

Using Citizen-Generated Data to monitor the SDGs

A Tool for the GPSDD Data Revolution Roadmaps Toolkit

This tool was created by [DataShift](#) - an initiative that builds the capacity and confidence of civil society organisations to produce and use citizen-generated data (CGD) to monitor sustainable development progress, demand accountability and campaign for transformative change. Our vision is a world where people-powered accountability drives progress on sustainable development.

DataShift is an initiative of [CIVICUS](#), in partnership with [The Engine Room](#) and [Wingu](#). For more information on DataShift or to get involved, please visit www.thedatashift.org or email datashift@civicus.org. Subscribe to our email list: <http://is.gd/datashiftnews>



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PART I - INTRODUCTION

Background

The new global Sustainable Development Goals (SDGs) were agreed by governments in 2015 to guide the world's priorities and actions on sustainable development for the next 15 years. As part of this process, a 'data revolution for sustainable development' has been called for, to ensure we have the information needed to make the best policy choices, track SDG progress at all levels, and ultimately, deliver on the promise of these crucial global goals.

There is a strong consensus, partly based on lessons learned from the Millennium Development Goals (MDGs), that citizen and civil society engagement is critical to the design, implementation and monitoring of the SDGs. Moreover, for the SDGs 'to meet the ambition of being truly transformative, the monitoring and accountability framework, spanning from the local to the global levels, must be people-centred, inclusive, transparent and participatory.'¹

In the context of the SDGs, citizen-generated data could play an important role in monitoring and driving progress on sustainable development at all levels. This is because it can complement official sources of data, fill data gaps that exist in a timely way and supplement official reporting when data quality is insufficient. Furthermore, it is gathered on themes and topics that matter to citizens, potentially flagging up issues of social injustice, economic inequality or environmental degradation that might otherwise be missed.

Citizen-generated data is often produced in real or near-time, is grounded in local context and can amplify citizen voices and perspectives on SDG progress, including of those typically marginalised and hard to reach. The production and use of citizen-generated data can also enable the direct, active and invested participation of people in the SDGs.

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<http://tapnetwork2030.org/wp-content/uploads/2015/04/TAP-Network-Review-Accountability-Position-Paper.pdf>

Both governments and civil society therefore have an opportunity, as well as a responsibility, to ensure the SDGs and the data revolution spur the transformational changes that are required to tackle the huge global challenges - but also leverage the exciting opportunities - that we face. One concrete way they can do this is by harnessing citizen-generated data to monitor, promote and drive SDG progress. New citizen-generated data initiatives are emerging all the time. What this resource aims to do, therefore, is convey how this data is already having an impact in practice, along with the different ways governments and civil society can further increase citizen-generated data's coverage, quality and utility for tracking SDG progress.

Who is this tool for and what does it aim to achieve?

This tool is for all stakeholders interested in ensuring effective monitoring and accountability for the SDGs, especially at the national and subnational levels, but also internationally. In particular, however, it will be useful for government representatives involved in the development of national SDG implementation and follow-up and review processes, including national statistical authorities (NSOs) and others with a specific mandate around the use of data and technology for decision making. This tool aims to improve the understanding and appreciation of the value of citizen-generated data amongst these actors. And by providing them with concrete examples of how it is already being used in practice to track progress on SDG-related issues, along with a number of recommendations about how to foster a collaborative approach between governments and those producing this data, it also hopes to stimulate government decisions and policies which actively support an inclusive, multifarious yet joined up approach to SDG monitoring and accountability.

Civil society organisations are also integral to harnessing a data revolution for sustainable development, providing alternative approaches and perspectives to data generation and use which can complement and contrast the work of governments to provide a fuller, more detailed picture of progress. Furthermore, they are often the stakeholders convening citizen-generated data projects, therefore this tool also provides case studies and recommendations to support the work of civil society organisations on this agenda. In doing so, it aims to boost the capacity and confidence of civil society organisations to advocate for the use of citizen-generated data in



monitoring the SDGs, especially at the national and subnational levels, via both its integration into official follow-up and review efforts by governments and through shadow reporting.

What is citizen-generated data and why is it important?

Citizen-generated data is data that people or their organisations produce to directly monitor, demand or drive change on issues that affect them. It is actively given by citizens, providing direct representations of their perspectives and an alternative to datasets collected by governments or international institutions.

It is generated in a number of ways, including surveys, SMS (short message service - text via mobile phones), phone calls, emails, reports, storytelling, sensors and social media. It can be quantitative or qualitative, structured or unstructured, and open or closed. It comes in a number of formats, ranging from numerical data in spreadsheets to text, audio or photos.

Typically, citizen-generated data is collected through a specific initiative that aims to have a positive social impact. For example, an initiative might address corruption, sexual harassment, service delivery, or environmental degradation. Anyone can set up a citizen-generated data initiative, including businesses (e.g. [Premise](#)), governments (e.g. the [Abra Community Employment and Development Program](#)) and international institutions like the UN (e.g. [GeoTag X](#)). In most cases, however, they are initiated by citizens and civil society organisations.

Citizen-generated data initiatives are created for a variety of reasons. They can harness the power of collective intelligence to contribute in areas where key data is missing – like the health of our oceans. [Plankton Portal](#), which uses crowdsourcing to locate and classify different photos of plankton to help scientists better understand the function and health of the ocean from small to global scales.

Citizen-generated data is a useful complement to institutional data, not a replacement for it. Nevertheless these initiatives can also respond to concerns about the accuracy and quality of government data being produced. [Float Beijing](#), for example, gathered citizens in the city to build air quality sensors attached to kites that could produce an accurate, timely dataset on air quality in the city because the Chinese government wasn't publishing sufficient air quality information.

In other cases, citizens collect qualitative data to raise awareness of a topic that isn't getting enough attention from institutions – like [HarassMap](#), which collects experiences of sexual

harassment in Egypt to raise awareness on this important issue. Sometimes citizens are simply better placed to gather data on a particular topic. For instance, [Check My School](#), a participatory public education monitoring program in the Philippines, enables parents to send in feedback about schools via SMS, twitter and other media, also connecting them with the Department of Education to help inform policy making.

