Human rights and sustainable developmentbenefits of a human rights-based approach to data

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Human Rights and Sustainable Development
Benefits of a Human Rights-Based Approach to Data

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Abstract

Collecting the data necessary for achieving the 2030 Agenda and the 17 SDGs outlined therein poses an unprecedented challenge. Furthermore, data collection exercises run the risk of not being representative of the entire population, omitting important variables, or laying the groundwork for future human rights violations. To adress these challenges the OHCHR published a guidance note on how to collect data according to a human rights-based approach to data (HRBAD). Such a HRBAD includes six principles: participation, disaggregation, self-identification, transparency, privacy and accountability. To complement said guidance note, this thesis compiles a catalogue of best practices from six different NSOs that illustrates how data can be collected according to a HRBAD. In a second step the catalogue was used to evaluate whether these practices deliver on the goals of a HRBAD, safeguarding human rights and ensuring progress on the 2030 Agenda, the relative importance of different best practices, and how the principles interact with each other. Given sufficient resources and a minimum level of political will, the identified best practices did indeed promote the 2030 Agenda and safeguarded human rights. The relative importance significantly varied between different pracices with the ones affecting all aspects of an NSO, like codes of practice or regulations, being the most important ones. The identified best practices highlighted the importance of transparency to enable meaningful accountability and the key role of participation, transparency, and accountability for encouraging the use of data by actors outside the conventional statistical system. No direct trade-off between disaggregation and transparency versus privacy could be observed. The compiled catalogue of best practices can serve as a illustrative list for NSOs aiming to implement a HRBAD. The insights on the trade-offs and synergies between and the relative importance of different best practices further facilitate the implementation.

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List of Abbreviations

CBS	Centraal Bureau voor de Statistiek
CSO	Civil Society Organisation
DANE	Departamento Administrativo Nacional de Estadístico
DOS	(United Nations) Department of Operational Support
GIF	Global Indicators Framework
HRBAD	Human Rights-Based Approach to Data
HRC	Human Rights Council
HRIDU	Human Rights Indicators and Data Unit
IAEG-SDGs	Inter-agency and Expert Group on SDG Indicators
INEI	Instituto Nacional de Estadística e Informática
KNBS	Kenya National Bureau of Statistics
LDC	Least Developed Country
MoU	Memorandum of Understanding
NBS	National Bureau of Statistics (of the Republic of Moldova)
NHRI	National Human Rights Institution
NSO	National Statistics Office
NSS	National Statistical System
ODA	Official Development Assistance
OHCHR	Office of the High Commissioner for Human Rights
ONS	Office for National Statistics
OWG	Open Working Group
PCBS	Palestinian Central Bureau of Statistics
SAI	Supreme Audit Institution
SDG	Sustainable Development Goal
SIDS	Small Island Developing State
SP	Special Procedures
UN	United Nations
UPR	Universal Periodic Review

Part 1

Internship Description

The thesis is split into two parts. This first part describes the institutional and organisational setting of the internship at the HRIDU of the United Nations OHCHR. It elaborates on the details of the tasks done within the scope of the internship and contextualises them in the SDGs framework of the 2030 Agenda for Sustainable Development.

1.1 OHCHR and HRIDU

The OHCHR is part of the UN Secretariat. It collaborates with governments and speaks out objectively in the face of human rights violations. The OHCHR was created in 1997 and leads global human rights efforts. Besides its headquarter in Geneva, the OHCHR has an additional office in New York as well as various field presences. In 2020 the OHCHR had a budget of US$ 340.9M, made up of US$ 116.8M in regular budgetary funds and US$ 224.3M in voluntary contributions (OHCHR, 2020). (OHCHR, 2016)

More specifically, the OHCHR sets human rights standards through the UN human rights system, conducts monitoring and research, implements appropriate measures, and mainstreams human rights. Through these activities it promotes and protects all human rights, helps empowering people, assists governments, and adds a human rights perspective into all UN programmes.

The UN human rights system is composed of the ten treaty- or charter-based bodies. The charter-based bodies include the HRC and the SP and its complaint procedures. The HRC is an intergovernmental body that is serviced by OHCHR. It works to prevent and address human rights violations and responds to emergencies. It is an international forum for human rights dialogue, recommends developments in human rights law, and provides recommendations to countries within the framework of the UPR.

The 55 SP include 41 thematic and 14 country specific mandates. They are independent, unpaid experts appointed by, and reporting to the HRC. They monitor specific issues or human rights situations, research issues of concern, and work with the media to raise awareness. The SP conduct country visits, receive and consider direct complaints, enter dialogues with governments to bring allegations to their attention, and respond to emergencies.

The complaint procedures enable actors to bring human rights violations to the attention of the international arena. Currently there are three main procedures: individual communications, state-to-state complaints, and inquiries. Each kind of procedure includes a variety of committees that can be addressed or called upon. (OHCHR, 2021b)

The treaty bodies are committees of independent experts that monitor the compliance of state parties with their treaty obligations. They examine reports from said parties, make recommendations, issue general comments, and consider individual complaints.

The OHCHR implements its mandate through country engagement, field presences that leverage the office's work in a given context, advisory services, technical cooperation programmes, and education. It conducts research on human rights issues in accordance with resolutions of policy-making bodies. Furthermore it supports the human rights bodies in standard setting activities with policy analysis, advice, guidance, and developing responses to human rights challenges. Furthermore, the OHCHR partners with various institutions such as governments, law enforcement, NHRIs, CSOs, media, academic institutions, or UN agencies to strengthen human rights.

Within this context the HRIDU works on indicators related to measuring human rights as well as the SDGs. It develops methodologies for measuring human rights indicators and guidelines for the creation of coherent indicator frameworks that adequately measure the overall human rights situation in a given context. It fulfils OHCHR's responsibility as custodian agency of four SDG indicators. This includes promoting data collection related to said indicators to increase data availability, verifying the corresponding data with the countries, and reporting to relevant UN agencies. Furthermore, it also compiles data for a list of indicators on its own and publishes them on the website of the OHCHR to the public.

Lastly, the HRIDU provides technical assistance to countries regarding the measurement of human rights indicators as well as the composition of human right indicator frameworks by organising workshops and facilitating MoUs on data exchange and collaboration between statistical and human rights organisations in a country.

1.2 Tasks During the Internship

The internship consisted of three main tasks:

- Driving the development of a web scraper to collect and pre-analyse data on the SDG indicators 16.1.2 "Conflict-related deaths per 100,000 population, by sex, age and cause" and 16.10.1 "Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months". (United Nations, 2015)
- Supporting the work related to the reporting on the SDG indicators the OHCHR is the custodian agency of.
- Supporting the development of RIGHTSTAT, an interactive platform to visualize various human rights indicators.

Beyond these, various smaller tasks, that will not be further elaborated, were part of the internship:

- Supporting the organisation of workshops for technical assistance to countries.
- Supporting the work of the Praia Group on Governance Statistics.
- Supporting the contextualization of the discrimination questionnaire of the SDG 16 initiative.
- Underlying the human right indicator tables with links to relevant data.
- Conducting various minor reviews.

The goal of the web scraper was to scan online newspaper articles for information relevant to the human rights indicators mentioned above, extracting the relevant information, and preparing it in a way that is easily understandable to the Human Rights Officers working with the collected informationt. The work on this task involved designing a project timeline, striking up suitable collaborations, and implementing the web scraper together with other employees of OHCHR. The web scraper was implemented in python using a mix of machine learning and natural language processing.

The work related to the SDG reporting mainly pertained to indicator 10.3.1/16.b.1 "Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law" but also included work on the other three indicators the OHCHR is custodian of. The work consisted of reviewing the data received from countries, calculating the figures, and designing the charts needed for the Secretary General's Report (United Nations, 2021a) as well as the Sustainable Development Report 2021 (United Nations, 2021c).

