youth Protection
	6.82b Youth Probation

Changes in source data COFOG

Starting from the reporting year 2023, the Iv3 functional fields in the social domain related to individual provisions in the areas of WMO (Social Support Act) and Youth have been divided to provide users with more information and comparative material. Please refer to table 4 seen below, titled 'Refinement of functional fields for Youth and WMO in the social domain', for further details.

In addition to the refinement described above for the functional fields of WMO (Social Support Act) and Youth, several minor adjustments have been made to the remaining functional fields within the social domain, starting from the reporting year 2023. The most significant adjustment is the relocation of debt counselling from 6.3 to 6.71. Furthermore, in 2024, a name change will occur: 6.2 Neighbourhood Teams will be changed to 6.2 Access and Primary Care Services, with the addition of several new functional fields:

- Youth Primary Care Practitioner (POH Jeugd)
- Strategy Safe Home, addressing domestic violence and child abuse
- Customized Youth Act services commissioned by the municipality and carried out by a youth healthcare provider
- All activities in the preventive judicial framework carried out by the neighbourhood team.

3 Use of Proceeds

In this chapter, an examination of the results of the sustainability score of the Use of Proceeds categories will be discussed. The results will be presented for each of the eight categories that are discerned in the Framework for the BNG Bank Sustainability Bond, see table 5 below.

Table 5   Municipal COFOG tasks and their accompanying SDG based on a framework by the BNG Bank

SBP or GBP UoP category	Eligible COFOG tasks	SDG alignment
Access to essential services	• 1.1 Crisis management and fire brigade • 1.2 Public order and safety • 4.1 Public primary education • 4.2 Educational housing • 4.3 Education policy and student affairs • 5.2 Sports accommodations • 5.4 Museums • 5.5 Cultural heritage • 6.72 Customized services 18- • 7.1 Public health • 8.1 Spatial planning	
Socioeconomic advancement	• 0.2 Civil affairs • 6.1 Cooperation and citizen participation • 6.2 Neighborhood teams • 6.3 Income plans • 6.6 Customized facilities (WMO) • 6.71 Customized services 18+ • 6.81 Escalated care 18+ • 6.82 Escalated care 18-	
Employment generation	• 3.1 Economic development • 3.3 Business counter and business schemes • 3.4 Economic promotion • 6.4 Guided participation • 6.5 Labor participation	
Affordable basic infrastructure	• 2.5 Public transport	
Green buildings	• 0.3 Management of other buildings and grounds • 3.2 Physical business infrastructure • 8.3 Living and building	
Environmentally sustainable management of living natural resources and land use	• 5.7 Public green areas and (outdoor) recreation • 7.4 Environmental management	
Pollution prevention and control	• 7.3 Waste	
Sustainable water and wastewater management	• 7.2 Sewerage	

3.1 General performance of municipalities applying Use of Proceeds categories

Table 6 presents a summary of the results of the Use of Proceeds category scores from 2016-2023. The general trend, up until 2021, shows small improvements of the overall scores. As of 2021-2022, small decreases are noticeable, ranging from 0,33 to 2,95 percent points. In the scores of 2022-2023, some further decreases are visible, ranging between 0,02 and 2,89 percent points. Remarkably, is that the category 'employment generation' had the highest decrease last year, and has increased by 4 percent points this year, whereas 'sustainable water and wastewater management' shows a reversed trend. An increase by 3,30 percentage points last year and a decrease of 2,89 this year. We will have an in-depth look at the categories in the following paragraph. 'Green buildings' and 'Environmentally sustainable management of living natural resources and land use' have lagged in scores, with no real developments over the past 8 years. 'Socioeconomic advancement', 'Employment generation' and 'Affordable basic infrastructure' have improved the most over the past 8 years.

Table 6   Sustainability performance applying Use of proceeds categories

Use of Proceeds category	2016	2017	2018	2019	2020	2021	2022	2023
Access to essential services	46.0	46.5	46.7	47.4	47.6	48.6	48.2	48.5
Socioeconomic advancement	40.3	40.5	41.2	43.0	46.0	45.8	47.9	49.5
Employment generation	41.3	43.2	45.4	49.3	53.6	56.0	53.1	57.2
Affordable basic infrastructure	42.7	43.2	44.1	44.9	47.0	49.4	50.6	50.4
Green buildings	31.1	31.1	31.1	31.3	31.4	31.6	31.6	31.6
Environmentally sustainable management of living natural resources and land use	44.3	45.7	45.1	44.9	44.3	46.4	46.5	45.6
Pollution prevention and control	54.3	54.8	55.7	55.3	56.5	58.8	58.4	58.4
Sustainable water and wastewater management	30.6	30.8	31.4	33.1	33.0	34.7	38.0	35.1

Annex C provides an overview of the indicators used for the Use of Proceeds.

3.2 In-depth look Use of Proceeds categories

This paragraph provides a detailed description of the Use of Proceeds categories and contains explanatory data at the indicator level to interpret relevant trends.

3.2.1 Access to essential services

Access to essential services shows an overall small increase in the past years, with some small fluctuation in the scores over the latest few years. The general upward trend is mainly due to more inhabitants having sufficient physical activity, as well as an increase in inhabitants' valuation of their health. Furthermore, the educational level of Dutch inhabitants has experienced growth, with more individuals completing degrees after secondary school. Other indicators of access to essential services have stayed relatively stable or have slightly developed negatively. The costs for basic or specialized mental healthcare[6] for instance, has increased from about €175,- euro per inhabitant to €200 euro per inhabitant. The average life expectancy in Dutch municipalities is stable at around 82 years.

3.2.2 Socioeconomic advancement

This category has seen one of the largest improvements over the past years, increasing with about 9 percentage points. The average disposable income of Dutch inhabitants increased over the past years. However, the average percentage of poor households[7] in municipalities has slightly increased, from 4,2%, to 4,5%. The Gini-coefficient[8] of disposable income in the municipalities in the Netherlands has increased to about 0,29, along with the increase in the Gini-coefficient of primary income (Gini-coefficient of 0,54). This figure means that inequality is rather large, but is somewhat mitigated by social benefits.[9] In terms of gender inequality, data shows that the average labour participation of women is 68,1% to date and has been increasing incrementally over recent years (62,5% in 2016). Still, the difference in labour participation is over 8 percentage points, with men's labour participation being 76,3%. This inequality is partly induced by women doing most of the 'second shift'.[10] Looking at some of the safety related indicators, we see the number of violent crimes steadily decreasing, as well as the amount of property crimes.

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[6] Indicator also part of the ICMA socials bonds framework
[7] Poor households are households with an income up until 105% of the social minimum. The social minimum differs per age and household situation. For single households, over 21 years of age, the minimum is €1.378,95 per month
[8] Indicator also part of ICMA socials bonds framework
[9] https://www.cbs.nl/nl-nl/longread/diversen/2021/inkomens-verdeeld-40-jaar-in-vogelvlucht/3-inkomensongelijkheid
[10] https://www.cbs.nl/nl-nl/visualisaties/dashboard-arbeidsmarkt/werkenden/arbeidsparticipatie-naar-leeftijd-en-geslacht#:~:text=Van%20de%20mannen%20werkt%20een,en%20vrouwen%20varieert%20per%20leeftijdsgroep.

3.2.3 Employment generation

The employment generation category has witnessed a notable surge, with an overall increase exceeding 15 percentage points. Looking at the indicators, we see a steady increase of the Gross National Product, along a steady decrease in unemployment[11], which had dropped from 6,4% in 2016 to 4,4% in 2019 and is 3,5% in the most recent measured data. Youth unemployment[12] decreased since 2016, from 12,1% to 8,5% in 2019, followed by an increase to 10,6% in 2020 and is 7,6% in the most recent measured data. That pattern might, at least somewhat, be due to COVID-19.

3.2.4 Affordable basic infrastructure

As with socioeconomic advancement and employment generation, affordable basic infrastructure has steadily increased over the past years. Part of the steady increase is the increase in the usage of fossil free cars[13], both private and commercial. The amount of fossil free privately owned cars went from 2,3% in 2019, to 4,4% in the most recent measured year. COVID-19 temporarily decreased the severity of congestions in Dutch municipalities, but have since returned to pre-pandemic levels. Inhabitants spent 1.332 minutes in congestion in 2019, followed by 413 and 566 minutes in 2020 and 2021 respectively. Currently, they are experiencing an average of 1.301 minutes in congestion. Furthermore, the accessibility of public transportation[14] shows a somewhat negative trend, mainly due to the increasing average distance to the nearest bus stop. Whereas that was about 1845 meters in 2019, it is almost 2500 meters to date. An indication of a decreasing number of bus stops in (especially rural[15]) municipalities, about which members of the national parliament raised questions.[16] The accessibility of train stations on the other hand, is relatively stable, with no real difference in recent years. On average, inhabitants have to travel 5km to reach the nearest train station. The previously mentioned increase in both solar and wind energy also explains the increasing score on affordable basic infrastructure.

3.2.5 Green buildings

There have been no significant changes in the green buildings category. Currently, only 1,27% of roofs are considered 'green,' compared to 1,16% in 2016. Municipalities are actively promoting green roofs due to their potential to enhance the liveability and healthiness of cities.

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[11] Indicator also part of ICMA socials bonds framework
[12] Indicator also part of ICMA green bonds framework
[13] Indicator also part of ICMA green bonds framework
[14] Indicator also part of ICMA social bonds framework
[15] https://nos.nl/collectie/13923/artikel/2465241-ruim-1500-bushaltes-minder-dan-in-2018-impact-verschilt-lokaal-sterk
[16] https://www.openkamer.org/kamervraag/2023Z03569/

3.2.6 Environmentally sustainable management of living natural resources and land use

The score of this category has fluctuated over the past years, with no real increase. This is mainly due to the lower scores on biodiversity and nitrogen deposition across municipalities in the Netherlands. Although there is an average of 27,02% of protected natural area[17] spread across municipalities in the Netherlands, nature is coping with, amongst other things, eutrophication and drought. These factors are reflected in the score on this category.

