

FOR PARTICIPANTS ONLY

10 November 2020

ENGLISH ONLY

**UNITED NATIONS
CENTRE FOR REGIONAL DEVELOPMENT**

In collaboration with

**Ministry of the Environment, Government of Japan
United Nations Economic and Social Commission for Asia & the Pacific**

**INTERGOVERNMENTAL 13th REGIONAL ENVIRONMENTALLY
SUSTAINABLE TRANSPORT (EST) FORUM IN ASIA**

10-11 NOVEMBER 2020

Virtual meeting via video conference in Webex platform

**Concept for an integrated reporting mechanism for transport, climate
change and SDGs**

(Background Paper for EST Plenary Session-1)

Final Draft

This background paper has been prepared by Mr. Holger Dalkmann in support of GIZ for the 13th Regional EST Forum in Asia. The views expressed herein are those of the author only and do not necessarily reflect the views of the United Nations.

***Disclaimer:** The designations employed and the presentation of the material in this report do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the UNCRD, nor does citing of trade names or commercial processes constitute endorsement.*



Concept for an integrated reporting mechanism for transport, climate change and SDGs

Background Paper prepared for the 13th EST Forum pre-event

October 2020

CHANGING TRANSPORT

Facilitating climate actions in mobility



We change transport to limit global warming!

We promote sustainable transport worldwide to harness societal benefits, such as access to jobs, clean air and economic development, to improve quality of life and to fight climate change.

www.changing-transport.org

Project Background

Transport is the highest energy-consuming sector in 40% of all countries worldwide, and causes about a quarter of energy-related CO₂ emissions. To limit global warming to below two degrees, an extensive transformation and decarbonisation of transport is necessary. Against this background, two initiatives of German international cooperation have dedicated themselves to bolstering climate strategies in the transport sector.

The Advancing Transport Climate Strategies (TraCS) team helps policymakers in developing countries and emerging economies to align their mobility and transport sector action plans with their climate plans, the so-called Nationally Determined Contributions (NDCs). It further supports the development of transparency frameworks and data collection in the transport sector.

The NDC Transport Initiative for Asia (NDC-TIA) project's objective is to decarbonize the transport sector in China, India, Vietnam, and further Asian countries. This includes both the development of comprehensive and coherent transport climate strategies, coordinated between various sector ministries, civil society and the private sector, as well as concrete actions, such as e-mobility development.

The NDC-TIA is a joint programme of the following seven organisations: GIZ, World Resources Institute (WRI), International Council on Clean Transportation (ICCT), International Transport Forum (ITF), Agora Verkehrswende (AGORA), Partnership on Sustainable, Low Carbon Transport (SLOCAT) Foundation and Renewable Energy Policy Network for the 21st Century e.V. (REN21).

Both projects are funded by the International Climate Initiative (IKI) of the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Meet us at www.changing-transport.org

Disclaimer

The content presented in this document has been compiled with the utmost care. Nevertheless, GIZ gives no guarantee that the information provided is current, accurate, complete or error-free. GIZ accepts no liability for damage or loss arising directly or indirectly from the use of this document, provided it has not been caused intentionally or by gross negligence.

GIZ expressly reserves the right to modify or append this document in part or in whole without prior notice, or to halt publication completely or for a limited period. Cartographic presentations in no way constitute recognition under international law of boundaries and territories. The content of GIZ GmbH's documents is protected by copyright. The images used are marked with photo credits where required by law. The use of any images requires the prior consent of GIZ GmbH, if not stated otherwise.

Acknowledgements

This paper has been prepared by Mr. Holger Dalkmann, for the 13th Regional EST Forum in Asia. The paper was funded by GIZ. The author would like to thank Urda Eichhorst, Dennis Knese, Karl Peet and Joanne Green for their helpful reviews.

Content

Executive Summary	2
1. Introduction: Background and objectives.....	3
2. Current Reporting Frameworks.....	5
2.1 Climate Change Reporting requirements: Katowice Rule Book	5
2.2 Sustainable development SDG reporting requirements	7
2.2.1 Annual Review and Reporting	9
2.2.2 Management and Institutional Set Up	10
3. Sustainable Development and Climate Change Reporting Linkages.....	12
4. Existing transport reporting mechanisms	14
4.1 Global data and policy collection	14
4.2 Regional data and policy collection	15
4.3 National data and policy collection	16
4.4 Local data and policy collection.....	16
4.5 Relevant data and policy collection outside transport.....	16
4.6 Private sector data	17
4.7 Key observations.....	17
5. Towards a long-term vision: An Integrated Transport Climate & SDG Report	19

List of Figures

Figure 1: Responsibilities under the transparency framework.....	6
Figure 2: SDGs targets directly and indirectly related to transport.....	8
Figure 3: Number of VNRs (143 countries submitted 156 VNRs) with references to transport sub-sectors (2016-2019)	9
Figure 4: Data Flow in SDG Reporting – SDG 6.....	10

List of Boxes

Box 1: Information required for the NDC under the Paris Agreement.....	7
Box 2: NDC vs VNR.....	13
Box 3: The Environmental Sustainable Transport Forum: Potential for a future regional integrated reporting system	23

Executive Summary

While there are increasing efforts from countries to meet the climate objectives of the Paris Agreement, current research is telling us that we need further enhancement to get on a pathway towards net zero carbon by the middle of the century.

Emissions from the transport sector are still growing and need particular attention. At the same time, transport has a wide range of functions and has a strong role to play in enabling many of the Sustainable Development Goals (SDGs). To better understand the multiple impacts of policy action and to assess progress towards a sustainable transformation, it is vital to have a transparent reporting system. Growing research and discussions around alignment of the reporting processes for the Paris Agreement on Climate Change and the Agenda 2030 on Sustainable Development take place, which creates a momentum to progress towards an integrated transport reporting system.

This paper creates a vision for:

- Better alignment of climate (National Determined Contribution (NDC)) and SDG reporting;
- Alignment across different reporting levels (local, national, regional, global);
- Integration of different stakeholders in the reporting process (e.g. transport agencies, businesses, energy and health sectors);

While SDGs and NDCs (through its VNR and Transparency Report) provide an initial foundation, more efforts are needed to create a future Regional/Global Reporting Framework on transport.

The report identifies five key elements for action:

Element 1: Alignment on SDG/climate reporting

Element 2: Vertical integration for harmonisation and standardisation

Element 3: Alignment with other sectors

Element 4: From ad-hoc to long-term reporting on disaster risk management

Element 5: Capacity building and institutionalisation on national level

The Regional EST Forum, which is currently revising its future reporting framework and policy alignment by 2021, could be a blueprint for other regions. Building on current national reporting initiatives, such as by Asian Development Bank (Asian Transport Outlook), and harmonization efforts on data collection on energy and GHG by ASEAN, the EST Forum could create a platform to allow the comparison of policy actions and their impacts, and to share good practices to enable sustainable mobility in Asian countries.