The work on RIGHTSTAT included periodically testing the frontend of the RIGHTSTAT dashboard, providing corresponding feedback to the development team at the DOS, contextualizing the discussions with the DOS for the HRIDU team based on technical expertise, and supporting HRIDU in other matters related to interactive indicator dashboards.

1.3 Sustainability Context of the Internship

Through its strong inherent focus on SDG 16 "Peace, justice and strong institutions" all work of OHCHR is closely linked to the 2030 Agenda (United Nations, 2015). The work on the web scraper to facilitate data collection regarding the SDG indicators 16.1.2 and 16.10.1, on the reporting on all four SDG indicators the OHCHR is custodian of, and the development of the RIGHTSTAT dashboard directly contributed to the progression of SDG 16 by increasing the monitoring capacity of OHCHR. Due to the enabling and cross-cutting (United Nations, 2019) characteristics of SDG 16, the work done also had significant positive impacts on other SDGs.

Measuring the development of the SDGs enables policy-makers to evaluate the success of their policies and compare their countries to other contexts. Data also allows for the identification of policy gaps and priority areas. As a result having broader and more precise information available helps policy-makers draft measures that are better at solving development challenges.

Part 2

Human Rights and Sustainable Development Benefits of a HRBAD

The following second academic part provides a scientific analysis of the human rights and sustainable development benefits a HRBAD, co-developed by HRIDU, can bring to data collection practices.

2.1 Context

With the 2030 Agenda for Sustainable Development the global community outlined a common path of development. The agenda encompasses 17 goals, of which each has several targets (United Nations, 2015). To measure the global progress towards the 2030 Agenda, the GIF was adopted (United Nations, 2017). The GIF totals 232 indicators, one or more for each of the 169 targets of the 2030 Agenda.

While the 2030 Agenda outlines development goals for all countries for the first time, the capacities required to measure progress towards the 232 indicators with sufficient disaggregation and quality pose an "unprecedented statistical challenge" (MacFeely, 2020, p. 362). These challenges are particularly difficult for countries that do not yet have advanced statistical systems. (Schwachula, 2021; MacFeely, 2020)

The challenges encompass i) unclear definitions, ii) lack of priority within complex targets, iii) lack of national relevance of some indicators, iv) no clear solution for dealing with changes in the composition of country groups (e.g. LDCs, SIDS, etc.), v) disputes over whether the data collection should be administered on a national, regional, or global level, and vi) how to reach a level of data granularity that allows for the prioritization of measuring the poorest and most vulnerable first and hereby adhering to the motto of "leaving no one behind'. (MacFeely, 2020)

Beyond these challenges specific to the 2030 Agenda, there are also more general ones that apply to other statistics as well: i) lack of awareness of the benefits of statistical information among policymakers, ii) lack of funding, iii) maintaining the privacy of the data providers, and iv) the lingering danger of data misuse. (MacFeely, 2020; OHCHR, 2012, 2018)

2.2 Issue Identification

In the context of the 2030 Agenda, the pressure on the countries and their statistical systems to deliver the data required to assess their progress is high. Similar to the integrated nature of the SDGs, the process of data collection also consists of trade-offs and synergies. For example, there is a growing body of literature that discusses

the use of big data to measure SDG indicators as it brings many benefits regarding scalability and granularity. However, the use of big data reportedly faces issues regarding privacy, transparency, and exacerbating the digital divide. (MacFeely, 2020)

This raises the question of how countries can collect the data necessary to report on their progress towards the 2030 Agenda without endangering the rights of their population through their statistical activities. To this end, the OHCHR (2018) published a guidance note on data collection and disaggregation. Following a human rights-based approach to data, it outlines six principles for statistics: participation, disaggregation, self-identification, transparency, privacy, and accountability.

While the guidance note provides an encompassing theoretical framework, it provides no examples or best practices. Similarly, no list or compilation of such best practices can be found in academic literature. Given the importance of sharing knowledge to achieve the 2030 Agenda, an illustrative list of best practices could help countries meet the challenges of collecting data in a way that maintains the human rights of their population (Atkisson, 2015).

2.3 Research Question

Given the issue outlined above – a lack of best practices for collecting data on the SDG indicators following a human rights-based approach to data – the following general research question can be derived:
What are the best practices to ensure data collection activities for measuring progress on the SDG indicators do not violate human rights and promote the goals of the 2030 Agenda?

2.4 State of the Art

The following section analyses the current academic literature on the threats of ignoring a given principle of a HRBAD, illustrates possible measures to prevent them, and presents a selection of existing implementations.

2.4.1 Participation

Without meaningful participation options for all people, data collectors risk excluding the viewpoints of marginalized groups that are often already exposed to a higher risk of being left behind. Therefore, scholars recommend including relevant population groups in all steps of data collection processes related to SDG monitoring. (Husch, Saner, Yiu, & Zeitz, 2014; OHCHR, 2018; Saner, Yiu, & Nguyen, 2020; Transparency International, 2018)

There is a variety of ways in which the public can be incorporated into decisions processes. Fung (2006) categorizes them based on three dimensions: who participates, the way participants communicate with each other and make collective decisions, and how those discussions are connected to policy or public action.

Participation can also be categorized by different levels as described in the ladder of citizen participation by Arnstein (1969). It ranges from manipulation, where citizens are put into rubberstamp committees where they are "educated" to support a program, to citizen control where a community is in full control of a program or institution.

Participatory processes can also be analysed based on a framework of social efficiency (whether all affected stakeholders are included in an equitable manner), substantial efficiency (whether participation impacts a given situation), and procedural efficiency (the effects of participation on decision making processes). (Bréthaut, 2016)

While the use of participation can facilitate the implementation of sustainability policies through securing support from the population and adjusting the policies to heterogeneities within a community, they can also

make it more difficult since participants could fear the additional costs. Furthermore, participatory democracy can provide a forum through which citizens can reach the consensus needed to implement sustainability policies aiming at reducing negative externalities between communities. (Portney & Berry, 2010)

A case study on indicators for sustainable tourism in the arctic showed that developing sustainability indicators through public participation is not only an opportunity for the public to voice its opinion but also allows for the development of more relevant, understandable, and easier to measure indicators. However, one potential drawback of such highly contextualized indicators is that they are not always comparable to other locations as they are too specific. (Ólafsdóttir, 2021)

Accordingly, the development of indicators through participatory processes can also be considered as a form of boundary object (Star & Griesemer, 1989) that translates the meaning of statistical analysis and data between the public and policy makers. The public might perceive it as a way to improve its understanding of policy processes and voicing its opinion, while legislators likely consider it as a tool to improve their indicators and derived policies. Therefore, participatory indicator development can foster a common understanding of policy measurement.

Tools for facilitating the participation include but are not limited to i) consultations through formats that are adjusted to the circumstances of a given group, such as online meetings or meetings in locations that are easily accessible to the respective population group, ii) public submissions with transparent information on the use of the submitted information and relevant decision-making processes, iii) leveraging modern technology, and iv) including corresponding CSOs where the respective group cannot be engaged directly. (Husch et al., 2014; OHCHR, 2018)

While there are plenty of tools available to strengthen public participation in the SDG data collection processes, doing so requires resources and the political will of governments to yield some of their sovereignty of interpretation on SDG measurement and reporting to a broader part of the population. Both are preconditions that are often not met. (Avendano, Jütting, & Kuhm, 2021; Saner et al., 2020)

Statistics Denmark collaborateed with the Danish government, non-state actors and businesses to define methodologies to measure the impact of Danish initiatives on the SDGs, improve decision-making, and improve the availability of timely, high-quality, and granular data (Danish Government, 2017).