3.2.7 Pollution prevention and control

Municipalities in the Netherlands are making some progress in the separation of household waste.[18] On average, 68,91% of household waste is currently being separated, compared to 62,5% in 2016. However, the overall quantity of waste remains relatively high. Each resident generates an average of 543 kg of household waste[19], which is nearly 20 kg more than in 2016 when the average was 529 kg. Additionally, there has been a slight reduction in the concentration of nitrogen oxides (NOx) in recent years, primarily attributed to a decrease in traffic-related exhaust emissions and industrial pollution. A somewhat similar trend is visible in the concentration of particulate matter[20,21]; a slight increase in 2021 (from 8,5 in 2020 to 9 $\mu g/m^3$) after which a slight decrease seems to be taking effect, with the average concentration being 8,96 $\mu g/m^3$ in the most recent measured year. It is worth noting that this improvement may have been influenced by reduced traffic volumes during the COVID-19 pandemic.

3.2.8 Sustainable water and wastewater management

Following green buildings, the lowest performing category among Dutch municipalities. Primarily due to the poor quality of surface water in the Netherlands. Merely 1%[22] of Dutch surface water bodies meet the European Standards set by the Water Framework Directive. This directive evaluates both the ecological and chemical conditions of designated surface water bodies. Particularly concerning is the presence of chemicals, the compliance rate of which is exceptionally low. Only 0,4% of the designated surface water bodies meet the required standards.

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[17] Indicator also part of ICMA green bonds framework and the framework drawn up by the DNB
[18] Indicator also part of ICMA social bonds framework
[19] Indicator also part of ICMA green / social bonds framework
[20] Indicator also part of the ICMA social bonds framework
[21] The particulate matter referred to has a particle size of 2.5 μm
[22] https://www.wur.nl/nl/show-longread/een-dikke-onvoldoende-voor-waterkwaliteit.htm

4 Sustainable Development Goals

4.1 About the SDGs

The SDGs have a rich history. Starting in June 1992, 178 countries adapted the so-called Agenda 21, consisting of a comprehensive plan of action to build a global partnership for sustainable development. In the same year, The Commission on Sustainable Development (CSD) was created to ensure effective follow-up of the United Nations Conference on Environment and Development (UNCED), to monitor and report on implementation of the agreements at the local, national, regional and international levels. Marking the millennium, Member States adopted the Millennium Development Goals, consisting of 8 specific goals to reduce poverty. Some years later, after reaffirming the countries' commitment to poverty eradication and environmental protection, Member States decided on the development of a global set of sustainable goals in 2012. The first presentation and adaptation of the 17 SDGs found place in 2015.

Today, the Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provide substantive support and capacity-building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology. In order to make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals. Below, we will briefly discuss each goal.

Figure 4 SDG overview

4.2   Goals, targets and indicators

1. No Poverty

SDG 1 is aimed at reducing poverty in all its forms. Meaning poverty in financial terms, as well as the impact of poverty on human lives. In 2020, about 6,8% of the Dutch households had an income below the low-income threshold. The Netherlands Bureau for Economic Policy Analysis (CPB) calculated that in 2021 and 2022, that percentage has neither increased nor decreased.[23] Additionally, the number of homeless people is rising at an alarming rate.[24] There is especially a large increase among homeless youngsters. The Netherlands might, generally speaking, be a prosperous country, not all sections of the society benefit for that prosperity equally.

The indicators used to measure this are:
- Poor households
- Disposable income
- Government assistance
- Long term debts
- A minimum household capital of € 5000,-
- Defaulters
- (Judicial) administration
- Financial struggle
- Children in poverty

2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Undernourishment in the Netherlands is most prominent among the elderly. In a 2014 report, Kok and Scholte estimated that one in 5 elderly living in nursing homes is undernourished.[25] As a country with a very high cattle density and intensive agricultural practices, the Netherlands have a large task at hand towards sustainable forms of agriculture. The National Review on the Sustainable Development Goals shows that circular agriculture is closely linked to the restoration of nature and biodiversity (SDGs 14 and 15) and ensuring a health food system for all (SDGs 2, 3 and 12). Although the Netherlands generally scores well on this goal, organic production is still small compared to other European countries. The main

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[23] CPB (2021). Raming aantal personen/ huishoudens onder de lageinkomensgrens in 2021 en 2022. CPB Raming. Den Haag.
[24] https://www.rijksoverheid.nl/documenten/kamerstukken/2023/01/19/antwoorden-op-kamervragen-over-de-schrikbarende-stijging-van-het-aantal-daklozen-met-name-onder-jongeren
[25] Kok, L., & Scholte, R. (2014). Ondervoeding onderschat: De kosten van ondervoeding en het rendement van medische voeding. SEO-rapport, (2014-11).

challenge is nitrogen deposition in the environment, directly leading to a poor score on SDG 15.[26]

The two indicators used to measure this are:
- Distance to daily groceries and provisions
- Organic farming
- Unhealthy food suppliers

3. Good health and well-being

Compared to other countries, the Dutch healthcare is well-organised. The overall perceived health of Dutch inhabitants above 18 is quite high (roughly 60% perceives health as 'good'). Looking at SDG 3 from a wider perspective, the National review notes that there are three challenges the Netherlands is facing. Firstly, there is relatively large health inequality between people with high and low socioeconomic status. The healthy life expectancy of someone with a high socioeconomic status compared to someone with low socioeconomic status is about 15 years. Secondly, the increase in mental health problems; roughly 63% of the Dutch youths is feeling psychologically unwell. [27] Lastly, health and well-being challenges are posed by new forms of diseases due to climate change or zoonosis. The Netherlands is also coping with challenges around suitable and affordable housing.

The indicators used to measure this are:
- Life expectancy
- People with chronic illnesses
- Perceived health
- Suicides
- Mental healthcare costs
- Hospital quality
- Severe loneliness
- Exercise-friendly environment
- Overweight
- Youth care
- Substance use
- Drug use
- Insufficient exercise

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[26] Rijksoverheid. 2022. Voluntary National Review on the Sustainable Development Goals. Ministerie van Buitenlandse zaken. Den Haag.
[27] https://www.rivm.nl/gezondheidsonderzoek-covid-19/kwartaalonderzoek-jongeren/mentale-gezondheid#:~:text=Veel%20jongeren%20ervaren%20mentale%20klachten,klachten%20te%20ervaren%20(37%25).

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

Sufficient education is important for people of all ages, in all stages of life. Ranging from primary education to lifelong learning programs. Education ensures that people have the proper skills to functions in knowledge intensive society.[28] In the Netherlands, the overall satisfaction of primary and secondary school is high and the number of students who leave school has been declining over the past years (from 8,5% in 2013 to 7,2% in 2022). However, we might do well on lifelong learning internationally, but not all inhabitants of the Netherlands can benefit from the possibilities. Some parts of society are left behind.[29]

The indicators used to measure this are:
- Satisfaction with elementary school
- Satisfaction with secondary education
- Early school leavers
- Diploma without delay
- Distance to secondary school
- Distance to vocational school

5. Achieve gender equality and empower all women and girls

Although the Netherlands scores well on some aspects of equality, there is still room for improvement on achieving equality for women and girls. A notable difference in favour of men is still observed in economic independence, as well as a difference in salary for the same jobs. We also see a noticeable difference in representation in public administration. A study showed that of the newly appointed local councillors in municipalities in 2022, only about one third were women.[30]

The indicators used to measure this are:
- Gender inequality in healthcare costs
- Gender inequality in life expectancy
- Gender inequality in self-reliance
- Gender inequality in income
- Gender inequality in medicine use
- Gender inequality in violent crimes
- Gender inequality in property crimes
- Gender inequality among council members

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[28] SDG Nederland. (2022). DE 17 SDGs. SDG Nederland. Retrieved October 26, 2022, from https://www.sdgnederland.nl/de-17-sdgs/
[29] Rijksoverheid. 2022. Voluntary National Review on the Sustainable Development Goals. Ministerie van Buitenlandse zaken. Den Haag.
[30] https://www.raadsleden.nl/actueel/nieuws/krap-derde-geinstalleerde-raadsleden-is-vrouw

- Gender inequality among mayors / aldermen
- Gender inequality in labour participation

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

The Netherlands has a longstanding history as a water-rich country, benefiting from abundant drinking water derived from both ground and surface water sources. The quality and accessibility of water have been well-maintained, and drinking water used to be naturally available. However, due to historical processes and the effects of climate change, the clear accessibility to abundant drinking water is now being endangered.

Unfortunately, at present, there is insufficient subnational data available to accurately measure the impact of this goal, resulting in the absence of impact measurement in the overall analyses.

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

To reduce the dependence on fossil fuels, innovation and usage of new technologies regarding sustainable energy is an important step. The geopolitical tensions and war in Ukraine have made the need for action even more urgent. We have seen a steady increase in the amount of renewable energy, but affordability is becoming a concern. Many households are currently coping with high energy bills and energy poverty is increasing.