1. Introduction: Background and objectives

The latest announcement by Chinese President Xi Jinping before the U.N. General Assembly on September 22nd, 2020 states that his country aims “to have CO₂ emissions peak before 2030 and achieve carbon neutrality before 2060”. Similarly, the European Parliament voted in October 2020 to increase the EU CO₂ reduction target for 2030 to 60 percent. Both these pledges have raised the bar for enhanced actions in times where the world faces a global challenge through COVID-19.^{1,2}

The Parties to the United Nations Framework Convention for Climate Change (UNFCCC) have enshrined their greenhouse gas (GHG) mitigation targets in their so-called Nationally Determined Contributions (NDCs). They must be revised every five years and must become more ambitious over time. The first update of NDCs is taking place in 2020, though with postponement of the COP26 in Glasgow to 2021 it can be expected that there will also be a delay in the country submissions. At the time of publication of this report in October 2020, only 15 countries had submitted a 2020 NDC (including resubmissions and updates).³ Suriname already submitted a second NDC at the end of 2019 and the Marshall Islands at the end of 2018.

During the COVID-19 pandemic we have noticed how radical action to reduce the negative impacts of transport on issues such as air pollution, accident rates and GHG emissions is possible on a short timescale and with a significant and positive impact on public health and safety.⁴ However, scientists and politicians highlight that the current reduction of air pollutants, GHG emissions, road fatalities, etc. are not sustainable due to the negative impacts on the economy. At the same time, the global COVID-19 pandemic has severely affected public transport operations, with many operators and governments struggling to maintain service levels. Therefore, it is timely to reflect on actions towards decarbonisation and sustainability and on how to enhance them during and beyond the COVID-19 pandemic.

Although there are increasing efforts from countries to meet the climate objectives of the Paris Agreement, current research reveals that we need further enhancement to get on a pathway towards net zero carbon by the middle of the century. Emissions from the transport sector are still growing and need particular attention. As the current transport sector is contributing around 8 Gt, there is a need to reduce its GHG emissions by 75-80% to reach the 1.5 °C target (SLOCAT 2018, Axsen 2020). At the same time transport has a wide range of functions and has a strong role to play in enabling many of the Sustainable Development Goals (SDGs). **To better understand the multiple impacts of policy action and to assess progress towards a sustainable transformation, it is vital to have a transparent reporting system.** Currently, apart from the agreed methodology on GHG emissions by the IPCC and methodologies for a few dedicated SDGs, such as road fatalities (SDG 3.6), there is a lack of consistent and integrated processes for

¹ <https://www.climateworks.org/blog/china-pledged-net-zero-emissions-by-2060-heres-what-it-will-take-to-get-there/>

² <https://www.theparliamentmagazine.eu/news/article/european-parliament-votes-in-favour-of-co2-reduction-target-of-60-percent-by-2030>

³ <https://www.climatewatchdata.org/2020-ndc-tracker>

⁴ <https://www.nature.com/articles/s41467-020-18922-7>

reporting within the transport sector. However, growing research and discussions around aligning the reporting processes for the Paris Agreement on Climate Change with the Agenda 2030 on Sustainable Development are taking place, as demonstrated in the recently published paper on NDC/SDG alignment by the Islamic Development Bank and the Partnership for Sustainable Low Carbon Transport (SLOCAT).⁵

The objective of this background paper is to reflect on ideas and discuss options for a future reporting mechanism for the transport sector to:

- Better align climate (National Determined Contribution (NDC)) and SDG reporting;
- Align different reporting levels (local, national, regional, global);
- Integrate different stakeholders in the reporting process (e.g. transport agencies, businesses, energy and health sectors);
- Identify options to implement the reporting recommendations.

This paper builds on several ongoing activities by different stakeholders to improve data collection and reporting in the transport sector. E.g. there are recent efforts by the Asian Development Bank (ADB) to create a national transport outlook for Asia (ATO) which might be a step towards regular reporting and shows the value and interest in the subject, and GIZ has been working with several partner countries and on international level to improve transparency frameworks in the transport sector on behalf of the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) (see <https://www.changing-transport.org/maintopic/transparency/>).

⁵ <https://slocat.net/isdb-slocat-sustainable-transport/>

2. Current Reporting Frameworks

Out of the many global agreements four seem to be particularly relevant to the transport sector:

- Sendai Framework for Disaster Risk Reduction (March 2015)
- The 2030 Agenda for Sustainable Development (September 2015)
- Paris Agreement on Climate Change (December 2015)
- New Urban Agenda (October 2016)

The Sendai framework for disaster risk has not yet received much attention as so far only 85 countries have created their national disaster strategies⁶, however with the current COVID-19 pandemic it might get more attention in the future and should therefore be considered as part of a future integrated transport reporting.

The New Urban Agenda (NUA) was adopted at the United Nations Conference on Housing and Sustainable Urban Development (HABITAT 3) in Quito, Ecuador in October 2016 and endorsed later that year by the UN General Assembly. It is an action-oriented document to encourage member states and other stakeholder to take action on local level. The NUA has a strong urban mobility component, but there is no established reporting or tracking process as part of the agreement. The implementation and the monitoring are managed under SDG 11 (“Make cities and human settlements inclusive, resilient and sustainable”).

The following sections will focus on the reporting requirements of the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change.

2.1 Climate Change Reporting requirements: Katowice Rule Book

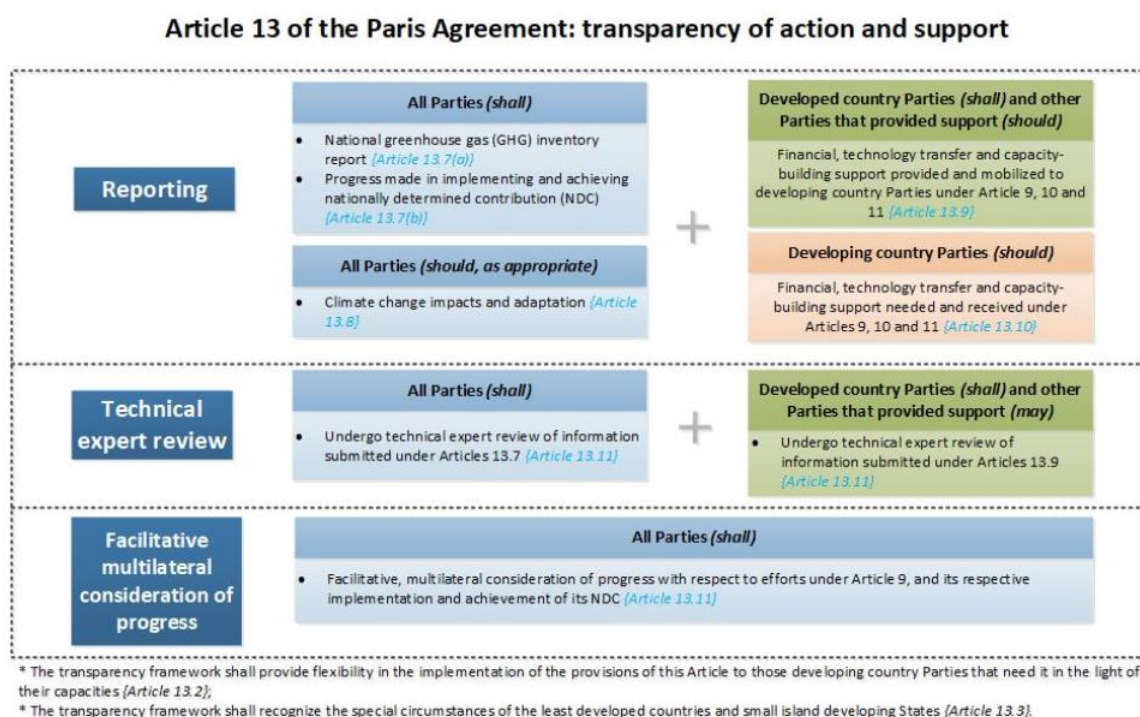
In the transport sector current mitigation objectives are rarely in line with the Paris Agreement’s goal to keep global warming to well below 2° Celsius, which essentially requires net zero emissions from transport by mid-century. Instead, transport related emissions are on the rise worldwide, especially in developing countries and emerging economies.