2.4.2 Disaggregation

The 2030 Agenda's commitment to leave no one behind requires that the SDGs are not just met for the world on average but also for every single individual as well as minority groups. So far, national statistical systems mostly calculate country averages, ignoring heterogeneities within the population (OECD, 2018). To address this shortcoming, the 2030 Agenda specifies that the data should be disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location, and other characteristics relevant to the national context (United Nations, 2015). The human rights-based approach to data by the OHCHR (2018) also includes sex, displacement status, religion, civil status, sexual orientation, to encompass all grounds of discrimination that are prohibited by international human rights law.

While the 2030 Agenda outlines required dimensions of disaggregation, the success to deliver on the goal to reduce inequalities largely depends on the implementation. Besides the technical challenges of constructing the SDG indicators, their development also faceds the challenge of the political disagreements that carried over from the negotiation of the SDGs themselves. (Fukuda-Parr & McNeill, 2019; Winkler & Satterthwaite, 2017)

Through its very purpose of highlighting inequalities properly, disaggregated data always carries the potential to identify shortcomings in policy and governance. On one hand, this can be a powerful tool for legislators to

improve their performance and, on the other hand, it can also question the work and eventually the legitimacy of legislators (Peter, 2010). As decision makers are aware of this, data collection, indicator measurement, and corresponding deliberations are inherently political.

The political struggles resulting from this can take place in various arenas. In the case of the SDG indicators, those arenas can be located along the entire line of implementation: starting with the definition of the indicators in the Open Working Group, over the selection of indicators to measure at country level, the budgeting and funding of data collection, to indicator reporting, and publishing data for policy adjustments based on identified shortcomings. (Fukuda-Parr & McNeill, 2019)

This becomes apparent when taking a closer look at the genesis of the SDGs, their targets, and indicators. One of the key debates during the negotiation process of Goal 10 "Reduced Inequalities" was on whether reducing inequalities should be a standalone goal or rather a cross-cutting principle that will be incorporated into all goals. (Fukuda-Parr, 2019)

The cross-cutting implementation was advocated for by the developed countries, who used a framing of inequality that perceives inequality as a form of social exclusion and a dimension of poverty. As such, the already existing goals on poverty, hunger, health, water, and sanitation would make a standalone goal obsolete, making redundancy the single argument against a standalone implementation. (Fukuda-Parr, 2019)

On contrary, the standalone implementation favoured by the G-77 and China was based on a framing of inequality that perceived it as a source of uneven distributions of power, justice, resources, and social protection stemming from inequalities between and among countries. (Fukuda-Parr, 2019)

The first target for indicator 10.1 was originaly drafted as "achieve and sustain income growth of the bottom 40 per cent of the population that is higher than the national average" based on a suggestion by the World Bank, which used it as an internal goal for guiding its mission on eradicating extreme poverty. This implementation captures advances against poverty but fails to adequately reflect changes in inequality. In the OWG discussions on the forumlation of the target, alternatives to the original were dismissed based on the ground that the technical choice of the indicator was the responsibility of the IAEG-SDGs. However, during the IAEG-SDGs negotiation, the use of other measures was excluded from the get-go, based on the argument that the IAEG-SDGs cannot reinterpret the political decision made by the OWG. (Fukuda-Parr, 2019)

As a result, the options and consequences of choosing other measures, such as the Gini coefficient or the Palma ratio, that would have reflected changes in inequality more accurately, were never discussed. Since different kinds of data resulting from different measurement tools have vastly different implications, Fukuda-Parr (2019) argues that the choice to avoid this discussion was a strategic decision.

These positions and negotiation practices exemplify how the state actors utilised the negotiations to push the agenda into a direction that aligns with their interests. The already rich and powerful countries sought to preserve the status quo while poor and less powerful countries strived for a more equitable outcome that would benefit their position. (Fukuda-Parr, 2019)

Looking at the prevalence of explicit calls for disaggregation within the indicators framework yields a similar picture. Winkler and Satterthwaite (2017) searched the final list of proposed SDG indicators for explicit mentions of dimensions to disaggregate data by. They found that 46 indicators call for disaggregation by sex, 35 by age and 11 by disability status and none for disaggregation by race and ethnicity. In addition, there are a few indicators with more general calls for disaggregation such as disaggregation by indigenous status (2.3.2 & 4.5.1), key populations (3.3.1) or marginalized communities (13.b.1). While they concede that issues of missing data or data comparability might affect the ability to call for a given dimension of disaggregation, they argue that the fact that race and ethnicity is never explicitly mentioned, is reason enough to assume that the exclusion is politically

motivated. They suspect the underlying reason to be the ability of data to highlight historic and ongoing injustices which those in power do not wish to see displayed at the international level.

Winkler and Satterthwaite (2017) exemplify this by comparing target 10.2 ("By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status") to its indicator ("Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities"), which no longer contains multiple dimensions of inclusion or disaggregation by race, ethnicity, origin, religion, economic or other status.

Similarly, they highlight the danger of simplifying targets using target 10.3 ("Ensure equal opportunity and reduced inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard"), arguing that reducing the complexity of the corresponding indicator 10.3.1 by not including "the reduction of inequalities in outcomes" might lead to only the indicator being used in messaging as it is easier to understand, thereby reducing its comprehensiveness.

Delivering on the data disaggregation as outlined by the 2030 Agenda is a major challenge for NSOs that requires additional capacities and funding (Avendano et al., 2021). For developing countries to be able to produce the data necessary for the SDGs, an additional 200 million ODA is needed annually. Addressing those needs is essential to enable production of disaggregated data. (OECD, 2018)

Given that there are eight characteristics (13 when including the ones outlined by OHCHR (2018)) to disaggregate data by, one of the first barriers is knowing where to start. The OECD (2018) recommends starting with gathering data about the poorest 20% of the population as they are most vulnerable to poverty or exclusion.

Another challenge is collecting data on population groups, such as indigenous people, that are hard to reach through conventional tools. Taylor and Kukutai (2015) suggest building capacities among indigenous groups and provide them with sufficient resources so that they can collect the data themselves. In addition, they recommend establishing indigenous representatives in cases where data is lacking or of insufficient quality. Alternatively, integrating survey, geospatial, or other data with administrative data can help filling some of the data gaps (OECD, 2018). This not only improves the quality of disaggregated data but also increases the participation opportunities for indigenous people.

To fully leverage the benefits of disaggregated data, follow-up policies need to be effective in reaching their target groups. Incorporating disaggregated data in national development plans can support this (OECD, 2018).

Securing sufficient funding is one of the biggest challenges countries meet when producing disaggregated data. To address this, various national agencies use ADAPT, a data production planning tool that calculates detailed cost estimates, to make a more accurate and thereby stronger case for funding data disaggregation (Avendano et al., 2021).

SIDS only account for roughly 1% of the world population. As a result, they have unusually high per capita expenses for statistical activities. Furthermore, the capacities of NSOs vary considerably within SIDS. Given this context, collecting the data is an even bigger challenge for SIDS than it is for other countries. Recognizing this, SIDS in the Caribbean and Pacific region agreed on a set of SDG indicators relevant for their context to reduce the amount of data needed while maintaining international comparability (Avendano et al., 2021; Caribbean Community Secretariat, 2018).

The increased level of granularity and detail that makes data disaggregation so important for identifying population groups at risk of being left behind, also makes it easier to identify individuals in datasets or abuse data to intentionally discriminate a given population group (OECD, 2018). This trade-off can to some extent be mediated by only collecting data on stratification variables that are relevant for a given context (SDSN, 2015).

2.4.3 Self-Identification

In the past, population data by NSOs were used to enable and employ forced migration, loss of property, internment, crimes against humanity, or genocide. Examples for this include the genocide on the Jews by the Nazis, the genocide on the Tutsis in Rwanda, or forced migration, and other serious crimes against native Americans in 19th century US (Luebke & Milton, 1994; Seltzer & Anderson, 2001).