The indicators used to measure this are:
- High energy quote
- High energy burden
- Gas consumption households
- Electricity consumption households
- Gas consumption industry
- Electricity consumption industry
- Wind energy
- Solar energy
- Renewable energy
- Energy label index homes
- Energy label index utility buildings
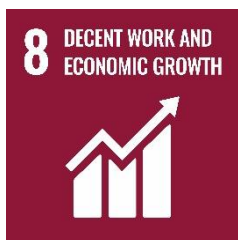
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Economic growth is only sustainable when accounting for the sustainable and responsible use of materials, capital and employment and when profit and income is equally divided between employees and companies. Income and wealth inequality have increased in recent years, and the COVID-19 pandemic has exacerbated these issues.[31]

The indicators used to measure this are:
- Unemployment rate
- Labour force potential
- Demographic pressure
- Employment opportunities
- Retail vacancy
- Office vacancy
- Deprecated business parks
- Potential business parks
- Gross regional product

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

The physical infrastructure in the Netherlands is highly developed. Mobility and infrastructure enable people to move around, for example to and from work to transport goods, keep in touch with each other and pursue activities in their leisure time. However, a highly developed infrastructure also has detrimental effects on society and the environment: people get stuck in traffic jams, road safety decreases and pressure on the environment increases. The Netherlands is not doing well on sustainable infrastructure and transport. Especially the pressure on the environment and congestion are high, while the transition towards electric transport relatively slow (roughly 2% in 7 years). The outbreak of the coronavirus and the subsequent measures had a major impact on mobility in 2020 and 2021. The pandemic decreased some of the transport-related emissions, but recent data shows that we are almost back to pre-pandemic levels.

The indicators used to measure this are:
- Charging stations
- Perceived bicycle environment
- Distance to public transport (bus, tram, metro)
- Distance to train station
- Distance to main road
- Privately owned electric vehicles

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[31] https://www.uu.nl/in-de-media/door-de-coronacrisis-wordt-de-kloof-tussen-arm-en-rijk-weer-groter

- Fossil free business vehicles
- Traffic jams
- Accessibility business parks
- Employment opportunities in high and medium tech sector
- Starting companies
- Fiber optics connection

10. Reduce inequality within and among countries

This goal is aimed at inequality between countries but is also aimed at the social cohesion within countries. A lack of social cohesion is detrimental to the functioning of society. It is important that everyone has equal opportunities to take part in and make use of the social infrastructure.[32] Reducing inequality is also crucial to ensure fair transitions in the challenges the Netherlands are facing. The trust in the (national) government is, however, historically low and in recent years, people have been spending less time with family and friends and doing less voluntary work.[33] And where income inequality is a challenge for the Netherlands, wealth inequality is especially unequally divided.

The indicators used to measure this are:
- GINI index
- Income inequality based on lineage

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[32] SDG Nederland. (2022). DE 17 SDGs. SDG Nederland. Retrieved October 26, 2022, from https://www.sdgnederland.nl/de-17-sdgs/
[33] Rijksoverheid. 2022. Voluntary National Review on the Sustainable Development Goals. Ministerie van Buitenlandse zaken. Den Haag.
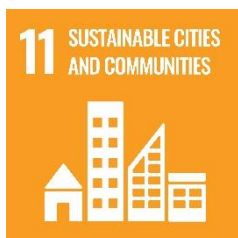
11. Make cities and human settlements inclusive, safe, resilient and sustainable

Affordable housing is one of the aspects on which people choose where to live and a dynamic housing market is important to starters and movers. The Netherlands is however, coping with a shortage in affordable housing. Due to the shortage, houses might be built on places that prove to be unfit for the longer term.[34] Especially starters are unable to find affordable housing[35]. Inclusiveness is a challenge the Netherlands faces throughout the SDGs.

The indicators used to measure this are:
- Satisfaction with local shops
- Satisfaction with home
- Satisfaction with living conditions
- Noise hindrance from neighbours
- Noise hindrance from roads
- Affordable rental housing
- Affordable owned-housing
- Shortages in housing
- Vacant properties
- Participation in association
- Volunteering
- Social relations
- Satisfaction with family life
- Trust in others
- Social cohesion

12. Ensure sustainable consumption and production patterns

Producing and consuming sustainably, whilst accounting for the preciousness of raw materials is key to reduce the pressure on our environment and limit our dependence on those raw materials. The Netherlands aims to be a fully circular economy by 2050, to prevent the depletion of raw materials and energy supply security risks. The Netherlands is doing relatively well on the separation of waste, and the ability to recycle. The amount of waste, however, is still high and has increased over the last year, to 560 kg per inhabitant, of which just over two thirds (69%) is recycled.

The indicators used to measure this are:
- Total amount of waste
- Dangerous waste
- Plastic waste

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[34] Ibid.
[35] https://www.bnnvara.nl/kassa/artikelen/alleenstaande-starter-op-de-woningmarkt-moet-een-jaarsalaris-meenemen-voor-koopwoning

- Paper/cardboard waste
- Compostable waste
- Separation percentage

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

The last few years have been especially ardent in terms of climate change, in which the Netherlands experienced both one of the worst flooding in the last 25 years, as well as the longest period of severe drought in 100 years. Furthermore, the Netherlands are combating severe amounts of nitrogen precipitation which locked the country down, preventing (amongst other things) the completion and development of housing. This goal is aimed at adapting and mitigating the effects of climate changing and ensure a safe and healthy place for humans and nature.

The indicators used to measure this are:
- Surface hardening
- Heat stress
- Water hindrance
- Risk of flooding
- Green roofs
- CO_2 emissions
- Methane emissions
- Particulate matter emissions
- Nitrogen emissions
- Emission of volatile organic substances
- Ammonia emissions
- Particulate matter concentration (PM2.5)
- Nitrogen concentration
- Ozone concentration

14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

In-land water quality is a major challenge for the Netherlands. Currently, only roughly 2% of all the in-land waters complies with EU-standards as legally defined in the Water Framework Directive (WFD). Especially pollution, land degradation and effects of climate change are detrimental to the quality of water ways and the ecosystems they support. Small steps are being made with for instance the river basin project (*'Ruimte voor de Rivier'*),[36] but in order to meet the WFD standards by 2027, the Netherlands still have a long way to go.

The indicators used to measure this are:
- Fish stock
- Macrofauna
- Water flora
- Physio-chemical quality
- Presence of priority substances
- Other toxic substances
- Soil subsidence
- Quality swimming water

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

Aimed at restoring, protecting and sustainably maintaining the life on the land, goal 15 encompasses the restoration of ecosystems and biodiversity to strengthen the resilience of society against demographic pressure, intensified land use and climate change. Land use is a challenging factor for the Netherlands, as the space is scarce, the population is growing and there is need for an increase in the amount of natural area.

The indicators used to measure this are:
- Public trees
- Public green space
- Landscape aesthetic value
- Protected natural area
- Red list species
- Biodiversity

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[36] https://www.rijkswaterstaat.nl/water/waterbeheer/bescherming-tegen-het-water/maatregelen-om-overstromingen-te-voorkomen/ruimte-voor-de-rivieren
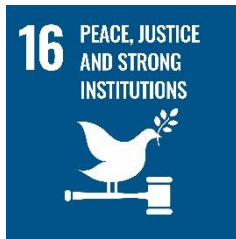
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Trust in institutions, which take responsibility and are transparent are detrimental to a prosperous society. Both feelings of distrust and unsafety can have a major impact on society. On SDG 16, the Netherlands are facing some challenges. There is an historically low trust in politics (39%) and one third of society expresses some feelings of unsafety. [37]

The indicators used to measure this are:
- Violent crimes
- Property crimes
- Sexual offenses
- Vandalism
- Feeling unsafe
- Victims
- Youth criminals
- Child abuse
- Trust in politics
- Trust in institutions
- Politically active residents
- Turnout Municipal Election

17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

The last goal is aimed at the cooperation on international level and ensuring international accountability on the sustainability agenda. Due to the nature of this goal, there is no impact measurement on a local level.

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[37] SCP noted that in their polls on political trust, it hadn't been this low in 50 years. https://www.scp.nl/actueel/nieuws/2022/06/15/stand-van-het-land-verdeeldheid-en-onvrede-maar-ook-hoge-kwaliteit-van-leven

5   Operationalisation

In 2018, Our World in Data published their SDG tracker[38] on the Sustainable Development Goals. The tracker provides a way to track global, regional and national progress across the 17 Goals, 169 Targets, and 232 Indicators of the SDGs. However, data availability dictates some of the measurability of the goals. For some, there is no available data and for others, data is either outdated or incomplete. Data availability is one of the most, if not the most impeding aspects of monitoring impact.

Het PON & Telos carefully selected the indicators to measure the impact along the SDGs but is also hampered by the availability of data. Not everything is measured and not everything that is measured is measured well. Taking that into account, Het PON & Telos comprised a set of indicators to measure the Sustainable Development Goals based on a long tradition of, and experience with sustainable development indicators and expert judgement. The choice of indicators is influenced by three basic principles:

- The indicator must be linked to an SDG financed by the new BNG ESG Bond
- The indicator must be closely linked to the municipal tasks or spheres of influence
- The data used must be of high quality, and from a reliable source

5.1   Sustainable development from an SDG perspective

The Sustainable Development Goals are not a new way of thinking about sustainable development. It builds upon a long tradition of inciting change through sustainable ways, which can be traced back to 1972, at the UN Conference on the Human environment, as mentioned in Chapter 2. What *is* different, is that the SDGs focus on transformation. Achieving the desired outcomes on the required scale[39]. requires intentional change, based on societal agreement and factual understanding.

Although the framework of the SDGs can be traced back to several other objectives agreed upon by the UN, and a tradition of thinking about sustainable development, the SDGs bring a new framework which provides an indivisible and universal whole. A framework with goals and targets and explicit interaction among them. The focus on interaction is highly influenced by our current understanding of the Earth as a closely linked human-environment system.[40] Gains in human wellbeing, both in the past as in the present, almost always come at an expense of the Earth's resources. Ranging from land degradation to the release of waste in the air.

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[38] https://sdg-tracker.org/
[39] Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development, (United Nations, New York, 2019).
[40] Ibid.