International NGOs are also helping communities to harness the power of citizen-generated data. World Vision's [Citizen Voice and Action](#) is a “social accountability” methodology which aims to improve the dialogue between communities and government in order to improve services (like healthcare and education) that impact the daily lives of children and their families. After learning about their rights, communities produce data which compares their lived reality of service delivery against the government's own commitments. This data is then used by the communities to influence decision makers to improve services. Similarly, international organisations are investing in citizen-generated data. [My World](#), for example, is a United Nations survey which asks individuals to rank the issues that matter most to them. This data was drawn on to inform negotiations and decision making on what the SDGs should be.

How is citizen-generated data being collected?

A broad range of approaches and technologies exist for collecting citizen-generated data, for example:

- Deploying monitoring equipment – including custom devices (e.g. [to map pollution](#));
- Mapping with “drones” or GPS devices (e.g. [to scrutinise land boundaries](#));
- Undertaking new surveys (e.g. [to measure literacy](#)) whether via more traditional household questionnaire formats or new tech-dependent formats like SMS and radio feedback mechanisms (e.g. [to measure attitudes to disease prevention](#));
- Combining multiple existing databases (e.g. [to count migrant deaths](#));
- Scraping and aggregating data from official sources (e.g. [to monitor official pardons](#));
- Cross-referencing official, news and social media sources (e.g. [to count police killings](#); [to assess public service delivery](#));
- Creating crowdsourcing mechanism in order to collect individual stories and reports from citizens and civil society groups (e.g. [to better measure marine debris](#); [to monitor economic conditions](#));
- Developing microtasking platforms to utilise online assistance in performing tasks that require human cognition (e.g. [to monitor deforestation](#); [to assist in disaster relief efforts](#));
- Social or community-based auditing which empower citizens to undertake their own inquiries into issues that affect their lives (e.g. [to improve natural resource planning and management](#));

- A combination of more than one of these approaches (e.g. [to map the supply of and access to water at district level](#))



Challenges around the collection and use of citizen-generated data

Despite the immense potential of citizen-generated data, a number of both real and perceived challenges exist regarding its collection and use. While these are not insurmountable, and significant progress has been made on many of these issues through the work of initiatives such as [DataShift](#), considerable and continued effort from government, civil society and other stakeholders will be required to get the most out of this innovative but complex data source:

Coverage

This refers to the number and geographical distribution of citizen-generated data initiatives, along with the degree to which their thematic focus corresponds with the many SDGs targets and indicators. While citizen-generated data initiatives on new topics are emerging all the time, and a number of projects which have been successful in one location are being rolled out in others, increasing the coverage of these projects across more countries and SDG-focus areas remains a major challenge, especially to comprehensive shadow reporting. And while technology's potential to strengthen transparency and accountability is well recognised by government and civil society alike, practical obstacles related to infrastructure, human-capacity and resourcing remain significant, especially in developing countries. However these challenges should not necessarily be an impediment to collaboration between existing or new citizen-generated data projects and government authorities (especially at the local level) on a

case by case basis. Furthermore, many lower-tech and lower-cost citizen-generated data initiatives, such as those leveraging SMS and community radio, are producing great results and possess huge potential for scaling up to other locations and issues.

Representivity

Sparse coverage and the wide range of methodologies and metrics used mean that citizen-generated data projects, such as crowdsourced data or citizen report cards, will often not be participated in by a representative sample of the whole population. Yet the stringent participant selection rules often pursued to achieve representativity mean that this may never be possible, or even desirable, given that citizen-generated data projects are, by their very nature, a different approach to assessing progress. For example, citizen-science initiatives which leverage collective intelligence to solve a specific problem, or projects which publicise qualitative stories from communities on the topics which most affect their lives, do not need to be representative to enhance our understanding of progress against SDG-related issues. Furthermore, the localised nature of most citizen-generated data projects is exactly why they add so much value, as they shed light on what is actually taking place in different communities, which can be a far more useful tool for policy making than data based on national averages.

Credibility

There are currently a lack of standards or agreed good practices for citizen-generated data collection and use, meaning that quality and reliability of the data produced can be variable. This has contributed to perceptions that citizen-generated data often lacks credibility; something which is at times reflected in government attitudes towards using or integrating it into their own datasets. The challenge (but also opportunity), therefore, is to help citizens and their organisations access and adopt more rigorous methodologies for the collection and use of data. A top-down approach to defining data structures, which prioritises standards over national accountability imperatives, risks wasting precious resources and fracturing national civil society. However a bottom-up approach, driven solely by national priorities, risks frustrating cross-country comparisons, and missing opportunities for capacity development and resource sharing across national contexts. Further work will therefore be required to plot a middle ground between these two poles.

Comparability

At present, there is today no easy method for comparing citizen-generated data collected by different actors and in multiple countries - often collected according to different methodologies, strategic priorities and cultural and political contexts. Similarly to credibility, such comparability might be accomplished through the development of data standards for particular SDG targets, but this approach is could counteract the further development of flexible, bottom-up

citizen-generated data projects that specifically respond to local priorities. Furthermore, experience from fields such as the [International Aid Transparency Initiative](#) (IATI) suggest that such a process would demand very significant resources, time and expertise from participating organisations. Comparability might also be achieved through technical solutions for harmonising data sets with disparate data structures, however there is no existing practice to indicate how feasible this might be. However the SDGs provide a clear framework and therefore opportunity for working towards greater comparability, especially with regards to feeding data from the local level into the monitoring of progress at the national level.

Using the data

The raw and unbounded potential of technology holds a powerful allure for both governments and civil society. But as mentioned above, issues around credibility and comparability can be a major barrier to it actually being used to inform decision making, especially for governments. But challenges around the usability of citizen-generated data also apply to civil society. Many projects can fail to adequately consider how the information and datasets they produce will actually be used, whether this is via civil society campaigning strategies or feeding into local, national or global accountability processes. The promise of cheap and easy access to data, evidence, documentation strategies and global audiences is increasingly apparent to civil society organisations, even those working with the most limited access to information technologies. This may be due in part to the fact that online initiatives are by their very nature highly visible, and when also novel and innovative, are quick to capture the imagination of international networks and conference circuits. Easy access to popular platforms such as Ushahidi and Frontline SMS also contribute to this; the simplicity of making a map can easily distract from the difficult project strategising and political heavy lifting that goes on behind any impactful mapping endeavour.