One element of the development of effective transport climate strategies rests upon the availability of comprehensive data and the application of sound assessment methods for emission reduction potentials. All parties have to report on their emissions and climate actions under the Enhanced Transparency Framework of the Paris Agreement from 2020 onwards. A national GHG emission inventory is a key part of these Transparency Reports and emissions reporting is increasingly gaining importance in all sectors and at different levels of government. At the same time, quantifying emission reductions from mitigation actions and reporting on them is also required to access climate finance. Article 13 of the Paris Agreement describes the details of the reporting and review process (see Figure 1). Reporting is essential for countries to understand their emission levels and how they are progressing towards their implementation goals, including the challenges and barriers they face. Furthermore, it is essential for countries to have sight of each other’s

⁶ <https://sdgs.un.org/goals/goal13>

reporting outputs to build trust among countries and to understand globally whether we are on track to limit global warming or not (WRI, 2018).⁷

Figure 1: Responsibilities under the transparency framework



Source: UNFCCC 2020⁸

Article 13 of the Paris Agreement and its subsequent guidelines for the enhanced transparency framework were agreed by the Parties in Katowice at COP24 (18/CMA.1).⁹ The key elements required to track progress on implementation and achievement of NDCs were described within the Article (see Figure 1). Different options for the initially suggested tabular format were discussed in 2019 during COP 25 in Madrid. Though the final registry prototype is still to be approved, there is already an alignment on the main elements (see Box 1).¹⁰ Furthermore, it was agreed at COP24 that the guidelines will be reviewed in 2025. In the meantime, countries are developing their national transparency frameworks based on the preliminary guidance that is available.

⁷ <https://www.wri.org/paris-rulebook/global-stocktake>

⁸ <https://unfccc.int/process-and-meetings/transparency-and-reporting/the-big-picture/what-is-transparency-and-reporting#:~:text=%20The%20enhanced%20transparency%20framework%20is%20expected%20to,in%20the%20context%20of%20climate%20change...%20More%20>

⁹ <https://unfccc.int/documents/193408>

¹⁰ https://unfccc.int/sites/default/files/resource/SBSTA.50.IN.10b_0.pdf

Box 1: Information required for the NDC under the Paris Agreement

Modalities, procedures and guidelines for the transparency framework (FCCC/PA/CMA/2018/3/Add.2, 82 Mitigation policies: Each Party shall provide the following information on its actions, policies and measures, to the extent possible, in a tabular format: (a) Name; (b) Description; (c) Objectives; (d) Type of instrument (regulatory, economic instrument or other); (e) Status (planned, adopted or implemented); (f) Sector(s) affected (energy, transport, industrial processes and product use, agriculture, LULUCF, waste management or other);¹¹

In 2022, a global stocktake to assess countries' collective progress toward the Paris Agreement's long-term goals will begin with the collection of information from sources including the NDC submissions and information from scientific studies by the IPCC. This will be followed by a technical assessment and will be presented by the end of 2023 at COP28.¹²

It was agreed in Paris, that the emissions reporting will be based on the 2006 IPCC guidelines. According to the guidelines, transport is part of the energy sector. Road transport data can be reported based on aggregated fuel consumed (top-down) or distance travelled by different vehicle types (the activity data).¹³ For countries with a lack of disaggregated transport data the top-down approach of fuel consumption is usually the default method. This approach, however, does not allow for an accurate disaggregation of emissions from different vehicle classes such as private vehicles versus freight transport. etc. It therefore does not allow to easily identify the largest emitters and best suited policy approaches to address emissions reductions. In addition, cycling and walking activity are understandably not captured at all in this methodology due the absence of emissions.

In contrast to the inventory guidelines, the transparency framework lists transport as a separate sector and asks for details on policy actions on mitigation.¹⁴ In order to assess the emission reduction potential of non-motorised transport, activity data on walking and cycling are required in addition to activity data necessary for the inventory.

2.2 Sustainable development SDG reporting requirements

Next to the Paris Agreement, the Sustainable Development Goals (SDGs) is the other major global commitment towards climate and sustainability.

The Agenda 2030 for Sustainable Development, signed in New York in 2015, contains 17 global universal goals (Sustainable Development Goals). Whilst there is no separate goal for transport, twelve out of the seventeen goals are related to transport. The SLOCAT Partnership (2019) identified five direct and seven indirect related targets to transport which are demonstrated in Figure 2. The second circle in Figure 2 shows the directly related targets, while the outer circle represents the indirect targets.

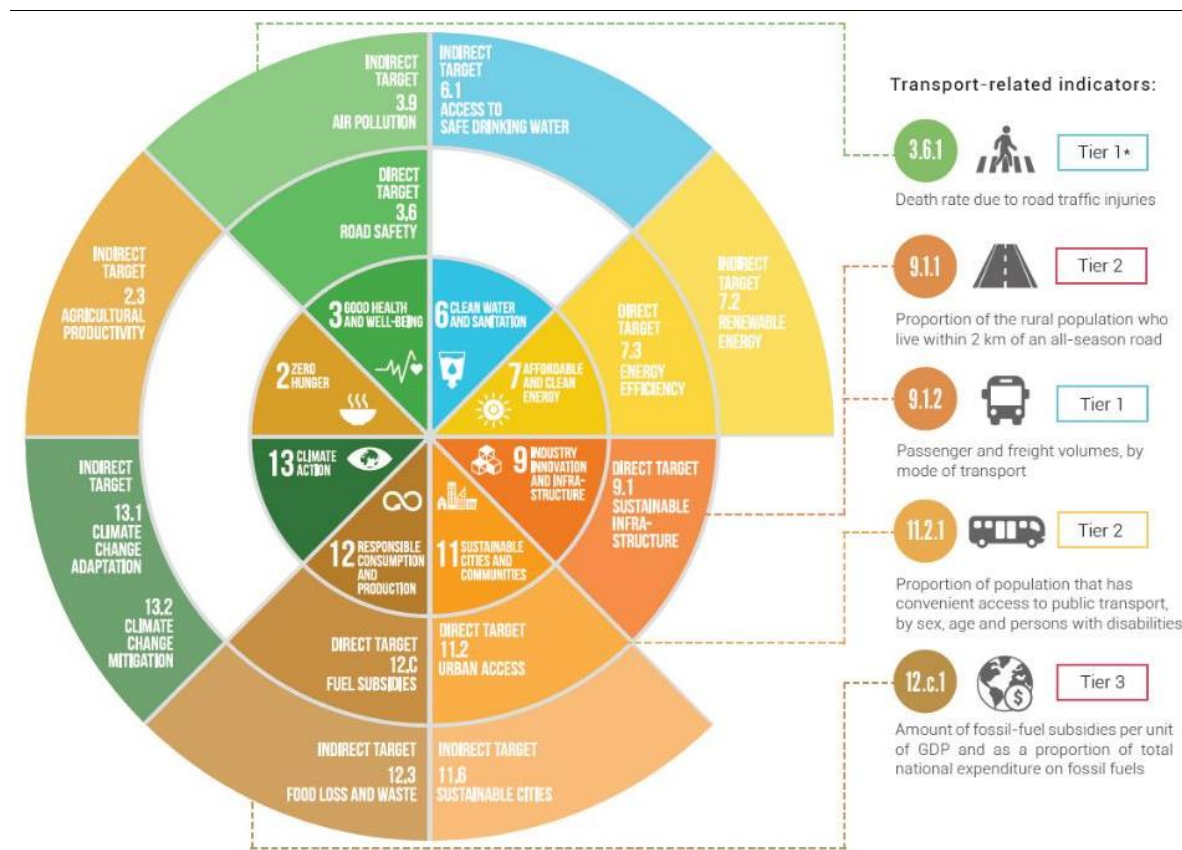
¹¹ https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf

¹² <https://www.wri.org/paris-rulebook/global-stocktake>

¹³ https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_3_Ch3_Mobile_Combustion.pdf

¹⁴ https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf (50)

Figure 2: SDGs targets directly and indirectly related to transport

Source: SLOCAT¹⁵

The SDGs provide key guidance for national governments as well as multilateral organisations on how to align their future policies and investments. Voluntary National Reviews are encouraged for member states to “conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country driven” (Paragraph 79)¹⁶. One of the aims of the VNRs to share experiences and to mobilize multi-stakeholder support and partnerships.¹⁷ An annual analysis of the Voluntary National Reports (VNR) by SLOCAT Partnership shows that there is no consistent reporting against all the different sub goals related to transport. Recent studies by Deutsches Institut für Entwicklungspolitik (DIE) (2018) and WRI (2018) highlighted the opportunities as well as challenges of linking climate reporting and VNRs to reduce administrative effort, improve data quality and increase understanding of the impacts of transport policies, which will be further discussed in chapter 3.

¹⁵ <https://slocat.net/publications/vnr-sustainable-transport-sdgs/>

¹⁶ <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

¹⁷ <https://sustainabledevelopment.un.org/vnrs/>

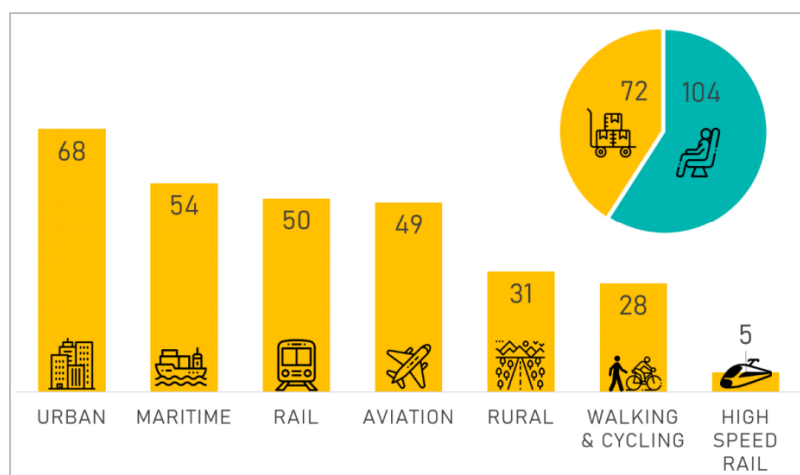
With no dedicated transport SDG, unlike for other sectors such as water (SDG 6) or energy (SDG 7), several initiatives have highlighted the resulting challenges for the sector. This is demonstrated by SLOCAT, Sustainable Mobility for All (SuM4All)¹⁸, and the UN High Level Panel for Sustainable Transport¹⁹. As there is no separate goal for transport, it is often given a lower level of priority within country actions and reporting. As a result, there is a lack of guidance for multilateral support, which inevitably leads to a lack of focus and more complex data collection and reporting. The low level of reporting against transport indicators in the VNR (see Figure 3) reflects the diffuse nature of how transport is considered within the SDG targets and indicators.

2.2.1 Annual Review and Reporting

The High-level Political Forum on Sustainable Development (HLPF) serves as the central UN platform for the follow-up and review of the SDGs. Every year in July the HLPF holds its meeting in New York and reviews several selected targets as well as country reports. The so-called Voluntary National Reviews (VNRs) provide the latest developments on the SDG indicators. They also summarise key actions contributing to the global goals. Without a separate goal for transport, every year SLOCAT provides a review from a transport perspective.

Although the overall inclusion of transport in the reporting has grown over time (in 2016 only 64% of the countries included transport in their VNRs and by 2020 this had increased to 95%), there is a lack of quantitative data provided. The information on different goals varies enormously as figure 3 shows. In 2020, 23% of the country submissions reported specific transport targets, while half of the submitted VNR included explicit references to transport sustainability impacts. Out of the 156 VNRs submitted between 2016 and 2019, 72 countries included references to freight transport, while 104 covered passenger transport.

Figure 3: Number of VNRs (143 countries submitted 156 VNRs) with references to transport sub-sectors (2016-2019)



Source: [SLOCAT 2020](#)²⁰

¹⁸ <https://www.sum4all.org/>

¹⁹ <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=2375&menu=35>

²⁰ https://slocat.net/wp-content/uploads/2020/02/SLOCAT_2019_transport_and_vnrs_2014-2019_final_version.pdf

2.2.2 Management and Institutional Set Up

The collection of the SDG data is undertaken annually by each country, however, the majority of countries have only shared their VNRs once between 2016 and 2019. Each country is responsible for the collection and national monitoring of their data via their National Statistical Office (NSO). Figure 4 summarises the data flow for SDG 6 as an example. The NSO submits the data collected via different line ministries and other national institutions to the custodian agencies, which for transport are equivalent to the international agencies in Figure 4. The detailed data, however, stay with the national government, although there is a minimum requirement to provide one national aggregate figure per indicator. National governments are encouraged to share more details on the sub-components of the indicators and a higher level of disaggregation with the custodian agency and through their VNR.

The custodian agencies have responsibility for compiling and verifying country data as well as submitting those data to the United Nations Statistics Division (UNSD). Furthermore, the agencies are responsible for developing standards and recommending methodologies. Many of the agencies also use the data for their own databases and reporting. For example, UNHABITAT is the custodian agency for SDG 11.2 (Provide access to safe, affordable, accessible and sustainable transport system for all).