The framework also recognizes that our rising (overall) prosperity is not equally distributed. Some people are experiencing high(er) standards of living, whilst others are not even living at our own defined minimum standards. The aggregated environmental costs, however, are born by all. Hence, sustainable development is securing wellbeing for humans in ways that are safe within the boundaries of the Earth's system but is also about being a just development. According to the UN:

"*Ultimately then, sustainable development should be pursued in the spirit of finding pathways that enable a good life for all, leaving no one behind, while safeguarding the environment for future generations and ensuring planetary justice.*" [41]

Based on these principles, Het PON & Telos has developed a framework for housing associations that resembles in essence the framework developed for monitoring the sustainability of municipalities. The SDG-aspects are related to the characteristics of decentral housing property of the associations and their users. To account for the variety of aspects that affect the conditions in and surrounding social housing, the characteristics of decentral housing property have been divided in internal performance (the housing units themselves) and the external performance (the neighbourhood of the housing units).

5.2   Norms used for the indicators and aggregation to the goal score

In order to transform individual indicator scores into a uniform system of sustainability scores, Het PON & Telos has developed an approach using sustainability norms for each indicator by which ranges of sustainability goal achievement are defined (Figure 5). The system specifies minimum and maximum values and three intermediate categories indicated by colour codes (red, orange, green and gold). This classification is shown below. Determining the target values is a part of the method that is intended to generate a lot of discussion. In order to determine these target values, we use legislation, policy documents, comparisons over time, comparisons with other regions and the results of social discussions.

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[41] Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development, (United Nations, New York, 2019).

Figure 5   Flowchart goal achievement and norms
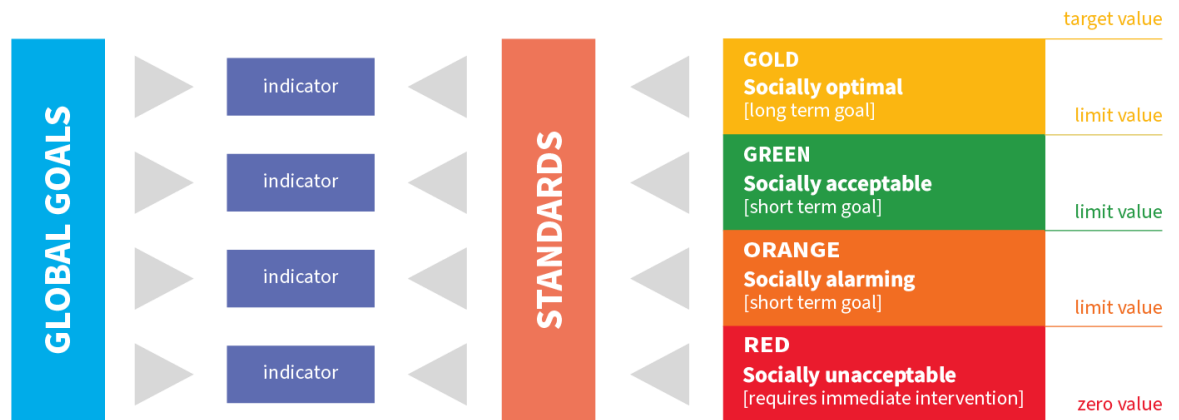
Once goal achievement scores of indicators have been derived, these are aggregated by giving them equal weight to goal scores. Table 7 provides an example.

Table 7   Example of weighting indicators when requirements are of equal importance

SDG	Indicator	weighting in %	angle
SDG X	Indicator 1	50.00	180
	Indicator 1	50.00	180
SDG Y	Indicator 3	33.33	120
	Indicator 4	33.33	120
	Indicator 5	33.33	120

The weighting of indicators can be seen from the vertex of the angle of the sector each occupies in the pie charts. The arc length of the pie chart (Figure 6) sector shows the measured situation. The greater the arc length, the better the score. The dotted line represents the situation at the time of the previous measurement. An outward-facing arrow indicates an improvement, an inward-facing arrow indicates a deterioration. For measuring the current situation, the most recently available data for each indicator has been used. Where possible, we use a trend of T-9 years. The sum of the indicators within a particular goal subsequently determines the score of the goal.

Figure 6 Pie chart example
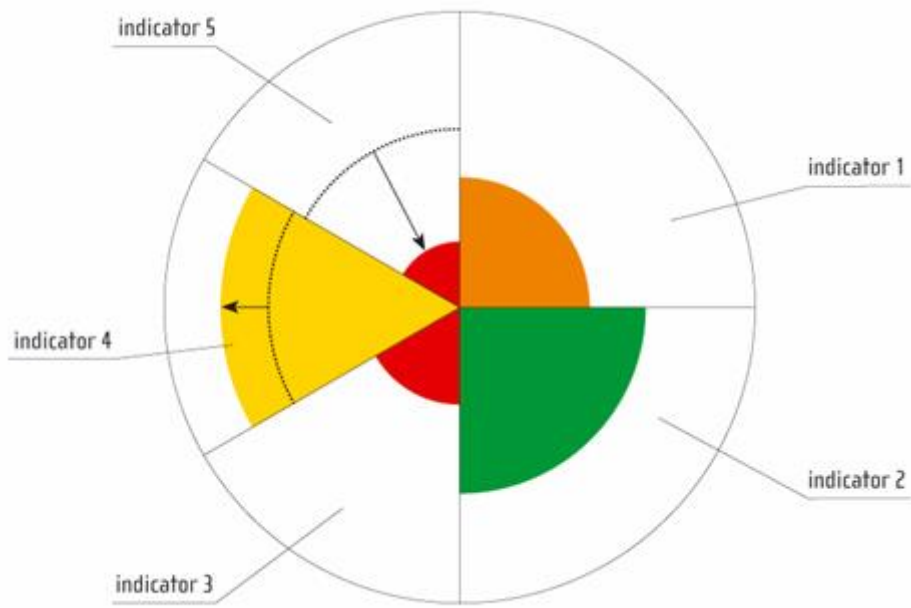
Annex B provides an overview of the indicators used for the SDGs.

5.3 Typologies of municipalities

The framework considers classes for the municipalities in order to avoid one-sidedness in assessing municipalities. Using the classes prevents, for instance, preferring larger municipalities over smaller ones or vice versa. Since municipalities are no longer specifically selected for the bond, the typologies are not used in the analysis of the results.

Table 8   Distribution of municipality sizes in the Netherlands

Municipality size (Number of inhabitants)	Total number of municipalities in the Netherlands
Small: Less than 25,000	72 (21%)
Average: 25,000 - 50,000	182 (53%)
Large: 50,000 - 100,000	58 (17%)
Largest: More than 100,000	32 (9%)

Table 9   Typologies of the municipalities based on characteristics

Characteristic	Typology	Definition
Demographics	Growing municipality	Growth of inhabitants by >5% between 2013-2023
	Shrinking municipality	Decrease in inhabitants by >2% between 2013-2023
Housing stock	New Town	>35% of housing built after 1990
	Historic municipality	Housing stock before 1905 >8% + 1 or more monumental cityscapes
Employment opportunities	Employment municipality	Employment function >100 + number of jobs >14.000
	Living municipality	Employment function <60
Land use	Green municipality	Forest and natural area >30%
	Agricultural municipality	Agricultural ground >75%
Other	Centre municipality	Municipality with more than 15% of the inhabitants of the COROP region & a score of over >50 on services
	Previous industrial municipality	Over 53% of the labour force was employed in an industrial job in 1960
	Touristic municipality	Over 10% of the companies is aimed at tourism or over 14% of the labour force is working in the tourism industry

6 Results SDGs

In this chapter, we will first give an overview of the SDG scores of the most recent year, as presented in Figure 7. Following, in figure 8, the SDG scores over time are shown. We will briefly discuss the developments over time, after which we will have a more in depth look at the SDG 1, 4, 7, 10 and 11. Although the SDGs have many interconnections and achieving one goal often relies on achieving others, BNG Bank specifically focuses on the aforementioned SDGs because they closely align with the activities financed by the bank.[42]

We will discuss the developments of SDG 1, 4, 7, 10 and 11 and we will highlight some indicators that are part of the overall score on the SDGs. The presented indicators will closely overlap or match the indicators mentioned in (inter)nationally developed frameworks by the ICMA and DNB.

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[42] https://www.bngbank.com/Sustainability.

6.1 Overall score on the SDGs

In the figure below, results of the 2023 framework can be found. The SDGs are scaled from 0 to 100, higher values represent better performance, lower values represent worse performance.

Figure 7 Overall score SDGs

Figure 7 illustrates that there have been notable advancements in the Sustainable Development Goals (SDGs) since 2016. Particularly noteworthy is the significant improvement observed in SDGs 1, 7 and 16. Furthermore, SDGs 5, 8, and 9 have also experienced slight improvements compared to their scores in 2016. The remaining SDGs have generally remained relatively stable, with some exhibiting slight improvements or decreases. Figure 8, located on the subsequent page, provides a comprehensive overview of the score developments over time.