PART II - Citizen-generated data in the context of the SDGs

To meet the ambition of the new SDGs it is essential that they are matched by an equally comprehensive and inclusive monitoring and accountability framework. While National Statistical Offices (NSOs) and governments will be the primary bodies responsible for monitoring SDG progress, data being produced by other actors will also play a crucial role in providing a robust and accurate picture of progress at all levels. This of course includes citizen-generated data, which, as mentioned in the ‘What is citizen-generated data and why is it important?’ section above, is able to convey unique perspectives and reveal issues that may be imperceptible from analysis of other other sources of data.

The different ways citizen-generated data can contribute to the SDGs

Filling data gaps and capacity

Only 42% of the global indicators agreed by governments to measure the SDGs are 'Tier I', meaning that they have an established methodology and regularly accessible data. And further investigation by the Center for Global Development has shown that data on only 62% of Tier 1 indicators – or 25% of all indicators – could be found online in a publicly accessible format.² And for Tier II indicators (an established methodology but not regularly produced data) and Tier III indicators (no established methodology) there is even less data available. Citizen-generated data can therefore complement official sources of data, fill data gaps that exist in a timely way and supplement - or even help to verify - official reporting when data quality is insufficient. It can help take the burden off NSOs whilst ensuring that we're comprehensively measuring progress towards the SDGs, at all levels. In particular, citizen-generated data can help provide an accurate snapshot of progress in local contexts, including amplifying the perceptions and voices of those typically marginalised and hard to reach.

Fulfilling commitments to multi-stakeholder partnerships

The 2030 Agenda calls upon all stakeholders to support the delivery of the SDGs. Collaboration between governments and citizen-generated data projects is therefore a clear way of turning this rhetoric into practical action. Furthermore, joined up monitoring efforts would likely lead to the creation of structures and a political culture that would help to engender a multi-stakeholder approach to other processes such as policy making and implementation.

Driving Innovation and build capacity

Innovation will be richest when it involves a diverse range of actors working together as part of an open and dynamic ecosystem of data production. Collaborative working between governments, NSOs and citizen-generated data producers can also help build one another's capacities, skills and shared practices, especially if secondments and fellowships are utilised.

Broad ownership and accuracy of data

National ownership of the SDGs agenda is about much more than state ownership; pluralistic, inclusive data production will also mean data ownership across society and help make public engagement in the SDGs agenda more meaningful. This is especially true for citizen-generated data, which requires direct, active participation from individuals and communities.

Citizen-generated data can also help improve the accuracy and impartiality of official reporting, and raise the alarm if these processes become politicised. This will play a key role in ensuring

² <http://www.cgd.org/blog/sdg-indicators-serious-gaps-abound-data-availability>

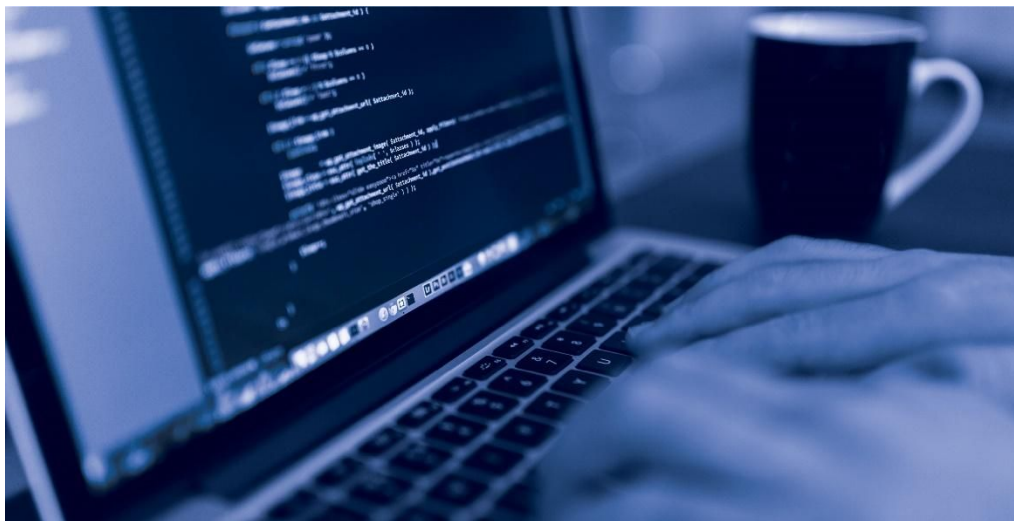
legitimacy of our collective data, and painting a truly accurate picture of progress towards the SDGs.

Strengthening accountability

Policymakers not only need data to make decisions, but civil society, opposition politicians, activists and the media need it to hold them to account. Non-official data offers a crucial check and balance that can help ensure that official data portrays the genuine reality within society. Especially when it comes to issues like justice, the rule of law or human rights, alternative sources of data can be particularly beneficial, albeit somewhat challenging politically in many circumstances. Use of a balanced range of data sources, including citizen-generated data in particular, could be important to build public trust and credibility in the SDGs and how they are being monitored.

Shadow monitoring

In addition to its incorporation into government SDG monitoring efforts, citizen-generated data can also be a key resource for civil society organisations engaging in shadow reporting processes. Given that shadow reporting is not necessarily bound by the national level follow-up and review priorities and structures outlined by governments, it can cast light on topics and populations at risk of being left behind.



Using citizen-generated data in the Agenda 2030 follow-up and review process

The 2030 Agenda contains much positive language about creating an inclusive framework for action on sustainable development at all levels. On the follow-up and review process in particular, it states that the SDG monitoring should be rigorous, based on evidence, timely, reliable and disaggregated by a different groups in society - all of which citizen-generated data can make a crucial contribution to making a reality.³ And while there is little concrete commitment to the creation of specific mechanisms that would enable civil society and citizen-generated data projects to actively contribute to this process, there is therefore a strong mandate for governments to explore, design and implement them at the global, regional, national and subnational levels.

Local level

Citizen-generated data could be used to support improved monitoring of existing sustainable development priorities and service delivery at the local level, as well as the effectiveness of new SDG-specific policies implemented by local government.