To minimize the risk of such events, the OHCHR (2012) recommends that information pertaining to personal characteristics should be provided by the respondents themselves. While this approach does reduce the risk, it also makes it more difficult to ensure that different participants use the same definition for different characteristics. For example, two respondents with the same characteristics may not necessarily answer a questionnaire in the same way (Canessa, 2007).

The NSOs of Canada, New Zealand, and Australia employ self-identification of indigenous status in their official censuses, official individual and household surveys, and administrative data collections. In addition, this also allowed them to produce better disaggregated data (Taylor & Kukutai, 2015).

2.4.4 Transparency

Without statistical information on the population, the economy, education, health, social security, justice, or wellbeing and how they are distributed within society it is difficult for CSOs and other stakeholders to monitor and enforce human rights and ensure sound governance. (Malaguerra & MacDonald, 2016; OHCHR, 2018)

Statistical transparency can be strengthened by regulating relevant processes and institutions and supplying them with sufficient financial means to fulfil their responsibilities. Ensuring that the data collection process yields correct and accurate data and providing information on data collection processes (paradata) and the data itself (metadata) can further increases the publics ability to engage with statistical information. Publishing results in a timely and context-aware manner enables stakeholders to easily act on current affairs. Finally, SAIs (Supreme Audit Institutions) can translate complex information to a format that is understandable by the public. (Malaguerra & MacDonald, 2016; Montero & Blanc, 2019; OHCHR, 2018)

In the past a SAI in Canada lead to CSOs requesting information on SDG implementation (Montero & Blanc, 2019), Denmark launched a dialogue to ensure transparent data flows between ministries and other data providers (Danish Government, 2017), and Egypt designed an SDG review process that ensures transparency and accountability to the citizens by including civil society and the private sector (UN-DESA, 2019).

2.4.5 Privacy

For any social relation to function, a minimal level of privacy that provides rules for engaging and disassociating is required (Moore, 2003). This also applies to the relation between NSOs and the analysed population. Therefore, NSOs must ensure the privacy of the population is adequately maintained. Failing to do so could lead to individuals losing trust in the agency, impairing its ability to fulfil its duties.

Furthermore, the cases of misuse of statistical data by NSOs outlined in the Self-Identification section illustrate how weak data confidentiality can lead to the most serious kinds of human rights violations. This highlights the importance for NSOs to respect the population's privacy.

To minimize the risk of privacy violations, data collection must be regulated by law and used for statistical purposed only (OHCHR, 2018). Cavoukian, Taylor, and Abrams (2010) recommend implementing a privacy-by-design approach in all stages of statistics.

Such an approach can be facilitated by adopting seven principles: i) proactive not reactive; preventative not reactive, ii) privacy as the default, iii) privacy embedded into design, iv) full functionality – positive sum, not zero-sum (NSOs *and* users benefit from privacy), v) end-to-end lifecycle protection, vi) visibility and transparency, and vii) respect for user privacy. Furthermore, staff should be trained in relevant computer skills such as database, cryptography, privacy-preserving, and privacy-enhancing technologies (National Academies of Sciences, Engineering and Medicine, 2018).

To minimize the risk of data misuse for forced migration, loss of property, internment, crimes against humanity, or genocide, countries should strengthen the independence of NSOs (SDSN, 2015). According to Seltzer and Anderson (2001), NSOs can further minimize the risk by employing the safeguards outlined in Table 2.1.

Type of Safeguard	Description
Substantive safeguard	Refrain from collecting data on potentially dangerous variables (ethnicity, religion, etc.)
Methodological and technological safeguards	Employ small sample sizes; deliberately include errors; lower the geographic resolution; use large categories for variables so that small/large response values are protected
Organizational and operational safeguards	Decentralize the statistical system; establish an independent committee that decides on data releases; remove personal identifiers from machine readable data; divide data into information on the individual and information on values and bridge them using a file that is stored in an independent foreign country
Ethical safeguards	Establish an agreed-on normative standard and pre-existing statements of ethical norms; discuss ethical issues among statisticians and users

Table 2.1: Safeguards to reduce the risk of data misuse for forced migration, loss of property, internment, crimes against humanity, or genocide.

To meet the challenge of populating the SDG indicators with data, integrating new data sources such as big data, citizen-generated data, or satellite imagery provides potent opportunities. However, all of them come with their own challenges regarding privacy that need to be addressed before they can be used to measure SDG indicators in a way that is compatible with a HRBAD. (Avendano et al., 2021)

Statistics Netherlands, the NSO of the Netherlands, is institutionalized as an autonomous administrative authority that operates independently and without direct supervision of a Dutch ministry (CBS, 2021). For releasing microdata, it employs a policy that is formulated as a set of specific exceptions. It is required to adopt measures to prevent the recognition of individual persons, households, companies, or institutions. Furthermore, microdata can only be released to users that take appropriate measures to ensure the microdata is only used for statistical or academic research. Statistics Netherlands also contains a department that conducts research, consultancy, and education on confidentiality, and has developed a specialised software to protect microdata and tables. (Kooiman, Nobel, & Willenborg, 1999)

2.4.6 Accountability

Accountability and transparency are closely interlinked. Transparent information on public decisions enables civil society to confront and sanction decision makers. Without this mechanism, decision makers can act without public scrutiny, increasing the risk that relevant institutions fail to fulfil their responsibilities as human rights duty-bearers. Regarding the SDGs, stronger accountability also incentivizes stronger action and impact. (Husch et al., 2014; OHCHR, 2018; Scott, 2007)

Similar to transparency, accountability can be fostered through the provision of timely, standardized and contextually relevant data that is gathered and visualized in data hubs (Husch et al., 2014; Thrift & Bizikova, 2016), linking official statistics with other data sources. Alternative measures are communicating the results to potentially interested stakeholders (Scott, 2007) or ethical guidelines for NSOs that outline principles of best practices for professionals (Seltzer, 2001).

In cases where public demand for data is low, it can be raised through new institutions or legislation. Increasing demand likely prompts more questions on the used methodology and sources of the data sparking a dialogue to improve the overall data quality. (Scott, 2007)

While monitoring is an important component of accountability, for civil society to be truly able to hold the relevant institutions accountable, mechanisms for review and remedial action processes are required as well (Williams & Hunt, 2017; Scott, 2007). Civil society can facilitate this accountability process by protecting the independence of NSOs from political manoeuvring (Saner et al., 2020).

The following three examples showcase measures that improve accountability. In Papua New Guinea, a proposed SDG Multi-Stakeholder Engagement Strategy concentrated on enhancing all government institutional arrangements and coordination of society-wide approaches to leave no one behind. Argentina, Bangladesh, Bulgaria, Gambia, Kenya, Samoa, Seychelles, and Zambia institutionalized the right to access information in legislation or the national constitution. Lastly, Costa Rica's national investment plan, inter alia, prioritizes accountability between domestic and international actors. (UN-DESA, 2020)

2.5 Hypotheses

Based on the literature presented above, the following section outlines hypotheses regarding a HRBAD that gauge its effectiveness on ensuring human rights and progress on the 2030 Agenda.

Data collection processes always run the risk of not being representative, not managing to measure the intended value or omitting important variables due to methodological, financial, cultural, staffing, or political challenges. These issues can lead to the omission of vulnerable groups and impair the precision, reliability, comparability, and advocacy power of the results.

Furthermore, there is always the latent threat of contributing or leading to human rights violations such as forced migration or genocide. While this threat does not usually directly result from the data collection practice itself, practices that do not take sufficient preventive measures can significantly worsen the gravity and scope of such events.