6.2   SDGs over time

Figure 8 Development in time of the SDG scores
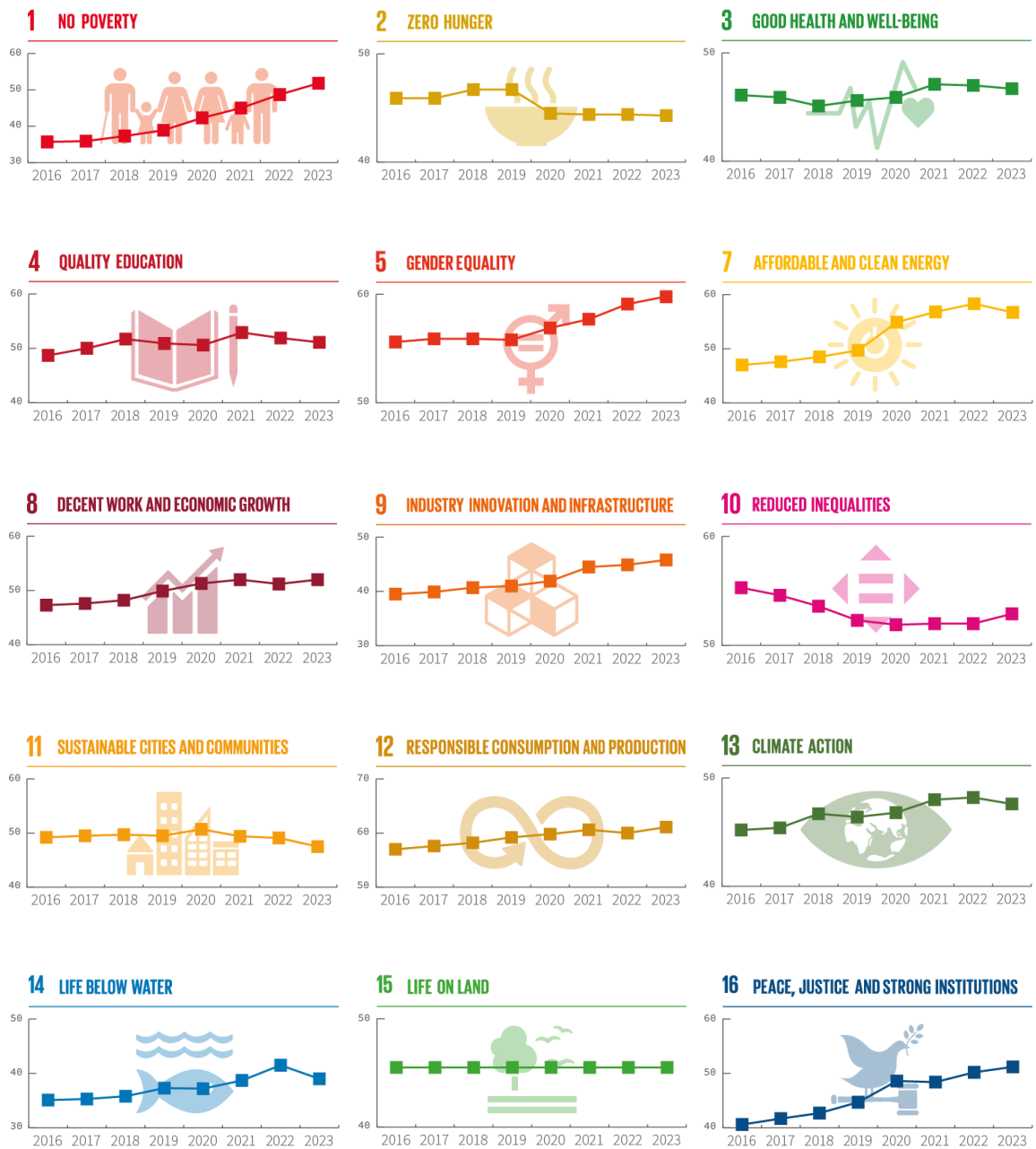
Looking at the development of the scores over time, most of the SDGs have had a positive development since 2016. Two of them have seen a significant increase (SDG 1 and SDG 16). The timeline also shows that most of the development took place in the latter years (since 2018). Except for SDG 2, 10, 11 and 15, all of the SDGs positively developed over the last 8 years, with the majority of the development in the last 4 years. SDG 15 has been stable and SDG 2, 10 and 11 decreased slightly.

6.3 Results SDGs in depth

BNG Bank focuses specifically on five SDGs which correspond closely to the activities that BNG Bank finances. BNG Bank has developed an engagement plan[43] that will help steer the activities of their clients and support them in their efforts to act on the SDGs.

6.3.1 SDG 3

Over the past few years, we have observed a slight increase in the score for SDG 3. There are several explanations for this marginal increase in the SDG. The percentage of inhabitants who are severely overweight has risen to over 14% in recent years. Another factor contributing to the slight increase is the fluctuation in healthcare costs over the past few years, with an overall increase to an average of just over €2.510 per inhabitant.[44] While the costs have stabilized somewhat after the COVID-19 pandemic, they are expected to continue rising until at least 2060, according to the Ministry of Health, Welfare, and Sport.[45] On the other hand, we have seen an increase in inhabitants' valuation of their health and a decrease in the number of inhabitants who engage in insufficient physical activity.

6.3.2 SDG 4

The score for SDG 4 has shown a consistent increase over time. The educational level of Dutch inhabitants has experienced significant growth, with more individuals completing degrees after secondary school. The number of early dropouts[46] has fluctuated, with a slight increase in the past year, where 1,65% of young adults (between 12 and 23 years old) left school before obtaining a basic qualification.[47] However, the percentage of early dropouts has decreased by over 1% since 2013.

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[43] Reference to *Road to impact* project – under construction
[44] Indicator also part of the ICMA social bonds framework
[45] https://www.rivm.nl/nieuws/zorguitgaven-blijven-tot-2060-stijgen-gemiddeld-met-28-procent-per-jaar
[46] Indicator also part of ICMA and DNB frameworks
[47] A basis qualification is a Senior general secondary education (HAVO), a university education (VWO) or an Intermediate vocational diploma (MBO-2)

6.3.3 SDG 7

SDG 7 has witnessed a steady increase in the past seven years, particularly in the recent years, where the growth in renewable energy[48] has been remarkable. In the most recently measured year, 11,9% of the total energy generated across municipalities in the Netherlands was from renewable sources, compared to 6,3% in 2016. Additionally, the amount of solar energy generated per square kilometre increased from approximately 74 kWh in 2016 to 574 kWh in the most recently measured year. A similar upward trend can be observed in the number of onshore wind turbines. In 2016, the total capacity of wind turbines was 29 MW, while in the most recently measured year, it has reached about 51 MW. However, over 5% of Dutch households still struggle with an energy bill that exceeds 10% of their household income. This percentage would have surpassed the 2019 figure of 8,5% if the Dutch government had not provided compensation for the rising energy costs.

6.3.4 SDG 11
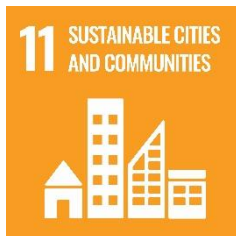
In 2014, over 70% of houses in the municipalities in the Netherlands were considered "affordable." An affordable house is one with a property valuation below €250.000.[49] However, in the most recently measured year, the share of affordable housing has dropped to just over 48%. The increasing property costs are primarily responsible for the decline in the SDG 11 score. Other indicators related to SDG 11 show that self-assessed social cohesion remains relatively stable, with a rating of 6,5. The reported level of social contacts among inhabitants also demonstrates a consistent score in recent years, with over 70% of the population indicating that they have regular or frequent contact with friends, family, and neighbours.

6.3.5 SDG 13

The Netherlands is among the top 10 greenhouse gas emitters in Europe, which contributes to its lower score on SDG 13. Although there has been a slight increase since 2016, it is mainly due to a small decrease in certain emissions. For example, CO_2 emissions[50] have declined from 10.559 kg per inhabitant in 2010 to 8.527 kg per inhabitant in the most recently measured year, making it one of the highest per capita figures in Europe. Similarly, other greenhouse gas emissions, including methane (CH4) and nitrogen (NOx), have also experienced a slight decrease. Methane emissions decreased from 67,5 kg per capita to 62,5 kg per capita, and nitrogen emissions decreased from 21,5 kg per capita to 15.3 kg per capita.

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[48] Indicator also part of ICMA green bonds framework and the framework drawn up by the DNB
[49] Municipalities asses the value of real estate annually, according to the Valuation of Immovable Property Act (*Wet Waardering Onroerende Zaken*, or WOZ).
[50] Indicator also part of ICMA green bonds framework and the framework drawn up by the DNB

7   Conclusion

In the preceding chapters, we have extensively covered the various aspects of the COFOG, Use of Proceeds and Sustainable Development Goals. Additionally, we provided an overview of the background, analysis and theory, outlining the indicators associated with each SDG. Subsequently, we presented the overall scores of municipalities concerning the SDGs, assessed sustainability performance using the Use of Proceeds categories, and analysed COFOG budget allocations related to these categories.

Municipalities increased their total budget with 6,3%, compared to 2022. Most of the budget is allocated to the Use of Proceeds Categories 'Access to essential services' and 'Socioeconomic advancement'. Which combined, encompasses 67,2% of the total budget. The distribution of budget reflects the municipality's core responsibilities.

The Use of Proceeds category scores showed small improvements until 2021, but since then, there have been noticeable decreases. 'Employment generation' had the highest decrease last year but increased this year, while 'sustainable water and wastewater management' showed a reversed trend. 'Green buildings' and 'Environmentally sustainable management of living natural resources and land use' had no significant developments. 'Socioeconomic advancement', 'Employment generation', and 'Affordable basic infrastructure' showed the most improvement over the past 8 years.

Upon examining the SDG scores, a clear image emerges, indicating that there are still significant challenges to be addressed in order to meet the sustainability standards set by the United Nations through the SDGs. Although from an international perspective the Netherlands perform rather well, generally, the total scores of municipalities in the Netherlands remain below 50 out of 100.

Notable observations worth mentioning are:

- Overall perceived health is high, but there are health inequalities based on socioeconomic status.
- Gender equality has made progress, but gaps in economic independence, salary, and representation in public administration remain.
- Renewable energy has increased, but affordability and energy poverty are concerns.
- Affordable housing is in short supply, especially for starters, and building in unsuitable locations is a concern. Inclusiveness is a challenge across SDGs.
- The Netherlands excels in household waste separation and recycling, but waste generation is high and increasing. The country aims to become a fully circular economy.
- The Netherlands faces severe impacts of climate change, such as flooding and drought, and focuses on adaptation and mitigation.
- There is a relatively low trust in politics and feelings of unsafety are still an issue, especially in certain municipalities.