National level

Citizen-generated data (especially if aggregated from the local level) could feed into national review mechanisms to create SDG-related baselines which directly reflect the realities experienced by people on the ground. This could include input into national stakeholder (shadow) reports and official government reports on SDG progress.

Regional level

Citizen-generated data could be used to bolster regional peer review processes which would enable inter-country learning, spurring improved policies and greater SDG progress.

Global level

Citizen-generated data could inform the dialogue on SDG progress facilitated by the High Level Political Forum, including potential thematic reviews. It could be included in the Global Sustainable Development Report and/or in a parallel civil society-led shadow reporting process

The ideal SDG monitoring system would therefore draw on multiple sources of data in a complementary way, leveraging the comparative advantages of each data type.

Despite its great potential, many challenges remain to effectively leveraging citizen-generated data initiatives for monitoring the SDGs. For instance, to provide meaningful metrics on

³ More analysis:

<http://civicus.org/thedatashift/blog/post-2015-zero-draft-where-do-we-stand-on-citizen-generated-data/>

countries' progress towards development goals, the number of initiatives actively reporting on specific issues and in specific countries must increase dramatically. And as mentioned in Part I, both the comparability and credibility of citizen-generated data also pose challenges, given the wide range of methodologies and metrics used. In addition, many citizen-generated data initiatives are very specific to local contexts – which makes aggregating and using this data to inform national or international policy decisions difficult.

Citizen-generated data for shadow reporting

Efforts to track progress against the SDGs which take place independently of government-led efforts to do this, is often described as 'shadow monitoring' or 'shadow reporting'. Shadow monitoring represents another option for using citizen-generated data to track progress against the SDGs. Rather than choose between only integrating citizen-generated data and approaches into official reporting and some form of shadow monitoring independent of government, it will be beneficial to pursue both. Different circumstances will require different approaches – but we do not need to be limited by the mechanisms and indicators of UN's follow-up and review process and government-led monitoring efforts.

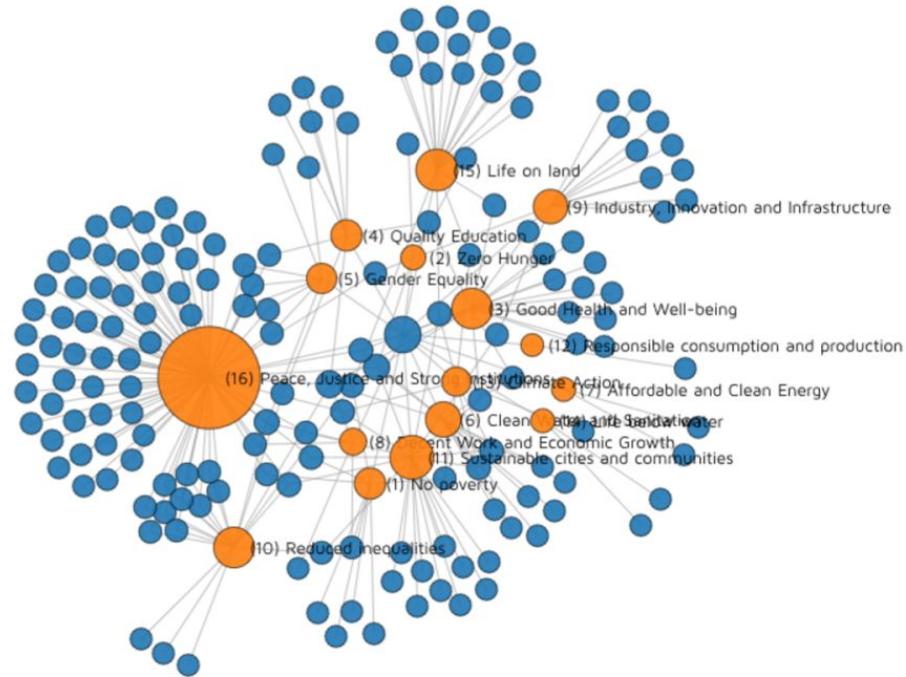
Global shadow reporting initiatives, such as a unified global citizen-generated data hub or dashboard, may be possible, especially if this focuses on a number of priority SDGs in the first instance to test both the practicality and utility of such an approach. However shadow reporting is likely to be more comprehensive, realistic and, ultimately, useful at the country-level.

How citizen-generated data is already having an impact on SDG-related issues

Given the comprehensive nature of the SDGs, virtually all citizen-generated data projects can potentially be useful for tracking progress against at least one target, with some producing data relevant relevant several targets, and not necessarily always under the same Goal. Nevertheless, the vast majority of citizen-generated data projects are not explicitly linked to the SDGs at present. The extent of the modifications required to address this will vary from case to case and be dependent upon whether an adequate enabling environment is created by governments and international institutions like the United Nations. More information about ways to create this enabling environment, and a case study from Kenya where citizen-generated data is being leveraged explicitly to measure progress towards SDG 5 on gender equality, are discussed in Part III.

Citizen-generated data projects mapped against the SDGs

While not an exhaustive list, this [network visualisation](#) shows how a sample of citizen-generated data projects from around the world correspond with the 17 SDGs.



Network visualisation showing citizen-generated data initiatives (blue dots) as they are connected to UN Sustainable Development Goals