Figure 4: Data Flow in SDG Reporting – SDG 6

Source: [UN Water](#)²¹

In order to develop and implement a global indicator framework an Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDGs) was set up by the United Nations Statistical Commission in 2016. Furthermore, IAEG-SDG is responsible for reviewing the methodology development of the SDG indicators.²² As Climate Action is included in the SDGs

²¹ <https://www.sdg6monitoring.org/activities/roles-and-responsibilities/>

²² For terms of reference for the Inter-Agency and Expert Group see: https://unstats.un.org/sdgs/files/IAEG-SDGs%20Terms%20of%20Reference_2017.pdf

as a separate goal (SDG 13), the indicator framework focusses on policy and financial related activities rather than on the emission reduction targets themselves. Nevertheless, target 13.2. (“Integrate climate change measures into national policies, strategies and planning”) has the potential to be linked to the transparency reporting.

In 2019, the IAEG-SDG carried out an open consultation reviewing the current indicators and allowing suggestions for refinements, revisions, replacements, additions and deletions to present for decision to the UN Statistical Commission in March 2020. There were no suggestions tabled in the summary report for any transport related indicators.²³

²³ <https://unstats.un.org/sdgs/iaeg-sdgs/2020-comprev/UNSC-proposal/>

3. Sustainable Development and Climate Change Reporting Linkages

Within the climate change discussion, the importance of the sustainable development benefits of low carbon actions have been discussed and reflected throughout the last 30 years. However, in the final reporting requirements agreed for the NDCs, other aspects of sustainable development had only an informational character and were therefore not well described in the first round of NDC submission. The Katowice rulebook includes co-benefits as part of the recommended reporting scheme, though it is left to the countries to decide how to share this information. For example, Kenya included in their National Climate Change Action Plan an overview of links between the major climate actions and the SDGs.²⁴

UNFCCC and UNDESA, the lead agencies for the climate and SDG process, are aiming to strengthen the synergies between the Paris Agreement and the 2030 Agenda for Sustainable Development.²⁵ In a conference in 2019, they recommended an alignment and unification of reporting processes and mechanisms. Furthermore, they encourage the creation of an integrated platform, though no follow-up action has been taken so far.

Another activity to link NDC and SDG processes, has been carried out by the World Resources Institute (WRI), who established a searchable NDC-SDG linkage database as part of their online Climate Watch platform.²⁶ The challenge here again is the lack of an agreed set of objectives and indicators related to transport.

More recently, the discussion around climate justice has gained momentum and more thinking and research has been carried out to look into the links between SDG and NDC reporting.²⁷ From a transport perspective, recent data collection efforts by SUM4ALL and SLOCAT are trying to focus on the existing SDG and NDC required data.

The most detailed report on NDC and SDG synergies for transport has been recently published by the Islamic Development Bank (IsDB) and the SLOCAT Partnership.²⁸ SLOCAT analysed potential synergies between the NDCs and SDGs in six IsDB member countries. The study found, that between the initial Intended National Determined Contributions (INDC) submission in 2015 and the VNR in 2016 until 2019 these processes were not clearly linked. The study recommended an increase in coordination between the different ministries as one of the pre-conditions for a future common reporting methodology. The study elaborates guidance to overcome some of the current challenges of a common reporting activity based on the divergences of the processes between NDC and VNR (see Box 2 below). While there are substantial differences in the design of the processes, with the upcoming transparency reporting more opportunities arise to collect,

²⁴ <https://www.kenyamarkets.org/wp-content/uploads/2019/02/NCCAP-2018-2022-Online-.pdf> (p. 46ff)

²⁵ https://sustainabledevelopment.un.org/content/documents/25256WEB_version.pdf





²⁶ <https://www.climatewatchdata.org/ndcs-sdg>

²⁷ <https://klimalog.die-gdi.de/ndc-sdg/>

²⁸ <https://www.isdb.org/sites/default/files/media/documents/2020-06/12%20Transport%20Climate%20Action%20and%20Sustainable%20Development-%20Synergies%20Across%20NDCs%20and%20VNRs%20in%20IsDB%20Member%20Countries.pdf>

manage and report on the commonalities. For example, VNR and transparency reporting processes are both asking for targets, co-benefits (SDGs, climate) and policies.

Box 2: NDC vs. VNR

	Approach: NDCs are a target-setting mechanism (i.e. ex ante approach) which prioritise political consensus over science-based targets, while VNRs are a reporting mechanism (i.e. ex post approach), marked by limited preparation time, though supported by a more formal process than NDCs. Thus, the two mechanisms diverge fundamentally in terms of approach and timeframe under consideration.
	Coverage: There is a divergence of quantitative data covered in both target setting (for NDCs) and progress reporting (for VNRs). NDCs report on quantified transport emission data (in most cases), along with qualitative information on transport adaptation (describing the need for more resilient transport infrastructure). VNRs report on few aspects of quantitative transport data (e.g. road traffic fatalities, passenger transport volume) if it is included at all.
	Acceptance: NDCs are the product of a binding process accepted by more than 190 signatories, while VNRs are by definition a voluntary process. During the first quadrennial cycle of the HLPF from 2016 to 2019, a subset of 40 to 60 countries signatories to the SDGs submitted VNRs in each of these years. ¹⁴
	Implementation: VNRs report on what has been implemented in recent years, while NDCs set targets and look towards what will be implemented in the future. VNRs share experience of countries in the success, challenges and lessons learned from the SDG implementation; but there is little availability of information on implementation of NDCs to date, which are slated to formally take effect in 2020.

Source: [IsDB/SLOCAT 2020](#)²⁹

The SLOCAT study presents detailed guidance on how to address the different challenges and move towards an integrated process and reporting platform. From a reporting and procedural perspective, the following elements are seen as most relevant:

- Vision and Targets: Create quantified emission reduction targets, improve national data collection and create one common platform for NDC and SDG.
- Policy Coherence: Consider mitigation and adaptation as part of the future strategy.
- Institutional Framework: Increase collaboration between the different responsible ministries.
- Member countries should make use of regional events like the Regional Climate Week and the Regional Forum for Sustainable Development to share strategies and refine their strategies based on feedback from member countries and observed good practice.
- A multilateral development bank could support such data platform initiatives.

Further options to use existing regional events and processes with a transport focus to align SDGs and NDCs will be discussed in chapter 5 with the example of the Environmentally Sustainable Transport (EST) Forum hosted annually by the United National Centre for Regional Development (UNCRD).

²⁹ https://slocat.net/wp-content/uploads/2020/04/SLOCAT-ISDB_2020_Transport-Climate-Action-Sustainable-Development.pdf

4. Existing transport reporting mechanisms

National governments, as official parties to both the Paris Agreement and the 2030 Agenda for Sustainable Development, are the key stakeholders responsible for submitting their information aligned with the reporting mechanisms on climate change and sustainable development. However, as the former chapters showed, there is no specific legal requirement to report on the sectoral level in the Paris Agreement nor the 2030 Agenda, thus there is a gap to measure and report on transport activities. At the same time, there is a wide range of agencies and institutions already collecting data for different purposes.