Annex A – References & sources

Sources of data on indicators

Indicator values for the municipalities have been retrieved from several sources, which are listed in Table 10.

Table 10 All sources used to obtain indicator values

Capital	Sources
SDG 2-6-7-12-13-14-15	Centraal Bureau voor de Statistiek, EP-online (RVO), CBS microdata, Emissieregistratie, RIVM, Grootschalige Concentratiekaarten Nederland, Risicokaart, Pointer KRO-NCRV, Klimaatmonitor, SkyGeo en NCG (Nederlands centrum voor geodesie en geo-informatica), EEA, Risicokaart, Bluelabel, Informatiehuis Water, Atlas Natuurlijk Kapitaal, Nationale Databank Flora en Fauna, Klimaateffectatlas, READAR.
SDG 8-9-10	Centraal Bureau voor de Statistiek, CBS microdata, OVapi, Fietsersbond, Rijkswaterstaat, Ecomovement, RVO, IBIS, Kamer van Koophandel, Stratix, LISA, klimaatmonitor.
SDG 1-3-4-5-11-16	Centraal Bureau voor de Statistiek, CBS microdata, Aedes, GGD, WoON, SWAP, RIVM, Elsevier, Zorgverzekeraars Nederland, DUO, Scholenopdekaart.nl, dataportaal van de Politie, scholenopdekaart.nl, Nederlandse Vereniging voor Raadsleden, ABF research Primos, stichting Halt, Raad voor de Kinderbescherming, Databank Verkiezingsuitslagen.

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Annex B – Overview of SDG-indicators

Adjustments in indicator set

Adjustments in the dataset and framework can occur on a yearly basis. Changes in data availability, new scientific insights and changing policies are examples of reasons to reconsider or adjust the framework. Because the datasets should be comparable over the different reporting years, adjustments are reconstructed for the previous years.

Within the dataset used for this report, three different kinds of changes were implemented. Some indicators have been added, some have been deleted from the analysis and some have been changed in definition. An overview of the adjustments is described in the next paragraph.

Changed indicators

- 'Financial struggle' and (Judicial) administration has been added to SDG 1.
- 'Nursing home waiting list ' is removed from to SDG 3.
- 'Gender equality in medicine use' is added to SDG 5.
- 'Income inequality self-employed persons' is removed from to SDG 10.
- 'Affordable rental housing ' is removed from to SDG 11.
- 'Emission NMVOS' and 'Emission sulphur dioxide' are added from to SDG 13, .
- 'Protected natural area' is added to SDG 15.

Table 11 Descriptions of the SDG indicators

SDG	Indicator	Calculation	Unit	Aggregation
SDG 1	Household capital	Households with a capital of €5000,- or more	%	Municipality
	Government assistance	Average number of inhabitants having government assistance as a percentage of the average labour force for the respective year	%	Municipality
	Disposable income	Average disposable income per municipality in €1000,-	1.000 euro	Municipality
	Poor households	Percentage households with an income to 105% of the social minimum over a span of at least 4 years relative to the total number of households	%	Municipality
	Long term debts	Households with a debt of €1000,- or more for at least 3 consecutive years	%	Municipality
	Defaulters	Percentage defaulters of the total inhabitants over 18	%	Municipality
	Children in poverty	Percentage of minors (<18 years old) living in a household below the low-income threshold	%	Municipality
	(Judicial) administration	Percentage of inhabitants on 1st of January with (judicial) administration	%	Municipality
	Income	Average disposable income per municipality in €1000,-	1.000 euro	Municipality
	Financial struggle	Percentage of persons (>18 years old) that self-reported that they are having difficulties making ends meet in the last 12 months	%	Municipality
SDG 2	Biological agriculture	Share of biological agricultural companies relative to total number of agricultural companies	%	Municipality
	Distance to daily groceries and provisions	Distance to a supermarket or other store for daily groceries and provisions	km	Municipality
	Unhealthy food suppliers	Number of unhealthy food suppliers per 1000 inhabitants	Number per 1.000 inhabitants	Municipality
SDG 3	Chronically ill	Percentage of inhabitants with one or more long term illnesses	%	Municipality

	Life expectancy	Average life expectancy at birth	Year	Municipality
	Perceived health	Percentage of population who perceives health as good	%	Municipality
	Suicides	Number of suicides in a district or municipality per 1000 inhabitants	Number per 1000 inhabitants	Municipality
	Mental healthcare costs	Average mental healthcare cost (basic and specialized) per inhabitant	cost per inhabitant	Municipality
	Loneliness	Percentage of population with a high emotional or social loneliness score (adults over 19)	%	Municipality
	Hospital quality	Quality score hospitals	score (0-4)	Hospitals
	Exercise friendly environment	Exercise friendly environment consists of several sub indicators (Number of public sport accommodations, sport - and playfields, sport, play and exercise areas, routes, rural area, distance to recreational facilities) that together make up the score of exercise friendly environment	Score	Municipality
	Youth care	Percentage of youths within youth care	%	Municipality
	Overweight	Percentage of population with severe overweight	%	Municipality
	Drug use	Number of drug addicts per 10.000 inhabitants	Number	MO/VB-district
	Substance use	Average percentage of excessive drinking and smoking	%	Municipality
	Insufficient exercise	Percentage of population that does not comply to the exercise norm	%	Municipality
	Mental healthcare costs	Average mental healthcare cost (basic and specialized) per inhabitant	cost per inhabitant	Municipality
SDG 4	Satisfaction with elementary school	Satisfaction score elementary schools	Score (1-10)	Municipality
	Satisfaction with secondary education	Satisfaction score secondary education	Score (1-10)	Municipality
	Diploma without delay	Percentage of students in secondary education that graduates without delay	Index	Municipality
	Early school leavers	Percentage of students (younger than 23) that	%	Municipality

		leaves school without a basis qualification		
	Education level	Percentage low-skilled	%	Municipality
	Distance to elementary school	Distance to elementary school	km	Municipality
	Distance to secondary school	Distance to secondary school	km	Municipality
	Distance to vocational college	Distance to vocational college	km	Municipality
SDG 5	Gender inequality life expectancy	Average life expectancy at birth	ratio	Municipality
	Gender inequality in violent crimes	The yearly number of violent crimes assaults registered by the police per 1,000 inhabitants for neighbourhoods with 100 or more inhabitants.	ratio	Municipality
	Gender inequality in property crimes	The yearly number of property related crimes registered by the police per 1,000 inhabitants for neighbourhoods with 100 or more inhabitants.	ratio	Municipality
	Gender inequality among councillors	Ratio male - female councillors (male/total-1)	ratio	Municipality
	Gender inequality among mayors / aldermen	Ratio male - female mayors/alderman (male/total -1)	ratio	Municipality
	Gender inequality in labour participation	Ratio labour participation men - women	ratio	Municipality
	Gender inequality in healthcare costs	Ratio healthcare costs total - women	ratio	Municipality
	Gender inequality in medication use	Ratio male - female medication use	ratio	Municipality
	Gender inequality in self-reliance	Ratio total self-reliance - women	ratio	Municipality
	Gender inequality in income	Ratio mean income - women	ratio	Municipality
SDG 7	High energy quote	Percentage of population that spends over 10% of	%	Municipality

		their disposable income on the energy bill		
	High energy burden	Percentage of population that after paying the energy bill falls below the social minimum norm	%	Municipality
	Gas consumption households	Gas consumption households in m3 gas per year	m³/year	Municipality
	Electricity consumption households	Electricity consumption households	kWh	Municipality
	Gas consumption industry	Gas usage industry in m3 gas equivalents per employee per year	m³/employee per year	Municipality
	Electricity consumption industry	Electricity consumption industry	kWh/employee	Municipality
	Wind energy	Wind energy on land	MW	Municipality
	Solar energy	Solar energy	kW/km²	Municipality
	Renewable energy	Percentage of renewable energy per municipality	%	Municipality
	Energy label homes	Average energy needs of homes with a provisional or registered energy label	kWh/m2	Homes
	Energy label utility buildings	Average energy needs of utility buildings with a provisional or registered energy label	kWh/m2	Utility buildings
SDG 8	Unemployment rate	Ratio of population between 0-20 and 65 years or older relative to the 'productive' population of 20 to 65 years	Jobs/labour force	Municipality
	Labour force potential	Percentage of labour force with a paid job	%	Municipality
	Demographic pressure	Ratio between	%	Municipality
	Employment opportunities	Ratio jobs / labour force	Jobs/labour force	Municipality
	Office vacancy	Percentage of empty offices	%	Municipality
	Retail vacancy	Percentage of empty stores	%	Municipality
	Potential business parks	Percentage of available business parks	%	Municipality
	Deprecated business parks	Percentage of deprecated business parks	%	Municipality
	Gross regional product	Gross national product (GNP) is an estimate of the total value of all the final products and services turned out in a given	Euro (x1000)	COROP

		period by the means of production owned by a country's residents. For this indicator, the GNP is divided by the number of inhabitants.		
SDG 9	Privately owned electric vehicles	Percentage fossil free cars (electric, plug in hybrid or full hybrid) registered by owner	%	Municipality
	Fossil free business vehicles	Percentage fossil free cars (electric, plug in hybrid or full hybrid) companies, registered by owner	%	Municipality
	Charging stations	Total number of (semi-)public charging stations for electronic vehicles	charging stations/10,000 inhabitants	Municipality
	Perceived bicycle environment	The perceived bicycle environment is determined through a couple of indicators: ability to cycle for 8 and 80 years olds, experience, maintenance, network, infrastructure, detour factor, roundabouts, 50 km/h roads and urban density.	Score	Municipality
	Distance to public transport (bus, tram, metro)	Average distance to a bus stop with s at least two busses per hour on weekdays between 07:00 and 20.00	Meter	Municipality
	Distance to train station	Distance to train station	km	Municipality
	Distance to main road	Distance to the nearest main road	km	Municipality
	Traffic jams	Length x duration of traffic jams per number of kilometres of national and regional roads	Minutes/year	Municipality
	Accessibility business parks	Accessibility to business parks	Score	Municipality
	Employment opportunities in high and medium tech sector	Percentage of employees in high and medium tech sector relative to the labour force (x1000)	%	Municipality
	Starting companies	Percentage of starting companies relative to the total number of companies	%	Municipality
	Fiber optics connection	Percentage of homes that can easily be connected or	%	Municipality