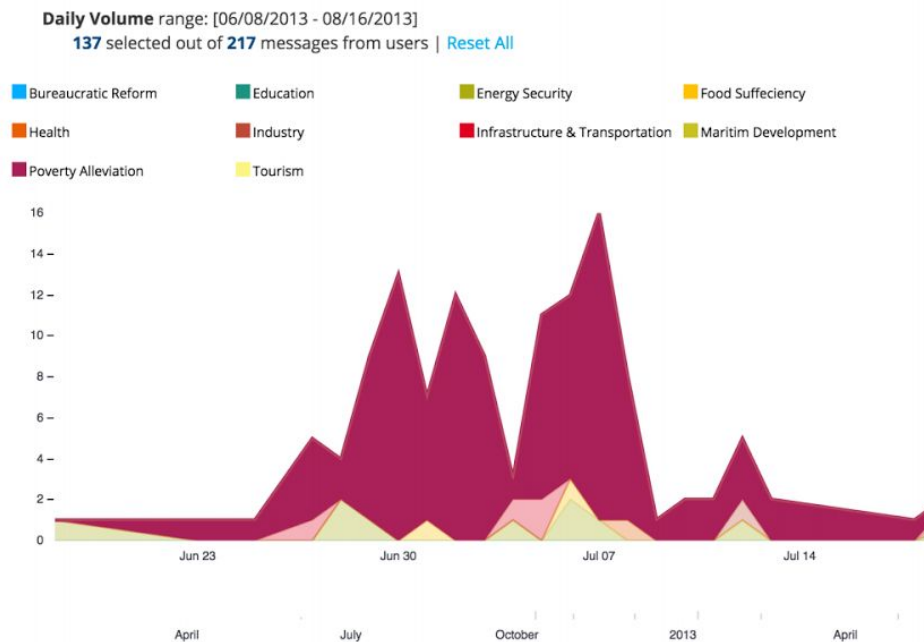
Case Studies

[Mining Citizen Feedback Data for Enhanced Local Government Decision-Making \(Indonesia\)](#)

In Indonesia, both central and local government are looking for ways to collect and understand citizens' opinions on public services and development to support better evidence-based policy making. Pulse Lab Jakarta designed Mining Citizen Feedback Data for Enhanced Local Government Decision-Making, a project that combines data on citizens' opinions from multiple sources - including LAPOR!, a local feedback mechanism - in order to provide structured insights for local decision-makers. The project highlights the potential of existing datasets, but also the need to integrate new information management systems into national and local governance.

Related SDGs:

Goal 11 (Sustainable Cities and Communities) - Target 11.3 (By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries); **Goal 16** (Peace, Justice and Strong Institutions) - Target 16.6 (Develop effective, accountable and transparent institutions at all levels), Target 16.7 (Ensure responsive, inclusive, participatory and representative decision-making at all levels)



Dynamics of the volume of LAPOR! By the 10 national priorities. Source: UN Global Pulse⁴

How the project could support the monitoring and implementation of these SDGs

The Mining Citizen Feedback Data for Enhanced Local Government Decision-Making project strengthens local governance arrangements by making them more accountable, inclusive and responsive to citizens’ needs. Although the initiative has direct impact on Goals 11 and 16, it is potentially able to impact several more through citizen’s feedback on public services such as education (Goal 4) and health (Goal 3). Moreover, perception research can complement official data. For instance, even though a municipality may have high rates of school enrollment, public feedback can provide a wider assessment regarding the quality of education and challenges to be addressed.

⁴ http://www.unglobalpulse.org/sites/default/files/UNGP_ProjectSeries_Citizen_Feedback_2015.pdf

ForestWatchers (International)

ForestWatchers seeks to provide volunteer deforestation assessment for countries, regions or communities that do not have the necessary infrastructure or manpower to do so otherwise. It is therefore an example of collective action being used to complement existing strategies, enabling governments to determine the effectiveness of their conservation actions

Related SDGs:

Goal 15 (Life on Land) - Target 15.1 (By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, ...), 15.2 (By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally), 15.5 (Take urgent and significant action



to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species) ; **Goal 16** (Peace, Justice and Strong Institutions) - Target 16.6 (Develop effective, accountable and transparent institutions at all levels), Target 16.7 (Ensure responsive, inclusive, participatory and representative decision-making at all levels).

How the project could support the monitoring and implementation of these SDGs

The first step to tackle a problem is to know its extent, and many developing countries do not have enough resources to effectively track deforestation rates. A project like ForestWatchers can thus support official governmental measures, include the setting of baselines, by providing a free and collaborative tool to ensure conservation and sustainable management of forests. Moreover, the initiative encourages active citizenship and ownership, allowing for civil society to play an important role on monitoring of this SDG area.

Uwezo (Kenya, Tanzania and Uganda)

Uwezo conducts annual, large scale household-based assessments that are citizen-led but statistically representative, to measure actual levels of children's literacy and numeracy across Kenya, Tanzania and Uganda.



Related SDGs:

Goal 4 (Quality Education) - Target 4.1 (By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes), Target 4.6 (By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy); **Goal 8** (Decent Work and Economic growth) - Target 8.6 (By 2030, reduce the proportion of youth not in employment, education or training); **Goal 16** (Peace, Justice and Strong Institutions) - Target 16.7 (Ensure responsive, inclusive, participatory and representative decision-making at all levels)

How the project could support the monitoring and implementation of these SDGs

Uwezo is closely related to Goal 4 on education, more specifically to the targets on quality education and learning outcomes - an indicator many developing countries currently have inadequate data on. It's approach also has the potential to bolster efforts to measure Target 8.6, by supplementing official data on unemployment and education enrollment rates, to provide an assessment on the quality of the training young people are receiving, for instance. The project can also be seen as contributing to improving local governance, by engaging civil society in the monitoring of public services.

Premise (International)

Premise is a citizen-generated data initiative that uses mobile phone collected data to track the price, quality, availability and other metrics of goods and services, in order to monitor the economic conditions in real time. It sells its citizen-generated data to clients, such as Bloomberg and Standard Chartered Bank, that want a faster understanding of consumer prices and inflation than official government statistics supply. It also has clients such as the UN and the World Bank that want a better sense of economic conditions on the ground and whether development money is actually getting to its destination. At the same time, Premise is giving away its data for free to nonprofits and academic institutions, and plans to continue building products on top of its data platform

Related SDGs

Goal 8 (Decent Work and Economic Growth) - Target 8.3 (Promote development-oriented policies that support productive activities...), Target 8.a (Increase Aid for Trade support for developing countries); **Goal 16** (Peace, Justice and Strong Institutions) - Target 16.6 (Develop effective, accountable and transparent institutions at all levels)

How the project could support the monitoring and implementation of these SDGs

As premise leverages the power of real-time economic information to support different stakeholders in making better and more informed choices, its methodology could therefore be an incredibly useful tool for economic policies and budgetary planning for governments at all levels. This applies to both specific efforts to drive growth, as per the targets under Goal 8, as well as general planning and implementation of overall SDG strategies, ranging from efforts to address food security, to ensuring effective health care provision. The premise approach can also contribute to improved governance by enabling greater coordination of economic data collection and metrics across the whole range of government institutions.