To create a high level of synergy, any future reporting mechanism should build upon existing reporting and data collection activities and be linked to existing policy processes on transport. Therefore, in this chapter there is a brief description of a selection of existing activities of agencies and institutions which are handling transport relevant data in the context of climate and sustainable development goals. These will be split into:

- Global data and policy collection
- Regional data and policy collection
- National data and policy collection
- Local data and policy collection
- Relevant data and policy collection outside the transport sector
- Private sector data

4.1 Global data and policy collection

While there is no multilateral mandate on a global scale to collect comprehensive data on transport, there are global initiatives, non-governmental organisations, development banks and international agencies who collect and report regularly on the development in the sector. Some of the most relevant are listed below:

- **Sustainable Mobility for ALL** (SUM4ALL) published in 2017 the first **Global Mobility Report** aiming to create a global data base linked to the SDG and the Paris Agreement, but so far this has not been updated.³⁰
- The International Transport Forum (**ITF**) **Transport Outlook** provides an overview of recent trends and near-term prospects for the transport sector at a global level, as well as long-term projections for transport demand to 2050. The analysis covers freight (maritime, air, surface) and passenger transport (car, rail and air) as well as related CO₂ emissions, under different policy scenarios.
- In addition to the long-term collection of energy related data, the **IEA** also collected more detailed **data sets** around electric vehicles. This includes an overview of national policies.³¹

³⁰ <https://www.sum4all.org/publications/global-mobility-report-2017>

³¹ <https://www.iea.org/reports/global-ev-outlook-2020>

- **REN21** is carrying out an annual **Global Status Report (GSR) on Renewable Energy** with a chapter on transport.
- The **SLOCAT Partnership** published its first **Transport and Climate Change Global Status Report (TCC-GSR)** in 2018 collecting a wide range of national transport-related data in the context of climate and SDG. The 2020 TCC-GSR, due to be officially launched in early 2021, will contain information on Asia and extensive data tables as well as fact sheets for selected countries.
- Other transport data reporting and data sets exist at a global level, but with major gaps in Lower Income Countries (for example, International Road Federation (IRF), International Road Union (IRU))

4.2 Regional data and policy collection

On the regional level there are strong examples of common data collection activities as described below:

- The **European Environmental Agency (EEA)** collects, through the national statistical offices of its member states, annual transport and environmental data. The data set is publicly available and the report (**TERM – Transport and Environmental Reporting Mechanism**) is presented every year to the European Parliament.
- The **United Nations Economic Commission for Europe (UNECE)** established a Working Party on Transport Statistics, which is an intergovernmental body dealing with the development of appropriate methodologies and terminology for the harmonization of statistics as well as the collection of data from its member states in its own data base including an **SDG dashboard**. UNECE has also published a range of analytical papers on the SDGs related to transport.^{32,33}
- For the Asian region the **United Nations Centre for Regional Development (UNCRD)** in 2007 established the **Environmentally Sustainable Transport (EST) Forum**. At the 2010 EST Forum, EST member countries signed the **Bangkok Declaration**, where national governments voluntarily agreed to annually report on the policies of the declaration.³⁴ There is a plan to strengthen the future regional reporting.
- Another Asian reporting effort is carried out under the **ASEAN Kuala Lumpur Strategic Plan 2016 – 2025**. In 2019, an expert group published a guidance document to harmonise indicators on energy and GHG emissions in the transport sector. The use of the indicators is voluntary.³⁵

³² https://www.unece.org/trans/main/wp6/wp6_about.html

³³ https://www.unece.org/trans/main/wp6/sdg_papers.html

³⁴ https://www.uncrd.or.jp/content/documents/201008_Bangkok-Declaration.pdf

³⁵ <https://asean.org/storage/2019/03/Sustainable-Transport-Indicators-ASEAN-Final.pdf>

4.3 National data and policy collection

The SDGs on a national level are collected and reported by the National Statistical Offices and the NDC submission has to be communicated by the countries (Article 4, paragraph 12 Paris Agreement) without any further definition, which national institution is in charge. In most cases, NDCs and related Transparency Reports are compiled by environment ministries, often increasingly requesting sectoral data from line ministries, such as transport. This data includes both sectoral greenhouse gas emissions and updates on the implementation of sectoral mitigation actions. For transport, studies show that the collection of transport data on a national level is often dispersed between different ministries or agencies often with no coordination (Sieber et al, 2020). In addition, data on annual mileages and active vehicle fleet data are lacking in many developing countries.

At a national level the Asian Transport Outlook (ATO) is, according to the ADB Vice President Bambang Susantono, aiming to “strengthen the knowledge base on transport in the Asia-Pacific region in a manner that emphasizes and helps to create an institutionalized process for data and information collection, analysis and documentation”.³⁶ The database will support national governments and international organisations as well as feed into regional initiatives contributing to the enabling of the SDG and the Paris Agreement. The data set, collected on a national level, will cover 49 countries which fall within the remit of ADB, plus Iran and Russia. The ATO is planning to have an initial shareable database by February 2021. The database will cover all transport modes as well as a set of policy indicators.

4.4 Local data and policy collection

While there is wide range of data collection activities for urban areas, for example UN-HABITAT in partnership with institutions like UNEP, UITP and others are aiming to collect transport data for 1000 cities as part of their role as custodian agency of SDG 11.2.1, there is no current reporting standard linking city to national to global reporting on a sectoral level. On a regional level the CAF Development Bank for Latin America created an urban mobility observatory for Latin America, but lacked any further integration to any policy processes. Similar attempts have been created by the European Commission developing a set of Sustainable Urban Mobility Indicators (SUMI)³⁷ or UNESCAP with the Sustainable Urban Transport Index (SUTI).³⁸

4.5 Relevant data and policy collection outside transport

Furthermore, other international agencies like the International Labour Organisation (ILO) and the World Health Organisation (WHO) collect global data on specific transport related subjects related to their mandate. ILO collects data on labour in the transport sector as well as a specific

³⁶ <https://www.adb.org/news/speeches/future-directions-transport-developing-asia-bambang-susantono>

³⁷ https://ec.europa.eu/transport/themes/urban/urban_mobility/sumi_en

³⁸ <https://www.unescap.org/announcement/sustainable-urban-transport-index-suti>

focus on SDG 8³⁹, while WHO is the custodian agency for SDG targets 3.6 (road safety) and 3.9 (air pollution).

4.6 Private sector data

The private sector is a key player when it comes to achieving the Paris Agreement and the SDGs. While individual businesses are not part of the international agreement processes and only represented through their dedicated associations like the World Business Council for Sustainable Development (WBCSD), there are growing initiatives to align business sustainability reporting to the SDG process. The most prominent are the following initiatives: a) GRI Sustainability Reporting Standards (Global Reporting Initiative Standards); and b) Communication on Progress (COP) on the UN Global Compact Ten Principles and the SDGs of which there are more than 9,500 participants. One of the SDG targets (12.6) cites the benefits of sustainability reporting and encourages companies to integrate sustainability information in their reporting cycles. Currently, 92% of the world's 250 largest businesses report on sustainability measures and 74% of these use GRI guidance/ standards to do so. All of the more than 9,500 UN Global Compact participants, the majority of which are small and medium-sized enterprises (SMEs), are required to report annually on their sustainability impacts.