		are already connected to a fibre optics connection		
SDG 10	Gini index	The Gini coefficient measures the inequality among values of a frequency distribution, such as the levels of income. A Gini coefficient of 0 expresses perfect equality, where all values are the same, while a Gini coefficient of 1 (or 100%) expresses maximal inequality among values. For example, if everyone has the same income, the Gini coefficient will be 0. In contrast, if for a large number of people only one person has all the income or consumption and all others have none, the Gini coefficient will be nearly one.	Score (between 0 and 1)	Municipality
	Income inequality based on lineage	Difference between the average income of people who are born in the Netherlands and people who are not born in the Netherlands		Municipality
SDG 11	Satisfaction with local shops	Percentage of the population that is satisfied or very satisfied with local shops	%	Municipality
	Satisfaction with home	Percentage of the population that is satisfied or very satisfied with their home	%	Municipality
	Satisfaction with living conditions	Percentage of the population that is satisfied or very satisfied with their living conditions	%	Municipality
	Noise hindrance by neighbours	Percentage of the population that experiences severe noise hindrance by their neighbours	%	Municipality
	Noise hindrance from roads	Percentage of the population that experiences severe noise hindrance by traffic	%	Municipality
	Affordable rental housing	Percentage of cheap and affordable rental housing.	%	Municipality
	Affordable owned housing	Percentage of affordable owned housing <€250.000	%	Municipality

	Shortages in housing	Forecast of the shortage in housing. Calculated by a combination of shortages at housing market region.	%	COROP
	Vacant properties	Percentage of administrative empty homes	%	Municipality
	Participation in association	Number of people above 18 that at least monthly participates in an association	%	Municipality
	Volunteering	The share of people that was enrolled in any form of volunteer work.	%	Municipality
	Social relations	Percentage of population that regularly is in contact with friends, family or neighbours	%	Municipality
	Satisfaction with family life	Percentage of population that is satisfied with their partner	%	Municipality
	Trust in others	Percentage of population that in general trusts other people	%	Municipality
	Social cohesion	A score that indicates the social cohesion within a certain region	Score (1-10)	Municipality / police teams
SDG 12	Total amount of waste	Total amount of waste in kg/per inhabitant	kg/inhabitant	Municipality
	Dangerous waste	Amount of collected dangerous waste produced by industry	kg/inhabitant	Municipality
	Plastic waste	Amount of separately collected plastics (packaging, cans and packaging for beverages)	kg/inhabitant	Municipality
	Paper/cardboard waste	Amount of separately collected paper and cardboard	kg/inhabitant	Municipality
	Compostable waste	Amount of separately collected compostable waste	kg/inhabitant	Municipality
	Separation percentage	Percentage of separated waste relative to the total amount	%	Municipality
SDG 13	Surface hardening	Percentage of surface area that is hardened	%	Surface area
	Heat stress	Annual average temperature difference due to the heat-island effect	°C	Surface area

	Risk of flooding	Percentage of probable victims in case of a flood with a medium chance	% of inhabitants	Surface area
	Water hindrance	Percentage buildings with a probability of experiencing water hindrance in case of severe rain	%	Municipality
	Green roofs	Total coverage of green roofs relative to the total surface of flat roof	%	Municipality
	CO_2 emissions	Emission of CO_2 per inhabitant	kg/inhabitant	Municipality
	Nitrogen emissions	Emission of nitrogen per inhabitant	kg/inhabitant	Municipality
	Particulate matter emissions	Emission of particulate matter per inhabitant	kg/inhabitant	Municipality
	Emission of volatile organic substances	Emission of volatile organic substances per inhabitant (methane excluded)	kg/inhabitant	Municipality
	Emission of ammonia	Emission of ammonia per inhabitant	kg/inhabitant	Municipality
	Methane emissions	Emission of methane per inhabitant	kg/inhabitant	Municipality
	Nitrogen concentration	Concentration of nitrogen	$\mu g/m^3$	Surface area
	Ozone concentration	Concentration of ozone	$\mu g/m^3$	Surface area
	Particulate matter concentration	Concentration of particulate matter (PM2.5)	$\mu g/m^3$	Surface area
SDG 14	Fish stock	Percentage of water bodies in which the quality of the fish stock suffices according to the Water Framework Directive	%	Surface area
	Macro fauna	Percentage of water bodies in which the quality of the macro fauna suffices according to the Water Framework Directive	%	Surface area
	Water flora	Percentage of water bodies in which the quality of the water flora suffices according to the Water Framework Directive	%	Surface area
	Physio-chemical quality	Percentage of water bodies in which the physio-chemical suffices according to the Water Framework Directive	%	Surface area

	Other toxic substances	Percentage of water bodies in which the presence of other toxic substances suffices according to the Water Framework Directive	%	Surface area
	Presence of priority substances	Percentage of water bodies in which the presence of priority substance suffices according to the Water Framework Directive	%	Surface area
	Soil subsidence	Area with a subsidence over 2 mm per year	%	Municipality
	Quality swimming water	Quality score of swimming waters (excluding oceans)	Score 1-4	Municipality
SDG 15	Landscape aesthetic value	A score for the experience value of the green landscape.	score	Surface area
	Biodiversity	Species observed in a municipality over a period 10 years	amount/km2	Surface area
	Red list species	Red list species observed in a municipality over a period 10 years	amount/km2	Surface area
	Public green space	Percentage of public area with low greenery	%	Surface area
	Public trees	Percentage of public area covered in trees	%	Surface area
	Protected natural area	The percentage of protected nature reserves (Natura 2000 and Nature Network Netherlands)	%	Surface area
SDG 16	Violent crimes	Number of registered violent crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Sexual offences	Number of registered sexual offences per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Property crimes	Number of registered property crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Vandalism	Number of registered acts of vandalism per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Feeling unsafe	Percentage of inhabitants that either sometimes or often feels unsafe	%	Municipality / police teams
	Victims	Number of registered crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality / police teams
	Child abuse	Percentage notifications of parenting problems of	%	Municipality

		children between 0 and 19 years old.		
	Youth criminals	Youths (12 to 17) going to the youth criminal bureau per 10.000 inhabitants	Number per 10.000 inhabitants	Municipality
	Politically active residents	Population over 18 that partook in political action in the last 5 years	%	Municipality
	Trust in politics	Population that has quite a lot or a lot of trust in the House of Representatives (Tweede Kamer)	%	Municipality
	Turnout Municipal Elections	The average turnout in the municipal elections in the period 2010-2022.	%	Municipality
	Trust in institutions	Percentage of population that has quite a lot, or a lot of trust in banks, the EU, churches, the military, the press, the police, judges and government officials	%	Municipality

Annex C – Overview of Use of Proceeds indicators

Table 12 Descriptions of the UoP indicators

Use of Proceeds	Indicator	Calculation	Unit	Aggregation
Access to essential services	Overweight	Percentage of population with severe overweight	%	Municipality
	Alcohol use	Percentage of population with excessive alcohol use	%	Municipality
	Smoking	Percentage of population that smokes	%	Municipality
	Life expectancy	Average life expectancy at birth	Year	Municipality
	Suicides	Number of suicides in a district or municipality per 1000 inhabitants	Number per 1000 inhabitants	Municipality
	Chronically ill	Percentage of inhabitants with one or more long term illnesses	%	Municipality
	Distance to general practice	Distance to general practice	km	Municipality
	Distance to hospital	Distance to hospital (including polyclinic)	km	Municipality
	Hospital quality	Quality score hospitals	score (0-4)	Hospitals
	Mental healthcare costs	Average mental healthcare cost (basic and specialized) per inhabitant	cost per inhabitant	Municipality
	Insufficient exercise	Percentage of population that does not comply to the exercise norm	%	Municipality
	Drug use	Number of drug addicts per 10.000 inhabitants	Number per 10.000 inhabitans	MO/VB-district
	Exercise friendly environment	Exercise friendly environment consists of several sub indicators (Number of public sport accommodations, sport -and playfields, sport, play and exercise areas, routes, rural area, distance to recreational facilities) that together make up the score of exercise friendly environment	Score	Municipality
	Perceived health	Percentage of population who perceives health as good	%	Municipality
	Early education leavers	Percentage of students (younger than 23) that leaves school without a basis qualification	%	Municipality
	Education level	Percentage low-skilled	%	Municipality