PART III - Practical ways to leverage citizen-generated data for SDG monitoring and accountability

How to foster a collaborative approach between govts and civil society/citizen-generated data projects (enablers)

Why is a collaborative approach so important?

A collaborative approach between governments, civil society organisations and other stakeholders provides the greatest opportunity to address the challenges to effective SDG monitoring outlined in Part 1 and ensure that citizen-generated data is able to live up to its immense potential. In particular, a collaborative approach is beneficial for a number of reasons:

- Achieving impact and scale
- Identifying and filling data gaps
- Harmonisation of data
- Driving Innovation
- Public ownership and engagement on SDGs
- Longevity and sustainability

What are the key ingredients for a collaborative approach?

- A local or national administration's interest in new approaches to public governance (e.g. [Mining Citizen Feedback Data for Enhanced Local Government Decision-Making in Indonesia](#))
- Political commitment to a multi-stakeholder approach, accompanied by institutions to facilitate it (e.g. [Pulse Lab Jakarta](#))
- Active engagement of local authorities by the citizen-generated data project. [Premise](#) is also a leading innovator in its involvement of decision-makers. From financial services to tech, from retail to public service, these decision-makers are involved from the beginning in defining the issue and formulating the questions they need answered. For example, which populations in Kano are being deprived of electricity or are shelves stocked with the right product in Harare or is it counterfeit?

What does collaboration look like in practice?

Case Study 1 - Government and citizen-generated data collaboration on weather monitoring in the UK

Within the realm of citizen science, governments and avid citizens have been collaborating for a long time. Specifically within weather and climate data, data gathered by individuals has long been an essential part of many national weather forecasting institutions. In the UK, for example, citizen scientists contribute to the data gathered and used by the



Met Office, which is the UK's national weather service and one of the world's leading providers of climate services. Citizens have contributed to historical data via the [Old Weather](#) initiative, allowing the effects of global warming over time to be observed and analysed more clearly. The



project uses the power of the crowd to transcribe weather observations written in historical shipping logs recovered from archives around the world.

Amateur weather observers also contribute regularly to weather data used by the Met Office and by climate scientists, using sensors to measure variables such as rainfall and air pressure. The [Climatological Observers Link](#) (COL) provides guidance on data formats and standards to follow, and observers are encouraged to follow these protocols so that the data they upload can be easily integrated with other data sets. The monthly bulletin produced by the COL, collating the data that they received in the preceding month from serious weather observers, is considered to be of sufficiently high quality that it is archived by the UK Met Office.

The Met Office also has its own site where it gathers observations from weather observers across the UK, called the [Weather Observations Website](#), or WOW15. The site allows for both manual inputs – ie. without any special equipment necessary – and automatic data inputs, from observers who have access to compatible Automatic Weather Stations. WOW is a collaboration between the Met Office, the Royal Meteorological Society, and the UK Department of Education.

The project offers a number of concrete examples of some of the potential benefits drawn from government and civil society collaboration. Notably, the data gathered by amateur observers is, once uploaded to the site, “kept indefinitely” – so, the data will be kept online even if the observer who contributed the data stops contributing. Although this policy is being reviewed every twelve months, for now at least, it provides sustainability to the data created through this initiative. For the contributors, this brings a number of benefits: knowing that the data they as individuals are collecting will be brought together with other relevant data sets, and having their data kept online in an easy to find repository. Extra motivation to the contributors is given by the Met Office’s official and public recognition of the observers’ data as a legitimate and useful data source.

For the Met Office, being able to easily compare their “official data” with data sets coming in from serious amateur observers allows them to verify that what they are receiving and reading is accurate, and gives them alternative measurements for forecasts (perhaps from areas where less coverage is available). Recognition of the initiative’s importance in the UK has led the Australian government’s Bureau of Meteorology to partner with the UK Met Office to build a [WOW site for Australia](#). This demonstrates that, when the circumstances are right, initiatives of this sort can be replicated across different geographic regions

Case study 2: [Concerned Citizens for Abra for Good Governance \(Philippines\)](#)

Concerned Citizens for Abra for Good Governance, a local citizen-generated data initiative from the Philippines which monitors the completion and quality of public infrastructure projects has had a number of high profile successes. Due to the work of Concerned Citizens, there have been cases where public officials have been prosecuted, sanctioned and dismissed from service because of the anomalies committed by them or the technical flaws they exposed in a number of projects.



Unfortunately, following the end of the local authority's Community Employment and Development Program, some crucial elements to the success of the Concerned Citizens project, specifically government support and involvement, dissolved over time. Come the mid-1990s onwards, local officials no longer waited for Concerned Citizens' monitoring report before paying contractors. This reveals how important formal collaboration between civil society and government can be for citizen-generated data projects to have their data used and ultimately have an impact.

Case Study 3: [Promise Tracker](#) (Brazil)

Promise Tracker is a mobile data collection application that enables citizens to monitor the performance of their local governments on issues that matter to them. The application has been used by local organisations and communities in nine Brazilian cities, resulting in improvements to the construction of elementary schools in Sao Luis, the accessibility of bus stations and accuracy of bus arrival times in Belo Horizonte, and the follow-through on promises made by the Mayor of São, Paulo Fernando Haddad.



The project found that evaluating local officials and offices' performance can be framed as a "value-add" rather than a detrimental stand-off between citizens and government. Moreover, where public, private and community members were involved in the project, the team

found that bringing all actors together in an assessment of the data showed the local government “that this type of monitoring could benefit a range of other services, and help City Hall stay in front of issues affecting the city that they may not have the man-power to actively assess.”¹¹ Ultimately, the process can result in a huge win for all, setting the stage for future collaborations.

Case Study 4: [Uwezo](#) (Kenya, Tanzania and Uganda)

Uwezo conducts annual, large scale household-based assessments that are citizen-led but statistically representative, to measure actual levels of children’s literacy and numeracy across Kenya, Tanzania and Uganda.