Both initiatives are still in process to create a harmonized indicator set and methodology for companies to report on their contributions to the SDGs.⁴⁰

While business associations like WBCSD have specific working groups on transport and some harmonization efforts for a specific indicator and specific part of the industry exist (e.g. carbon foot printing for European logistic companies or the Green Freight Label in Asia)^{41,42}, there has not been any overarching global transport business related initiative to harmonize their sectoral activities nor do the current reports look into specific sectors beyond the specific 169 SDG indicators.

4.7 Key observations

The review of existing data collection and policy reviews by different stakeholders shows the following:

- The current rules for national climate reporting will allow policy summary reporting on a sectoral level, including transport.
- The current top-down practice to fulfill the IPCC data collection requirements does not provide a full picture of the transport activities and requires improvement.

³⁹ <https://ilostat.ilo.org/topics/sdg/>

⁴⁰ <https://www.unglobalcompact.org/library/5736>

⁴¹ [https://www.dslv.org/dslv/web.nsf/gfx/8F102DF8C3E4A2F141257BB7007779CB/\\$file/DSLVL-Leitfaden%20Berechnung%20von%20THG-Emissionen%20Stand%2003-2013.pdf](https://www.dslv.org/dslv/web.nsf/gfx/8F102DF8C3E4A2F141257BB7007779CB/$file/DSLVL-Leitfaden%20Berechnung%20von%20THG-Emissionen%20Stand%2003-2013.pdf)

⁴² <https://www.greenfreightasia.org/scopes>

- The official SDG data collection process does not cover all major transport impacts and requires adjustment extending the current collection of indicators as well as improving the existing data collection and reporting.
- There is a gap in terms of activity on adaptation related to transport as well as the efforts to report the existing initiatives.
- Although there are some global data collection activities, there is no standardisation and often country data from Lower Income Countries (LIC) are missing.
- There is a lack of standardisation at the global level with some exceptions within global agencies (WHO, ILO).
- Regional standardisation and established processes are evident as good practice in Europe (EEA, UNECE).
- Established regional policy processes (e.g. EST Forum) are a potential hub for regional data collection.
- Private sector reporting efforts on the SDGs are growing, but there is no specific related initiative to focus on the transport sector nor to harmonise the sector-relevant data in the sustainable business reporting.

5. Towards a long-term vision: An Integrated Transport Climate & SDG Report

This paper has shown the limitations of current international agreement reporting on transport due to the lack of specific transport-related indicators as part of the SDGs and no specific sectoral recognition in the reporting requirements as well as the lack of integration of the two international processes. On the positive side, the existing transport data collection processes create a potential to move towards standardisation of transport data and establishing regional processes like we have seen in the examples of Europe (UNECE and EEA). The latest initiative by the Asian Development Bank for an Asian Transport Outlook and the plans for a new declaration on Environmental Sustainable Transport (EST) (see Box 3) is a clear indication that there is interest and that there are efforts to better integrate the transport data collection on a national and regional level.

A better integrated, transparent and standardised reporting framework for transport is a key element needed to improve national, regional and global decision-making. This would also empower countries to better understand their opportunities and impacts and to benchmark and exchange good practices on policies. While not all elements are globally relevant and any future system and policy agreement should have a certain flexibility, a vision for integrated transport reporting for climate and SDGs can help to lay the foundation for increased action based on existing knowledge. UN initiatives like the Big Data UN Global Working Group, who are working on ideas on how to harmonise SDG monitoring through big data, can create future ideas for a sectoral monitoring based on harmonised indicators and data collection.⁴³

In this last chapter a vision for a future of integrated reporting will be outlined. It will include additional elements like including businesses and ideas to integrate current COVID-19 actions. Such a vision could be built around five core elements as described below and applied to the EST Forum (see Box 3).

Element 1: Alignment on SDG/Climate Reporting

A common national reporting framework on the Paris Agreement on climate change and the SDG process as recommended by UNFCCC and UNDESA could **align the data collection and policy reporting in one platform**. To enable such a reporting, better national coordination and capacity are needed (see Element 5). The minimum data requirement to fulfil the international agreement could consist of **the current five direct SDG indicators** and the **current CO₂ emissions** from the transport sector. To better build up the current activities within the transport sector, the **bottom-up data requirement from the IPCC** should be used. It is vital that data from all transport modes are collected to allow an assessment of the impact of different policy interventions. Part of such a report should include the **targets for each of the SDG indicators**, meeting the time frame of the SDG (country specific VNR) and **NDC (2025, 2030, etc.)**. A **sectoral target** would help to assess the policy impacts and the level of ambition of each country. The third part, as required by the Katowice rulebook, should be the listing of the **mitigation**

⁴³ <https://unstats.un.org/bigdata/>

policies to reduce the CO₂ emissions from the transport sector. An **additional matrix on the impact** of mitigation policies on the different SDGs would be valuable to enable the **co-benefits** of the different actions to be available in a **structured and harmonised manner**. Currently, the Katowice rulebook includes co-benefits as part of the recommended reporting scheme, though this is left to the countries as to how to share this information. Specific co-benefits could be listed in the table to align reporting.

Based on this initial version of the reporting framework, **the indirect effects of the SDGs** (see chapter 3) and **policy measures on adaptation** could be added and a common national data platform created. The current plan for the **Asian Transport Outlook** is an example of such a data set, which at the same time allows building a regional database on national information to enable benchmarking and sharing good policy practice.

Element 2: Vertical Integration

One major argument for harmonisation and standardisation of reporting processes is to make the data and information comparable among different levels of government. In terms of climate and SDG it is of importance to understand if national governments meet their own set targets, but also if the global community is taking sufficient action together to meet the global targets. Therefore, an initial alignment on national level should also allow regional and global data collection and analysis, making most of the synergies.

National-Regional

The examples of the European Environmental Agency and UNECE showcase regional platforms with a specific transport focus. Both **platforms** created a **common data set** from its member countries and a **harmonised methodology**. EEA creates **annual reports** based on the updated data from its members. It also showcases specific challenges each year in the reports, which allow reflection on **good practice policies** in a specific area. They are used for **regional benchmarking** on the impacts of the transport sector. To align the suggested national reporting structure on a regional level, agreement on a common methodology will be crucial to ensure comparability of transport activity data. **Integrated reporting** on SDG-related targets as well as emission reduction targets **could simplify the reporting process**.

Other existing regional platforms, like the **Asian EST Forum**, have already established country reporting as part of its annual meeting. The current UNCRD plans are to revise the reporting and to align it with the international agreements by 2021. Many of the lessons learned from the European example can be used to improve the process. In addition, a synthesis report, summarising the implementation and progress of EST Forum Member goals on a regional level could add value to the national reports, showcasing the state of implementation in the region. The Asian Transport Outlook initiative by the ADB as well as the ASEAN guidelines for energy and GHG emissions can be good starting points for standardised and harmonised national reporting, which could be aggregated on a regional level for the UNCRD member states.

A good practice example of an integrated report on data and policy in the energy sector is the ECOWAS report on SDG 7. The report includes energy related information from all other SDGs

as well as collects related **policies**. This includes SDG 13 and 14 and was therefore linked to the climate reporting.⁴⁴ The work of ECOWAS also included an NDC tracking on energy.