	Distance to elementary school	Distance to elementary school	km	Municipality
	Distance to secondary school	Distance to secondary school	km	Municipality
	Diploma without delay	Percentage of students in secondary education that graduates without delay	Index	Municipality
	Highly educated	Percentage of populated that is highly educated	%	Municipality
	Distance to performing arts	Distance to performing arts	km	Municipality
	Distance to museums	Distance to museums	km	Municipality
	National monuments	Number of national monuments per 1000 inhabitants	Number per 1000 inhabitants	Municipality
	Municipal monuments	Number of municipal monuments per 1000 inhabitants	Number per 1000 inhabitants	Municipality
	Protected cityscapes	Percentage surface of protected cityscapes per municipality	%	Municipality
	Cultural landscape	Number of heritage maps per municipality	Number	Municipality
	Festivals	Number of festivals per municipality per 10000 inhabitants	Number per 10000 inhabitants	Municipality
Socioeconomic advancement	Social relations	Percentage of population that regularly is in contact with friends, family or neighbours	%	Municipality
	Participation in association	Number of people above 18 that at least monthly participates in an association	%	Municipality
	Volunteers	Percentage of population that volunteers	%	Municipality
	Family	Percentage of population that is satisfied with their partner	%	Municipality
	Trust	Percentage of population that in general trusts other people	%	Municipality
	Social cohesion	A score that indicates the social cohesion within a certain region	Score (1-10)	Municipality / police teams
	Victims	Number of registered crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality / police teams
	Feeling unsafe	Percentage of inhabitants that either sometimes or often feels unsafe	%	Municipality / police teams

	Turnout local elections	Average turnout of local elections	%	Municipality
	Trust in institutions	Percentage of population that has quite a lot, or a lot of trust in banks, the EU, churches, the military, the press, the police, judges and government officials	%	Municipality
	Violent crimes	Number of registered violent crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Property crimes	Number of registered property crimes per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Vandalism	Number of registered acts of vandalism per 1.000 inhabitants	Number per 1.000 inhabitants	Municipality
	Child abuse	Percentage notifications of parenting problems of children between 0 and 19 years old.	%	Municipality
	Youth criminals	Youths (12 to 17) going to the youth criminal bureau per 10.000 inhabitants	Number per 10.000 inhabitants	Municipality
	Gini coefficient	Inequality ratio assets	ratio	Municipality
	Loneliness	Percentage of population with a high emotional or social loneliness score (adults over 19)	%	Municipality
	Household capital	Households with a capital of €5000,- or more	%	Municipality
	Disposable income	Average disposable income per municipality in €1000,-	1.000 euro	Municipality
	Government assistance	Average number of inhabitants having government assistance as a percentage of the average labour force for the respective year	%	Municipality
	Poor households	Percentage households with an income to 105% of the social minimum over a span of at least 4 years relative to the total number of households	%	Municipality
	Children in poverty	Percentage of minors (<18 years old) living in a household below the low-income threshold	%	Municipality
	Gender inequality in income	Ratio mean income - women		Municipality

	(Judicial) administration	Percentage of inhabitants on 1st of January with (judicial) administration	%	Municipality
	Financial struggle	Percentage of persons (>18 years old) that self-reported that they are having difficulties making ends meet in the last 12 months	%	Municipality
Employment generation	Gross regional product	Gross national product (GNP) is an estimate of the total value of all the final products and services turned out in a given period by the means of production owned by a country's residents. For this indicator, the GNP is divided by the number of inhabitants.	Euro (x1000)	COROP
	Unemployment rate	Ratio of population between 0-20 and 65 years or older relative to the 'productive' population of 20 to 65 years	ratio	Municipality
	Work disability	Percentage of inhabitants with a work disability	%	Municipality
	Labour force potential	Percentage of labour force with a paid job	%	Municipality
	Employment opportunities	Ratio jobs / labour force	Jobs/labour force	Municipality
	Youth unemployment rate	Percentage inhabitants (15-25 years old) that is unemployed	%	Municipality
	Employment opportunities in high and medium tech sector	Percentage of employees in high and medium tech sector relative to the labour force (x1000)	%	Municipality
Affordable basic infrastructure	Distance to train station	Distance to train station	km	Municipality
	Distance to main road	Distance to the nearest main road	km	Municipality
	Privately owned electric vehicles	Percentage fossil free cars (electric, plug in hybrid or full hybrid) registered by owner	%	Municipality
	Fossil free vehicles	Percentage fossil free cars (electric, plug in hybrid or full hybrid) companies, registered by owner	%	Municipality
	Charging stations	Total number of (semi-)public charging stations for electronic vehicles	charging stations/ 10,000 inhabitants	Municipality
	Fiberglass connection	Percentage of homes that can easily be connected to a fiberglass connection (including homes that	%	Municipality

		already have a fiberglass connection)		
	Traffic jams	Length x duration of traffic jams per number of kilometres of national and regional roads	Minutes/year	Municipality
	Perceived bicycle environment	The perceived bicycle environment is determined through a couple of indicators: ability to cycle for 8 and 80 years old, experience, maintenance, network, infrastructure, detour factor, roundabouts, 50 km/h roads and urban density.	Score	Municipality
	Starting companies	Percentage of starting companies relative to the total number of companies	%	Municipality
	Fossil free vehicles	Percentage fossil free cars (electric, plug in hybrid or full hybrid)	%	Municipality
	Distance to public transport (bus, tram, metro)	Average distance to a bus stop with s at least two busses per hour on weekdays between 07:00 and 20.00	Meter	Municipality
	High energy quote	Percentage of population that spends over 10% of their disposable income on the energy bill	%	Municipality
	Renewable energy	Percentage of renewable energy per municipality	%	
	Wind energy	Wind energy on land	MW	Municipality
	Solar energy	Solar energy	kW/km^2	Municipality
	Gas consumption households	Gas consumption households in m3 gas per year	m^3/year	Municipality
	Electricity consumption households	Electricity consumption households	kWh	Municipality
	Energy label	Average energy needs of homes with a provisional or registered energy label	kWh/m^2	Homes
	Energy label utility buildings	Average energy needs of utility buildings with a provisional or registered energy label	kWh/m^2	Utility buildings
	Gas consumption industry	Gas usage industry in m3 gas equivalents per employee per year	m^3/employee per year	Municipality
	Electricity consumption industry	Electricity consumption industry	kWh/employee	Municipality

Green buildings	Green roofs	Green roofs as percentage of the total area of flat roof surface	%	Buildings
	Surface hardening	Percentage of surface area that is hardened	%	Surface area
Environmentally sustainable management of living natural resources and land use	Public trees	Percentage of public area covered in trees	%	
	Naturalness of the landscape	A score for the experience of the green landscape	score	Surface area
	Protected natural reserves	The percentage of protected nature reserves (Natura 2000 and Nature Network Netherlands)	%	Surface area
	Public green space	Percentage of public area with low greenery	%	Municipality
	Emission of phosphorus on surface waters	Emission of phosphorus on surface waters per hectares	Kg/hectare	Drainage unit
	Emission of nitrogen on surface waters	Emission of nitrogen on surface waters per hectares	Kg/hectare	Drainage unit
	Biodiversity	Species observed in a municipality over a period 10 years	amount/km2	Surface area
	Red list species	Red list species observed in a municipality over a period 10 years	amount/km2	Surface area
	Nitrogen deposition	The average nitrogen deposition	mol/ha/year	Surface area
Pollution prevention and control	Total amount of waste	Total amount of waste in kg/per inhabitant	kg/inhabitant	Municipality
Pollution prevention and control	Separation percentage	Percentage of separated waste relative to the total amount	%	Municipality
	Particulate matter concentration	Concentration of particulate matter (PM2.5)	µg/m^3	Surface area
	Nitrogen concentration	Concentration of nitrogen	µg/m^3	Surface area
	Ozone concentration	Concentration of ozone	µg/m^3	Surface area
Sustainable water and wastewater management	Quality swimming water	Quality score of swimming waters (excluding oceans)	Score 1-4	Municipality
	Fish stock	Percentage of water bodies in which the quality of the fish stock suffices according to	%	Surface area

		the Water Framework Directive		
	Macro fauna	Percentage of water bodies in which the quality of the macro fauna suffices according to the Water Framework Directive	%	Surface area
	Water flora	Percentage of water bodies in which the quality of the water flora suffices according to the Water Framework Directive	%	Surface area
	Physio-chemical quality	Percentage of water bodies in which the physio-chemical suffices according to the Water Framework Directive	%	Surface area
	Other toxic substances	Percentage of water bodies in which the presence of other toxic substances suffices according to the Water Framework Directive	%	Surface area
	Presence of priority substances	Percentage of water bodies in which the presence of priority substance suffices according to the Water Framework Directive	%	Surface area

OPGERICHT IN
1947

GEVESTIGD IN
TILBURG

KENNISONDERNEMING
STICHTING ZONDER WINSTOOGMERK

AANTAL MEDEWERKERS

35

INTENSIEVE SAMENWERKINGEN
MET UNIVERSEITEN EN ANDERE KENNISINSTELLINGEN

EXPERTISE

> PARTICIPATIE & GOVERNANCE
> WOON- & LEEFOMGEVING
> DUURZAAMHEIDSTRANSITIES
> SOCIAAL DOMEIN & ARBEID
> CULTUUR & ERFGOED
> DUURZAAMHEIDSIMPACT
> DATA EN METHODEN

ONZE OPDRACHTGEVERS

> PROVINCIES
> GEMEENTEN
> ZORG- EN WELZIJNSINSTELLINGEN
> FONDSEN
> BANKEN

HET pon|telos

About Het PON & Telos

Improving social decision-making

Het PON & Telos is a renowned research institute based in the Netherlands. It was formed through the merger of two well-established research organizations, Het PON and Telos, in 2020. The institute specializes in conducting interdisciplinary research and providing expertise in various domains, including social issues, sustainable development, and regional development. Het PON & Telos aims to generate knowledge and insights that contribute to a better understanding of society and support evidence-based decision-making. They collaborate with government organizations, non-profit organizations, banks, and academic institutions to address complex challenges and promote sustainable and inclusive development.

Sustainable development is one of the key areas of expertise for Het PON & Telos. They undertake research and consultancy projects related to sustainable development, environmental impact, energy transition, circular economy, and social responsibility. By combining their expertise in sustainable development with social and economic factors, the institute helps organizations navigate the complexities of sustainable development and make informed decisions that balance environmental, social, and economic stakes.

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