While the survey design and household sampling had to be elaborated with official institutions, volunteers and civil society organisations in collaboration with Uwezo conducted the data gathering process, evaluation and editing of reports independently. In order to select “trustworthy” volunteers, Uwezo collaborates with high official staff members who recommend four organisations per district, from which Uwezo chooses



one. Based on the recommendations of these organisations, Uwezo chooses two volunteers who have a good reputation within the community and who have the necessary education to conduct surveys. These volunteers are sent to 20 randomly sampled private households per census district. Uwezo presented its annual report to the Ministry of Education and findings were discussed before they were published. As one national coordinator for Uwezo argues, the aim was not to shame authorities but to highlight issues in a way that was supported by well-documented and officially recognised evidence.

Uwezo’s work has contributed to an institutional reappraisal about how literacy and numeracy is officially recognised and measured. Several national ministries of education now explicitly use, acknowledge and draw on Uwezo’s work. Uganda’s officials have shifted their focus from quantitative measures to learning outcomes, as per Uwezo’s agenda.

Several governments in East Africa have taken steps to support early learning that corresponds with another one of Uwezo’s objectives. The Uwezo project exemplifies how civil society organisations can engage with public institutions in order to obtain support for citizen-generated data methods and protocols and to advance the state of evidence around issues they work on.

How governments can show leadership

- Provincial administrations consider integrating real-time data from their formal feedback systems into the dashboard, as opposed to mining historical data.
- The integration of additional data sources should also be considered when designing government data dashboards.
- Whenever possible, provincial administrations should publish this type of citizen feedback dashboard in order to enhance transparency and help constituents understand how their feedback is processed.
- Provide clear mechanisms for linking citizen-generated data and civil society data for specific SDG monitoring efforts. Currently many civil society organisations and citizen-generated data projects aren’t aware of how their works corresponds with the SDGs or are struggling to see how their data and expertise could and should be integrated into SDG monitoring, from the community all the way up to the national level. This can be solved by governments being proactive and designing – in collaboration with civil society - the processes/portals/tools to enable them to do so

Possible collaborative activities

Data sets mapping

An obvious first step towards understanding how citizen-generated data can complement what is already included in a data portal is by mapping what data is available both in and outside of that portal – Govts and civil society should do this collaboratively at the national level Basing such work on conversations between both civil society and government actors about the nature and purpose of the mapping (what to include, who the potential users are, where similarities and differences lie) can pave the road for further collaboration down the line, establishing trust and providing guidelines for later decision-making. Mappings can also be used to identify the data that is not yet available, but which is in demand among government, civil society, or the users of data portals. In some cases, government data portals provide a specific page for users to ‘request’ data, which provides useful insights into the type of data that is in demand

Multi-stakeholder workshops to jointly developed data collection and use guidelines

Workshops are a strong practical tool for establishing the criteria for data set inclusion in government portals. This can be done on the basis of, or in parallel with a mapping exercise, and should be structured to ensure that civil society perspectives on data standards are well accounted for. Organizing events around training or discussion on specific technical issues, such as data structures, collection methods and data usage for development monitoring, can be an effective way to ensure broad participation and strengthen collaboration. Such an approach has the added value of building civil society statistical and methodological capacities, while also helping governments to identify novel ways in which non-representative citizen-generated data can complement and otherwise strengthen official statistics.

Working towards the development of standards

Methodologies for collecting and structuring data within specific thematic areas, so that it may be easily compared without harmonization. Unlike harmonization, which approaches comparability from a retroactive perspective, standardization is a forward-looking approach, as standards need to be developed collectively, before data is collected.

Secondments and fellowships

Secondments and fellowships between civil society and governments to strengthening dialogue and collaboration around monitoring data. Managers of government data portals will likely need to specifically allocate resources in order to incorporate a significant number of citizen-generated data sets, and this work may often fall to small teams that are already overworked and underfunded. Where feasible



and resources can be secured (also through third parties), options should be explored for establishing fellowships or secondments for staff from civil society organizations producing data, to work within open data portal institutions, specifically on the process of incorporating citizen-generated data sets. This arrangement could be a powerful mechanism for strengthening dialogue and collaboration around monitoring data. It could also increase technical capacities among civil society organisations, even when implemented on a very short-term basis.

Collaborative monitoring

Collaborative monitoring which goes beyond just the integration of separate civil society/citizen-generated data datasets into official platforms/portals. The entire premise of this piece on government hosting assumes that civil society and government data can be useful for monitoring and enhancing development programs. Following, or in parallel with, efforts to include citizen-generated data sets, government and civil society actors should collaborate on efforts to monitor and enhance government and civil society development initiatives through the application of multiple data sets. This may involve the development and identification of novel monitoring methods and data analyses.

Capacity building for data collection and monitoring

Financial support and resources should be put towards building the capacity of civil society and local government staff, including communities and individual women, men and children, to collect, access, and use data for decision making. This will empower civil society to provide specific recommendations in Post-2015 reports and consultations and to monitor progress.

Options for integrating citizen-generated data into government datasets

- Investment in further data collection operations (e.g. with the Citizen Sense project);
- Adoption of the proposed data collection practices (e.g. with The Counted);
- Engagement with citizen-generated and civil society data collection (e.g. with Uwezo or the Community Drones projects);
- Official support for the proposed data collection practices (e.g. with WaterAid);
- Endorsement and recognition for citizen-generated and civil society data collections (e.g. with Civio's database of pardons)

How using citizen-generated data for joined-up SDG monitoring could work in practice

Case Study: SDG 5 (Gender Equality) in East Africa

In Kenya and Tanzania, DataShift is pursuing a proof of concept for drawing on multiple sources of data, particularly citizen-generated data (citizen-generated data) to measure progress on Sustainable Development Goal number 5 (SDG 5) on 'achieving gender equality and the empowerment of women and girls.' In pursuing this area of work DataShift seeks to demonstrate the value and credibility of citizen-generated data for monitoring and delivering on SDGs at the sub-national, national, regional and global levels; identifying the appetite for, opportunities for and constraints to harmonising and comparing citizen-generated data and supporting the development of models and frameworks for practically collecting and using citizen-generated data to further sustainable development over time.