A HRBAD provides a toolbox to ensure that all population groups are adequately involved in the data collection process without exposing them to the dangers associated with collecting disaggregated data on sensitive topics. Accordingly, practices that adhere to a HRBAD should perform better at avoiding human rights violations and promoting the 2030 Agenda.

H 1: Data collection in line with a HRBAD performs better at avoiding human rights violations and promoting the 2030 Agenda.

As the principles of a HRBAD can be implemented with different levels of effectiveness, their implementation does not per se guarantee the adequate safeguarding of human rights or sufficient progress towards the 2030 Agenda. Measuring the SDGs is an inherently political process that is closely associated with changes in institutions and governance. Therefore, there is the possibility that environments, which seek to prevent systemic change, do implement the principles of a HRBAD, but in a way that does not provide sufficient protection against

human rights violations or guarantee progress towards the 2030 Agenda. This prevention of systemic change can happen through any of the many monitoring challenges outlined above.

A key challenge in measuring progress towards the SDGs is the availability of data, especially data sufficiently disaggregated to identify groups left behind. Important factors contributing to this are the available capacities of the involved organisations, the methodological challenges associated with a given indicator and, when surveys are employed, the trust of the population in the organisation conducting the survey. Privacy, self-identification, and transparency can help build the necessary trust to get people involved in data collection processes. From there, given the sufficient technical, personnel and financial capacities, genuine participation can ensure that data disaggregated by relevant grounds can be collected in a way that is in accordance with the target population's interest. In a next step this data can be used to design and implement policies that ensure their needs are met. Throughout this process accountability mechanisms can help ensure that human rights are maintained in the data collection process.

Finally, once collected, the data can be used to advocate for and enforce human rights. This can be facilitated by employing participatory measures to make sure the data is known, transparent publishing of the results, and introducing appropriate accountability mechanisms. Besides these synergies, highly disaggregated data, especially when published transparently without further measures, can allow for the identification of very specific population groups or sometimes even individuals, potentially infringing on people's privacy. Following these relations between the different principles of a HRBAD, they should not weight and perform equally in avoiding human rights violations and promoting the 2030 Agenda. For example, without disaggregated data it is not possible to identify groups of interest. This makes it impossible to hold actors accountable, no matter how good the accountability mechanisms are.

H 2: Not all HRBAD data collection best practices have the same weight and performance in avoiding human rights violations and promoting the 2030 Agenda.

2.6 Methodology

This section describes the process to gather and identify best practices for collecting data on SDG indicators and test them on their ability to meet the goals of a HRBAD. The analysis is composed of two steps: *First*, a catalogue of best practices was composed. *Second*, the hypotheses outlined in the Hypotheses section are evaluated using the identified best practices.

2.6.1 Compiling a Catalogue of Best Practices

For this work, a practice was defined as a "tangible or visible behaviour" (Bardach & Patashnik, 2019, p. 110) and a best practice in the context outlined above was defined as a practice for a given task that performs the best at following the six principles of a HRBAD:

- Participation
- Disaggregation
- Self-identification
- Transparency
- Privacy

- Accountability

The SDG indicator framework is comprised of 231 unique indicators, with data being collected for up to 197 countries. Identifying best practices for all of those would have been beyond the scope of this work. Therefore, and because of the authors internship at the OHCHR, best practices were only identified for practices that either apply to data collection for the SDGs in general or that are specific to the four indicators that the OHCHR is the custodian agency of. These indicators are:

Indicator Number	Indicator Description
10.3.1/16.b.1	Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law
16.1.2	Conflict-related deaths per 100,000 population, by sex, age and cause
16.10.1	Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months
16.a.1	Existence of independent national human rights institutions in compliance with the Paris Principles

Table 2.2: SDG Indicators that the OHCHR is the custodian agency of.

Furthermore, only practices from a limited number of countries were analysed. To create a list of countries to analyse, Voluntary National Reviews, NSO websites, data, and metadata availability for the relevant indicators were evaluated. The countries with the highest availability were selected, while maintaining heterogeneity in terms of geography, development, and institutional capacity and ensuring that there is at least one country with data for each indicator.

The best practices and information on them were gathered through available online resources, such as NSOs websites, UN agencies, or other international organisations, Voluntary National Reviews, or data documentation. Using the catalogue of best practices, some preliminary meta-analysis was conducted regarding commonalities and differences between them, as well as other relevant observables.

2.6.2 Analytical Methodologies: Evaluating the Hypotheses and the Analytical Value of the HRBAD Principles

The hypotheses were evaluated based the catalogue of best practices using a qualitative approach. For this, the hypotheses were checked against the catalogue as a whole. Furthermore, for H 1 the hypothesis was checked against all applicable practices in the catalogue, allowing for a more precise differentiation between various levels of applicability of the hypothesis on a practice and a better navigation of gaps in the literature. The evaluation of the hypothesis itself consisted of reading the available literature on a practice and, judging whether the hypothesis had to be confirmed or rejected based on said literature.

Additionally, this step also evaluated the added analytical value the six principles of a HRBAD provide in judging a practice's quality. This was done for all principles as an integrated framework as well as various combinations of principles. Based on the synergies and target conflicts outlined in the literature, the following principle combinations were analysed: i) participation/data disaggregation regarding participation's potential to facilitate comprehensive data disaggregation, ii) participation/transparency/accountability regarding synergies in

improving society's response to data, and iii) data disaggregation/transparency/privacy regarding target conflicts between data disaggregation/transparency and privacy.

2.7 A Catalogue of Best Practices

Six countries and their respective NSOs were analysed for the compilation of the best practices: United Kingdom (ONS), Colombia (DANE), Peru (INEI), Kenya (KNBS), Moldova (NBS), and Palestine (PCBS). The initial idea was to only look at the best practices of the countries that have a certain level of data availability regarding the four SDG indicators outlined in the previous chapter. However, during the data gathering process it became apparent that many countries do not yet have data for many of the relevant indicators but are actively working on filling the gaps and many of the countries that do not (yet) have data, already have practices that are worth noting. Therefore, best practices were selected for all six countries listed above.

2.7.1 General Description of the Catalogue

Contrary to original expectations, the identified best practices did not correspond to a specific indicator but rather applied to a much more general scope such as a set of indicators, a country's SDG monitoring framework, or even to an entire NSS.

As not all analysed countries use English as their sole or main language, various sources in Spanish (Colombia and Peru), Romanian (Moldova), and Arabic (Palestine) had to be studied. To surpass the resulting language barrier, the public documents were translated using Google Translate (Alphabet, 2021) or DeepL (DeepL, 2021). These services send the texts to the serves of the respective provider for translation, therefore non-public documents were not translated at all to prevent the leakage of confidential information.

As a result, 27 unique best practices related to five out of six principles of the HRBAD were identified. Many of the practices were implemented by more than one NSO and related to more than one HRBAD principle, the latter being due to the strong interlinkages between the principles. Table 2.3, lists these best practices, the countries enacting them, and the associated HRBAD principles.

2.7.2 Preliminary Meta-Analysis of the Catalogue

Practices that are related to transparency were often found to also be related to accountability. This connection is to be expected as transparent public information is often a requirement for holding institutions accountable. A similar, albeit weaker, connection can be seen with participation: Best practices that were related to participation were often also related to transparency or accountability as transparency facilitates participation and participation facilitates accountability.

Best practices with regulatory or code of practice and ethics elements often linked privacy to accountability through clauses in documents that guaranteed respondents' privacy and could therefore be used to hold NSOs accountable for violating said legislation or principles. Table 2.4 illustrates these relationships by showing how often a given principle combination occured.