The establishment of more regional platforms on transport anchored within a regionally established policy process (like EEA reporting to the European Parliament) could showcase the practicability and usefulness of integrated transport data collection and reporting to establish, in the long-term, a process on the global scale. It would enable **regional dialogues on common challenges** as well as identify opportunities for **common regional policy action**. For example, the European data are used to assess and inform policies on fuel emission standards.

National-(Regional)-Global

Due to the lack of sector-specific recognition of the transport sector in the international agreements, a formal requirement on a standardised and harmonised transport reporting process on data, policies and targets, it will take a long time, if ever to be part of the official process. As for the SDGs some improvements could be made through the **addition of indicators** through the IAEG-SDGs which could be suggested for the 2025 review. A wider change to include transport in a separate SDG would be more realistic after 2030. Within the NDC reporting, the rulebook will be revised in 2025.

Therefore, **globally consistent reporting** on the transport sector might for the near future lie in the hands of other international organisations. Such a comprehensive global reporting framework could fill the gap of a sole global central database for transport related data. To be successful, a global reporting framework and its data requirements would need to be **integrated into national statistics systems** as much as possible. This would have the advantage that countries would agree on one data collection and reporting framework, which could streamline reporting and make it more efficient. Any of the institutions and initiatives listed (ITF, IRF, SUM4ALL, IEA, SLOCAT) might have the potential to widen their specific mandate if supported by national governments. Another option could be **regular special reporting** under UNDESA. As there is a plan for running the 2nd UN Global Sustainable Transport Conference in 2021, it might be an option to reflect on the idea of a global platform and common reporting framework on transport, climate and sustainable development. This could create a foundation for a future **Global report on transport, climate and the SDGs**. The key elements could consist of the elements described under national and regional reporting.

Urban-National-Regional-Global

Another challenge is the consistency of urban and national data. While there are a lot of city-related data collection initiatives, it would require a separate study to look into the details and feasibility of vertical integration of urban and national transport data. One aspect is to strengthen national and city level statistical systems on transport and improve data collection and maintenance processes. Another angle could be the current data collection by UN-HABITAT as part of the role as custodian agency for SDG 11.2 as well as their lead role in the follow-up process to the New Urban Agenda.

⁴⁴ <https://www.unescwa.org/sites/www.unescwa.org/files/publications/files/energy-progress-report-arab-region-english.pdf>

Element 3: Alignment with other sectors

Many of the transport-related challenges are outside the sector. For example, without broad decarbonisation of the **electricity sector**, electric vehicles will not be able to become zero carbon. And without an intelligent **land-use planning**, the need to travel will increase and will have negative impacts on air pollution, road fatalities etc. Therefore, a detailed analysis should investigate current efforts in other sectors and examine relevant information and data. The examples in the transport data reporting chapter from the **employment sector** and the **renewable energy** are two major ones to consider.

Element 4: From ad-hoc to long-term reporting on disaster risk management

As COVID-19 has had a substantial impact on the use of the transport system, many stakeholders in the transport sector have called for action to ensure that **green recovery** programmes are supporting a transformation towards sustainable and resilient mobility systems. A policy collection created by the Japanese research institution, IGES, for the UNFCCC created such a database (Platform for Design 2020) to inform countries on national action for a sustainable and resilient recovery.⁴⁵ Transport is very prominently featured in many countries green recovery initiatives, though it is currently lacking a wider sectoral analysis. Such a platform could be a starting point to better track the actions and impacts.

A policy collection database might also give more attention to the **Sendai Framework on Disaster and Risk Management**. A detailed investigation into how transport could be linked is a topic for future research.

Element 5: Capacity building and institutionalisation on a national level

To enable future integrated transport reporting, the national level is key to **harmonise and standardise data collection procedures and required indicators**. There is a divergence between countries as to how data is collected and managed. A common reporting on NDCs and SDGs for transport based on a regionally created data set could encourage **reforms on national level**. This will require additional support to train and provide additional statistical officers in national statistical offices as well as in transport ministries and agencies.

While there are supporting and capacity building initiatives to strengthen the SDG report by UNDESA, they do not support any sectoral efforts. A **common reporting framework** could also use **synergies for capacity building**. Any future effort needs the buy-in from the country level and the willingness to enhance its efforts. Initiatives like the ADB ATO could create impetus by linking the reporting to identifying future needs for investments.

⁴⁵ <https://platform2020redesign.org/>

Box 3: The Environmental Sustainable Transport Forum: Potential for a future regional integrated reporting system

In 2010, 45 member countries of the UNCRD signed a 10-page declaration agreeing on Sustainable Transport Goals for 2010 to 2020 to showcase their commitment towards sustainable transport in Asia. While the declaration already acknowledged the Agenda 21 on sustainable development, it was before the Paris Agreement on Climate Change and the Agenda 2030 on Sustainable Development was adopted. The declaration asked the signatory countries to voluntarily report on 20 agreed goals, which were aligned with the Avoid-Shift-Improve Paradigm (ASI). During annual meetings the countries presented and shared their progress against the goals.

A renewal of the declaration could build on the described five elements for action towards an integrated transport SDG and climate reporting. There is an opportunity to enhance the efforts by

- Creating a standardised and harmonised indicator set for the national level
- Establishing national targets for climate and SDGs and collect them on a regional level
- Building on existing established guidance for indicators in the region (e.g. ASEAN guidance on energy and GHG emissions)
- Creating a common reporting template based on the transparency reporting requirement and the VNR reporting guidance
- Using the annual EST Forum to reflect on annual progress against the reporting framework and national targets and share good policy practices
- Identifying common policy interest to create regional policy initiatives (e.g. regional fuel economy standards)
- Inviting other UN agencies like WHO and ILO to participate to widen the reporting framework to other sectors like health and employment
- Exploring further reporting opportunities under the Sendai Framework on disaster risk management
- Starting a dialogue with the private sector to explore opportunities to align business with national reporting
- Creating a capacity building initiative to strengthen national institutions to report under the future reporting framework.

As a federally owned enterprise, GIZ supports the German Government in achieving its objectives in the field of international cooperation for sustainable development.

Published by:

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 32+36
53113 Bonn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15
E info@giz.de
I www.giz.de

Author:

Holger Dalkmann (Sustain2030)

Editors:

Urda Eichhorst (GIZ), Dennis Knese (GIZ)


URL links:

This publication contains links to external websites. Responsibility for the content of the listed external sites always lies with their respective publishers. When the links to these sites were first posted, GIZ checked the third-party content to establish whether it could give rise to civil or criminal liability. However, the constant review of the links to external sites cannot reasonably be expected without concrete indication of a violation of rights. If GIZ itself becomes aware or is notified by a third party that an external site it has provided a link to gives rise to civil or criminal liability, it will remove the link to this site immediately. GIZ expressly dissociates itself from such content.

Printing and distribution:

GIZ Bonn/Eschborn, Germany

Bonn 2020



Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered Offices
Bonn and Eschborn

Friedrich-Ebert-Allee 36+40
53113 Bonn, Germany

T +49 228 44 60-0
F +49 228 44 60-17 66

E info@giz.de
I www.giz.de