The project is part of a much broader initiative by [DataShift](#) that seeks to scale-up CIVICUS programmatic activities to build the capacity and confidence of civil society to generate and use data to monitor, demand and drive progress on sustainable development, including the Sustainable Development Goals (SDGs). The broader SDGs monitoring initiative has three distinct but related objectives: 1) to demonstrate concretely how multiple sources of data, particularly citizen-generated data, can be harnessed to monitor SDG progress; 2) to build the interest, capacity and collaboration of civil society in generating and using data to monitor SDG progress; and 3) to actively support the establishment of the Global Partnership for Sustainable Development Data (GPSDD), focusing particularly on ensuring substantial outreach to, representation of, and support for civil society in the partnership.

To fulfill objectives one and two above the project is being implemented at two levels in Kenya and Tanzania; 1) National level and 2) Sub-national level.

National Level – Kenya & Tanzania

At the national level in Kenya and Tanzania there is widespread recognition that the 17 SDGs offer an unprecedented opportunity to synergise efforts and tackle the unfinished business of the MDGs. This includes work on SDG 5 focused on “[Achieving gender equality and empowering all women and girls](#)” and its constituent targets and indicators. The integrated nature of the goals and targets however calls for new innovative approaches that harness data through multi-stakeholder initiatives. Achieving SDG 5 is interdependent and connected to tracking the progress in the achievement of gender specific indicators that are integrated in all the 17 SDGs.

The project is focusing on a multi-stakeholder approach to monitor and drive progress on gender targets and indicators under Sustainable Development Goal (SDG) number 5 while keeping tabs on other gender-related targets and indicators in the other SDGs. The key outcome will be an annual multi-stakeholder report on the “status of gender equality and the empowerment of women and girls in Kenya and Tanzania” Activities here include;

- Research on gender data sources and gaps
- Aggregation of multiple sources of data and information to monitor progress on SDG 5 and other gender-related targets and indicators in the other SDGs using citizen-generated data
- Facilitating and coordination of multi-stakeholder efforts and engagements on gender equality through national thematic forums from emerging findings from research and data
- Development and publication of a multi-stakeholder status of gender equality and the empowerment of women and girls in Kenya and Tanzania

- National civil society gender campaigns for inclusion in the formal government follow up and review of SDG 5 and other gender-related targets and indicators in the other SDGs, including domestication of the targets and indicators in sub-national and national development policies and processes
- Development of an online platform that presents citizen monitoring data by country and SDGs

Sub-national Level – Kenya

In Kenya, the “Global Goals Local Impact” project is being implemented in Lanet Umoja location of Nakuru County in partnership with the Open Institute, Chief Kariuki (aka the Tweeting Chief - a local government administrator), Development Initiatives, and other partners. The initiative is domesticating gender-related targets and indicators in 5 SDGs (1, 3, 4, 5, and 6) that have been identified and prioritised by the citizens of Lanet Umoja – drawing on multiple sources of data, particularly citizen-generated data to monitor implementation and progress on the targets and indicators. The project is moving beyond the collection of citizen-generated data to empower the community to undertake an advocacy campaign targeting the Nakuru County budget making process with a view of attracting resources to gender-related initiatives that empower women and girls.



Chief Francis Kariuki's ("the tweeting Chief")

It will focus on primarily meeting the first two objectives highlighted above, and further narrow its focus to directly work with local level actors, including local administration and citizens. The lessons, learning, and emerging replicable model will be shared widely online and through the Global Partnership for Sustainable Development Data to encourage replication and scaling - thereby meeting objective three. It will be documented as a practical case study of how SDGs can support the achievement of real impact to local communities, and further demonstrate the practical use of citizen-generated data, and how collaboration among multiple local level actors can be fostered.

At the highest level the project is:

1. Raising awareness on the importance of domesticating SDG 5 and related gender targets and indicators in the other four SDGs (1, 3, 4, and 6) and integrating them in local development projects and initiatives.
2. Better organising the community to coordinate among themselves to harness citizen-generated data to achieve progress on gender equality and the empowerment of women and girls through their priority SDGs (1, 3, 4, 5, and 6).
3. Yielding credible citizen-generated data that is made publicly available to support evidence-based citizen engagement with the county and national government and drive sustainable development at the community level.
4. Strengthening the capacity of the Lanet Umoja community to better understand the use of data in initiating advocacy campaigns that channel county government resources to their prioritised development projects.
5. Seeking to yield and widely share a practical, replicable, and scalable model for community level domestication of SDGs, and the effective monitoring and review of progress by citizens.

The project will be documented as a practical, replicable, multi-stakeholder model for community and local government administration empowerment and leadership in the implementation, follow up and review of local level progress on SDG 5 and related gender targets and indicators.

Sub-national Level – Tanzania

In Tanzania, the “Global Goals Local Impact” project will be implemented in partnership with Restless Development at the district level. It will focus on a youth-led gender approach in a

selected district or districts in Tanzania where data-driven/evidence-based campaigning can strengthen the capacity of youth to participate and influence key decisions or work with local authorities to systematically resolve thematic (water, health, education, agriculture e.t.c) issues that matter to them the most.

We envision the use of existing official data, but prioritise strengthening the capacity of youth to collect citizen-generated data (using mobile phones) on selected gender-related priority targets and indicators and formulate targeted campaigns to resolve challenges or strengthen on-going efforts using the data in a particular thematic issue of interest. The data will be anonymised and visualised on an online tracker and progress on the targets and indicators periodically monitored using scorecards that provide more information for more campaigns and connecting the youth with local leaders.

What are the options for more joined up approaches to shadow monitoring at national and global levels?

Case Study: Everyone Counts

Everyone Counts is a multi-partner initiative to test the efficacy of social accountability at scale. Citizen-generated data, which will be collected as part of the initiative, will be aggregated to monitor progress against the SDGs.

The initiative intends to scale existing interventions - like social audits and community scorecards (CSC), which are already widely used to improve social accountability and the quality of service delivery. However, these interventions are currently delivered by multiple organisations, using different methodologies and collecting different data, which poses a significant barrier to collecting meaningful data of significance at national level.

The data published by Everyone Counts will ensure that the voices of the most marginalised and disadvantaged, especially women and girls - who are often left behind - are included alongside data from national statistical departments when monitoring the SDGs.



Key resources

[Changing What Counts](#)

[Citizen-generated data and Govts: Towards a collaborative model](#)