Practice	Description	Related HRBAD Principle(s)	Enacting Countries
Public Consultations			
Usefulness Survey	Survey on the website for users to provide feedback on how to improve the presentation and dissemination of statistics and data. (ONS, 2018a)	Participation, Transparency, Accountability	United Kingdom
Consultation on Data Availability	Consultation with national and local governments, charities, the voluntary sector, international organisations, the private sector, and academia to ensure that the reporting on SDG indicators is as readily available as possible and matches the needs of the users. (ONS, 2017; Republic of Moldova, 2020)	Participation, Transparency, Accountability	United Kingdom, Moldova
Online Tools and Services			
Dissemination Calendar	Statistics dissemination calendar that shows past, current, and future releases and provides links to the corresponding website of past releases. (ONS, 2021e; DANE, 2021c; INEI, 2021a; KNBS, 2021a; NBS, 2021b; PCBS, 2021d)	Transparency, Accountability	United Kingdom, Colombia, Peru, Kenya, Moldova, Palestine
SDG Data Platform	Interactive online platform that contains data, metadata, paradata, (linked) source information, visualizations, or error margins on SDG indicators. (ONS, 2021a; INEI, 2021b; NBS, 2021c; PCBS, 2021e)	Participation, Transparency	United Kingdom, Peru, Moldova, Palestine
Aligning SDG Data Platform with WCAG 2.1 Standard	Bringing the SDG Data Portal in line with the WCAG 2.1 standard (W3C, 2018) makes it accessible to people with disabilities such as blindness, deafness, limited movement, or photosensitivity. (ONS, 2020a)	Participation, Transparency	United Kingdom
Build SDG Data Platform with Open SDG Framework	Use the Open SDG (Open SDG, 2021) framework, a reporting platform developed for managing and reporting data related to the SDGs. It is built exclusively with open-source libraries and tools and free to use, host, and maintain. This enables the NSO to report data in line with international standards (i.e., the UN global indicator database) and improve communication with data providers, custodian agencies, and other stakeholders. (ONS, 2021a)	Transparency, Accountability	United Kingdom
Privacy Website	Website with information on privacy relevant topics for survey respondents, including relevant contact details, usage purposes of the collected data, recipients of personal data, storage duration, and links to more information. (ONS, 2021d)	Privacy	United Kingdom

Transparency Website	A website that provides general information on the NSO, such as the organisational structure, budget, planning, petitions, complaints, requests, procedures, services, and more. (DANE, 2015; Gobierno del Perú, 2021)	Transparency	Colombia, Peru
Accountability Website	A website that outlines the accountability mechanism behind the NSS. (DANE, 2021a)	Transparency, Accountability	Colombia
Highlight Privacy Article on Website	Cite the corresponding paragraph from the statistics legislation that guarantees the respondents privacy on the homepage of the website to recall the purpose of statistical data and guarantee that privacy is maintained. (PCBS, 2021b)	Disaggregation, Privacy, Accountability	Palestine
Publish Statistics Regulations	Publish all regulations applicable to statistics on the website. (ONS, 2020b; DANE, 2021d; Gobierno del Perú, 2021; KNBS, 2021b; NBS, 2021a; PCBS, 2000)	Transparency, Privacy, Accountability	United Kingdom, Colombia, Peru, Kenya, Moldova, Palestine
Codes of Practice and Ethics			
Declaration on Professional Ethics	Adopt the Declaration of Professional Ethics by the International Statistical Institute or an equivalent ethics code, that outlines appropriate behaviour towards society, funders, employers, colleagues, and subjects. (ONS, 2021c; PCBS, 2021c)	Privacy	United Kingdom, Palestine
Oath of Secrecy	A mandatory oath for statistics personnel where the oath taker commits to not reveal any information to unauthorized recipients. (Republic of Kenya, 2019)	Privacy, Accountability	Kenya
Code of Practice	A code that outlines principles and practices related to the institutional setting, quality assurance, confidentiality, or impartiality that producers of statistics must commit to. Some NSOs (ONS, 2021b; INEI, 2012; PCBS, 2006) have their own code, DANE shares one with other NSOs (Conferencia Estadística de las Américas de laa CEPAL, 2011), and (NBS, 2017) refers to the European Statistics Code of Practice (Eurostat, 2017) and the United Nations Fundamental Principles of Official Statistics (UNECE, 1992).	Transparency, Privacy, Accountability	United Kingdom, Colombia, Peru, Moldova, Palestine
Regulations			
Regulate Statistics	Regulate the production, use, financing, institutional setting, publication, and confidentiality related to statistics by law. (ONS, 2020b; DANE, 2021d; Gobierno del Perú, 2021; KNBS, 2021b; NBS, 2021a; PCBS, 2000)	Transparency, Privacy, Accountability	United Kingdom, Colombia, Peru, Kenya, Moldova, Palestine

NSO as NSS Coordinator	Designate the NSO as the governing body, coordinator, and regulator of the NSS to consolidate the statistical sector and ensure the availability of the data needed to monitor the SDGs. (DNP, 2018; Republic of Kenya, 2020)	Disaggregation, Accountability	Colombia, Kenya
	Planning Documents		
Statistics Development Plan	A plan, strategy, roadmap, or similar that outlines the development of official statistics for the next few years. The document also addresses data gaps in SDG indicator monitoring and associated challenges such as funding, cooperation, methodology, or capacity with the goal to leave no one behind. (ONS, 2018b; DANE, n.d.; INEI, 2018; KNBS, n.d.; Republic of Moldova, 2016; PCBS, 2021a)	Disaggregation, Transparency, Accountability	United Kingdom, Colombia, Peru, Kenya, Moldova, Palestine
Data Gap Progress Report	A report on the progress on filling the data gaps related to the national SDG monitoring framework. This can be done within a statistics development plan or in an independent framework/document. (ONS, 2018c; DANE, n.d.; INEI, 2018; PCBS, 2021a)	Disaggregation, Transparency, Accountability	United Kingdom, Colombia, Peru, Palestine
SDG Baseline Report	A baseline report that outlines the initial state of SDG indicators to measure future progress against. (INEI, n.d.)	Transparency, Accountability	Peru
Benchmarking Report	A report that compares the country's progress to that of another entity. In the case of Moldova, the values are compared to the values of the EU. (NBS, 2019)	Transparency, Accountability	Moldova
Implementation Barometer	An implementation Barometer that measures the level of implementation of a given indicator. (Gobierno de Colombia, 2021) The barometer of DANE has four levels A: Green (the indicator is being produced), B: Light green (the indicator is not produced but can be produced with existing sources), C: Yellow (some information is available, but needs to be improved or supplemented to produce the indicator), and D: Red (No information is available to produce the indicator). (Gobierno de Colombia, 2021)	Disaggregation, Transparency, Accountability	Colombia
	Collaborations		
Join GPSDD	Join the Global Partnership for Sustainable Development Data network to improve the quantity, quality and availability of data, and exchange on statistical challenges by providing or receiving assistance from other members of the network. (ONS, 2018c; DNP, 2018)	Participation, Disaggregation	United Kingdom, Colombia

Collaborate to Build Capacity	A working group between the NSO and the United Nation System in the Country to promote target 17.18 (capacity building for high-quality, timely, reliable, and disaggregated data). (DNP, 2018)	Disaggregation	Colombia
Collaborate with OHCHR to Identify Groups Left Behind	Collaborate with the OHCHR to identify groups left behind. (Republic of Kenya, 2020)	Disaggregation	Kenya
MoU with NSS Partners	Sign a MoU with partners in the NSS that outlines common tasks, obligations, outputs, respective timetables, and communication channels. The MoU facilitates, regulates, and advances the statistical work. (PCBS, 2021a; OHCHR, 2021a)	Disaggregation	Kenya, Moldova, Palestine
	Others		
Statistics Diffusion Promotion Program	Program to promote the access, knowledge, and use of statistics. (DANE, 2021b)	Participation, Transparency, Accountability	Colombia
Conduct and Publish Peer Review of NSO	Conduct a Peer Review of the NSO by an appropriate outside organisation and publish it on the NSO's website. (Snorrason, Byfuglien, & Vihavainen, 2015; Lehohla, Chuwa, & Mpetsheni, 2015; Hackl, Szczerbinska, & Täube, 2012) In the case of European countries, the European Statistical System conducted a Peer Review program (Eurostat, 2021) to monitor the implementation of the Code of Practice (Eurostat, 2017) and published the result on the NSO's website. In the case of Kenya, the peer review was conducted by South Africa and Tanzania together with PARIS21 and the African Union Commission (Paris21, 2015).	Transparency, Accountability	United Kingdom, Kenya, Palestine

Table 2.3: Catalogue of Best Practices.

	Participation	Disaggregation	Self-identification	Transparency	Privacy	Accountability
Participation	-					
Disaggregation	1	-				
Self-identification	0	0	-			
Transparency	5	3	0	-		
Privacy	0	1	0	3	-	
Accountability	3	5	0	15	5	-

Table 2.4: Correlation matrix of the different HRBAD principles. Each cell shows the number of practices that contain both HRBAD principles.

Country	Participation	Disaggregation	Self-identification	Transparency	Privacy	Accountability	Total
United Kingdom	5	3	0	12	5	10	**15**
Colombia	2	6	0	10	3	10	**13**
Peru	1	2	0	9	3	7	**9**
Kenya	0	4	0	5	3	7	**9**
Moldova	2	2	0	8	3	7	**9**
Palestine	1	4	0	8	5	8	**11**
Total	**6**	**9**	**0**	**18**	**7**	**18**	**27**

Table 2.5: Cross-tabulation of number of best practices per HRBAD principle by country. Note: The rows do not add up to the total row as one best practice is often enacted by several countries. Similarly, the columns do not add up to the total column because one best practice can be related to multiple principles of a HRBAD.

Table 2.5 provides an overview of the frequency of each HRBAD principle for a given country. The most striking insight from this perspective is that none of the identified best practices related to Self-identification. This might be because self-identification is a very hands-on practice that often only becomes relevant during the very step of data collection itself and therefore might not need to be discussed as frequently. However, as the five other principles found a decent amount of traction, the severe possible negative implications of failing to allow for self-identification and the impossibility to assess whether all NSOs apply self-identification for all relevant surveys this lack of appearance highlighted a possible blind spot.

There was no clear difference, regarding the number of enacted best practices, between NSOs in developed countries with more resources available and NSOs in developing countries with less resources available: ONS enacted a total of 15 best practices, DANE 13, PCBS 11, INEI, NBS and KNBS 9 respectively.

Most of the best practices found could be categorized into five general categories: i) public consultations (2) such as user surveys or data use promotion programs, ii) online tools and services (9) like data dashboards or websites with information on transparency or privacy, iii) codes of practice and ethics (3) that outline moral guidelines for good statistical conduct, iv) regulations (2) that set the legislative boundaries for statistical processes and institutions, v) planning documents (5) such as data gap strategies or statistical development plans, and vi) collaborations (4) with national or international actors. Only the best practices "statistics diffusion promotion program" and "conduct and publish peer review of NSO" could not be attributed to these categories.

2.8 Results

The following section presents the results from the analysis of the best practice catalogue. It consists of an evaluation of the hypotheses, if applicable by each principle of a HRBAD, the overall role of the principles in safeguarding human rights and ensuring progress on the 2030 Agenda, and an evaluation of the added analytical value of the principles.

2.8.1 Evaluation of the Hypothesis

Practices that promoted *participation* were practices that give data users a voice, empowere them by building their capacity or make data more readily available. They either facilitate participation or enabled users to directly participate in the statistical process which allows users to ensure that the data production process suits their needs and circumstances and respects their rights. This involvement builds trust, a key requirement for the collection of sensitive data. More applicable and higher quality data facilitates the identification of discrimination issues, which again makes it easier to draft corresponding policies.

Besides the challenge of building the trust needed to gather data on potentially sensitive issues such as ethnicity or gender, *disaggregation* also requires a significant amount of human, financial, and methodological resources. Accordingly, practices that promoted disaggregation often aimed at building trust among the population, increasing the capacity of an NSO, fostering collaboration with partners, or organizing the statistics production process.

Once disaggregated data is available, it significantly increases the ability to identify human rights shortcomings in terms of missing or insufficient data, and – intentional but also unintentional – differential human rights outcomes across all aspects of life. Furthermore, disaggregating data strongly enhances the data's ability to identify priority areas for progressing on the 2030 Agenda.

Practices that promoted *transparency* provided information on the data and the statistical process to the users and the general public. This can be done in various ways such as publishing regulations, data strategies, data

itself or NSO peer reviews. Having this information publicly available makes it easier to hold NSOs accountable to their duties of protecting human rights and supplying data to progress on the 2030 Agenda.

These practices also facilitated the interaction between an NSO and its stakeholders as they increase latter's awareness of the setting an NSO operates in. For example, it enables producers of non-official statistics to identify collaboration opportunities or allows groups at risk of being left behind to point out methodological shortcomings that put them at risk. As such, transparency was not just a key factor for safeguarding human rights but also essential in ensuring that data collection leaves no one behind.

Practices that promoted *privacy* informed data users about their right to privacy or safeguarded these rights through codes of practice or regulation. Through this they either enable rights bearers to enforce their right to privacy themselves or build social or organisational institutions that pre-emptively secure the right to privacy. As privacy is essential for building trust, measures that promote privacy often also promote trust and therefore facilitate data collection on sensitive topics.

Practices that promoted *accountability* provided rights bearers with information relevant for enforcing their rights or set up processes that can be used for said purpose, create codes or regulations that can be used to hold duty bearers accountable, or create tools that help duty bearers fulfil their duties.

As a result, these practices either safeguarded human rights by design, as is the case with regulations or codes of practice or enableed rights bearers to enforce their rights themselves. Additionally, the monitoring and implementation documents that can be used to hold duty bearers accountable can also be used to ensure that enough data is available to sufficiently monitor the progress on the 2030 Agenda and identify priority areas.

When looking at the catalogue of best practices as a whole, it could be seen that best practices that endorse a HRBAD informed and empowered data users, including groups at risk of being left behind, provideed information on the data production process, guideed or regulated statistical actors, and increased relevant capacities. This allows NSOs to better fulfil their duties as statistics producers and provides rights bearers with the tools and information necessary to enforce their rights.

Publishing information on the statistical process and involving data users and providers creates transparency and facilitates accountability, leading to increased trust among the different parties. This trust in turn facilitates the collection of data on sensitive topics such as ethnicity, gender or sexual orientation that is essential for identifying discrimination or groups at risk of being left behind.

Accountability and transparency mechanisms of best practices related to a HRBAD promoted progress on the 2030 Agenda by addressing existing capacity gaps, by facilitating cooperation and coordination among data producers and users, and by enabling policy makers to better identify priority areas for sustainable development. Given these results, hypothesis H 1 "Data collection in line with a HRBAD performs better at avoiding human rights violations and promoting the 2030 Agenda" could be confirmed.

Practices that significantly affected all aspects of a statistical organization like codes of practice, regulations, peer reviews, or strategy and planning documents were often associated with transparency, accountability, or privacy and acted as a catalysator for other practices. As a result, it is those practices and principles of a HRBAD that had the most weight for avoiding human rights violations and promoting the 2030 Agenda.

Further key practices like an SDG data platform, a privacy website, or various collaborative or participative formats to evaluate and improve the data production process had a heavy focus on participation and disaggregation while also including privacy and transparency to some extent.

While still important albeit not quite as essential, practices that informed data users on background information such as transparency or accountability websites, benchmarking reports, or implementation barometers significantly contribute to safeguarding human rights or advancing on the 2030 Agenda. Similar to the practices

affecting all parts of a statistical organization, they also tended to promote transparency and accountability.

Lastly, practices enhancing the ones outlined above, such as highlighting the privacy article from the statistics regulation on the website, aligning the SDG data platform with the WCAG 2.1 Standard or building the SDG data platform with the Open SDG framework, could make a relevant contribution to the prevention of human rights violation or progressing on the 2030 Agenda. Yet, they were likely not as crucial as the practices outlined above.

According to these results, hypothesis H 2 "Not all HRBAD data collection best practices have the same weight and performance in avoiding human rights violations and promoting the 2030 Agenda" could be confirmed.

2.8.2 The Role of the Principles in a HRBAD

When looking at the overall role of the various principles of a HRBAD, significant differences could be identified:

Participation mechanisms provide minorities with an opportunity to raise their voice and ensure that the statistical processes and results sufficiently cover their circumstances. Furthermore, they facilitate coordination and cooperation between different data producers and data users.

Disaggregation is the key factor for identifying groups at risk of being left behind, informing policy and ensuring that human rights outcomes do not just apply to the population as a whole but also to individual subgroups.

Although no practice corresponding to *self-identification* could be identified, literature shows that self-identification is essential for collecting data on sensitive issues such as ethnicity, gender, or sexual orientation and reduces the negative consequences of human rights violations, such as genocides, forced migration, or crimes against humanity, that are based on sensitive variables.

It is both impossible to hold somebody accountable to something one is not aware of or to meaningfully participate in a deliberation process where the context and implications are unknown. Both issues can be addressed through *transparency*. Therefore, transparency is essential for effective accountability and participation, as well as the further development of the statistical process that builds on the two. Additionally, transparency builds trust among stakeholders which facilitates coordination and cooperation.

An NSO can simply stop publishing data if it wishes to disassociate its relation with an individual. For the individual however, *privacy* is the only option for disassociating with the NSO. As basic rules for engaging and disassociation are the basis for any social relation (Moore, 2003), privacy is the key component for building trust between the NSO and the public. Furthermore, stringent privacy mechanisms are crucial for preventing or reducing the negative effects of human rights violations that build on administrative records or other statistical data.

Mechanisms and resources that enable rights bearers to hold duty bearers accountable for their responsibilities and actions are essential for preventing human rights violations and ensuring that the data necessary for progressing on the 2030 Agenda is being collected. *Accountability* ensures that the realization of these goals does not simply depend on goodwill but, if necessary, can be enforced by the people affected.

While collecting data in a way that is in accordance with a HRBAD generally increaseed the protection of human rights and promoted the 2030 Agenda, most of the principles of a HRBAD can be implemented to varying degrees yielding different levels of effectiveness. The collected best practices that are enacted by multiple countries illustrate this: For example, ONS' Inclusive Data Action Plan for the 2030 Agenda is a standalone document with detailed information on steps to advance data collection on underreported indicators and to make sure data is collected for all population groups, while the corresponding plan of the NBS is embedded within in its Strategy of Development of National Statistical System.

The reasons for these differences can be manifold: lack of time, funds, methodological expertise, or other resources, but also insufficient political will. Therefore, simply implementing the minimum of a HRBAD does

not necessarily grant a sufficient safeguard against human rights violations or effectively promote the 2030 Agenda per se. For example, conducting a survey on the usefulness of the data that, once finished, is never looked at is just as meaningless as a transparency website that is unknown or very hard to access. Similarly, the use of accountability mechanisms can be heavily curtailed by limiting transparency and not publishing relevant information. Therefore, despite its evident potential to increase the life of many, a HRBAD can also be used for image polishing similar to how climate labels can be used for greenwashing.

2.8.3 Evaluation of the Added Analytical Value of the HRBAD Principles

The six principles of a HRBAD as an analytical framework allowed for a categorization of the best practices based on the way they contribute to a HRBAD, allowing for a structured comparison of the different best practices. Following this, the best practices could be used to compare the different principles and derive general statements on their impact, challenges, and interactions with other principles.

Two of the three principle cominations analysed lead to further insights: The combination of participation and disaggregation highlighted the importance of participation for enabling comprehensive disaggregation. Similarly, the combination of the participation, transparency, and accountability principles showed the significance of engaging, informing, and enabling the public for encouraging the use of data by actors that are outside the conventional statistical system.

When looking through the lens of the principle combination of disaggregation, transparency, and privacy, literature suggests a trade-off between disaggregation and transparency versus privacy. However, no such trade-off could be directly observed in the identified best practices. This was likely because the best practices related to disaggregation and transparency, were already implemented in a way that sufficiently addresses privacy concerns. For example, the observed SDG data platforms did not contain data on individuals.

2.9 Discussion

Measuring the progress on the 17 SDG and their 232 indicators is an "unprecedented statistical challenge" (MacFeely, 2020, p. 362), even more so when uninformed ways of data collection can pose a significant threat to human rights. To facilitate this process the United Nations OHCHR (2018) published a guidance note on how to measure the progress on the 2030 Agenda using a HRBAD. In order to assess a HRBAD's effectiveness, 27 best practices from six different NSOs were identified and analysed based on their capacity to safeguard against human rights violations, promote progress on the 2030 Agenda, and their relative importance.

The results showed that a HRBAD can indeed provide significant protection against the challenges mentioned above. Beyond highlighting the importance of the principles themselves, the results also showed that not all best practices are equally powerful. Accordingly, it is crucial that key practices which affect all aspects of a statistical organization such as codes of practice, regulations, peer reviews, or strategy and planning documents are implemented following the state-of-the-art. The HRBAD principles also depend on each other to realize their full potential. For example, accountability and participations mechanisms require that users of these mechanisms have transparent access to the relevant information or disaggregation benefits from participation mechanisms in identifying relevant disaggregation dimensions.

Finally, as each principle can be implemented to varying degrees, it is important to ensure the practices are implemented with sufficient resources and political will. Otherwise they run the risk of being ineffective. For example, a consultation process is meaningless if the relevant groups are not invited or lack necessary background information. Therefore, simply adhering to a HRBAD when collecting data on the SDGs on its own is

not sufficient for safeguarding human rights and ensuring progress on the 2030 Agenda. To realize the potential of a HRBAD, a minimum level of political will as well as resources for implementing meaningful measures is needed. Otherwise, a HRBAD risks polishing one's image without delivering on its promise.

The current state of progress regarding the 2030 Agenda and expecially on SDG indicators monitored by OHCHR indicate that we are still a fair bit away from realizing human rights for everybody (United Nations, 2021a, 2021b, 2021c). The compiled catalogue of best practices can serve as a steppingstone for enabling statistics producers to collect data in a way that offers additional protection against human rights violations and strengthens the progress on the 2030 Agenda. Furthermore, understanding the synergies and trade-offs between as well as the relative importance of the different best practices and HRBAD principles can help identify potential threats to human rights, open up opportunities to improve data collection related to the 2030 Agenda, and subsequently prioritize potential measures.

2.10 Limitations

Given the restricted scope of the research conducted, it has to be noted that there are many other best practices out there that were either not captured because they did not directly apply to the SDG indicators studied, such as NBS' GenderPulse Dashboard (NBS, 2020), or because they were not enacted by the studied countries.

When compared to the institutional and cultural intricacies of each NSS, the analysis was very general and likely did not sufficiently account for the detailed circumstances of each system. This also includes the restriction to online documents as sources and the subsequent inability to evaluate how some of the best practices were implemented in the actual statistical production process. Accordingly, challenges or risks arising from implementation could not be included in the analysis.

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