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How can think tanks support the production and use of gender data?

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Abstract

Better data on women and girls' status can guide policies, leverage financial resources, and inform global priorities. In most policy circles, the notion of gender data is directly associated with the availability of sex-disaggregated data. While there is no denying that sex-disaggregated data has value and provides insights on the differentiated challenges that women and men face, not all data, nor data by itself, can always accurately portray the complexity of gender inequality in different contexts. Several questions need to be addressed to ensure that gender data offers the right perspectives to fight gender inequality: Is the data used to build indicators and measurement tools fit for purpose? Are gender biases and damaging preconceptions about women and girls' roles and needs shaping data collection and analysis? What are other aspects of women's lives not being accounted for through existing gender data? This paper reviews current debates on gender data from a feminist perspective to identify potential limitations of the data used for policymaking and identify possible ways to strengthen it. Using the concept of the data value chain, the paper brings attention to often-overlooked limitations that emerge when gender data is gathered, interpreted, and used. It also analyses the potential role of think tanks in each of these phases. Think tanks, as knowledge generators, brokers, and policy influencers, are particularly well-positioned to bridge the gender data gap.

Resumen

Tener mejores datos sobre la situación de las mujeres y las niñas puede ayudar a orientar las políticas públicas, aprovechar los recursos financieros e informar las prioridades globales. En la mayoría de los círculos políticos, la noción de datos de género está directamente asociada con la disponibilidad de datos desglosados por sexo. Si bien no se puede negar que los datos desglosados por sexo tienen valor y brindan información sobre los diferentes desafíos a los que se enfrentan las mujeres y los hombres, no todos los datos, ni los datos por sí mismos, pueden representar con precisión la complejidad de la desigualdad de género en diferentes contextos. Es necesario abordar varias preguntas para garantizar que los datos de género ofrezcan perspectivas adecuadas para luchar contra la desigualdad: ¿Los datos utilizados para construir indicadores y herramientas de medición son adecuados para su propósito? ¿Qué tan importantes son las ideas preconcebidas sobre los roles y necesidades de las mujeres y las niñas a la hora de recopilar y analizar los datos? ¿Qué otros aspectos de la vida de las mujeres no se tienen en cuenta a través de los datos de género existentes? Este documento revisa los debates actuales sobre datos de género desde una perspectiva feminista para identificar las posibles limitaciones de los datos utilizados para la formulación de políticas e identificar posibles formas de fortalecerlos. Utilizando el concepto de la cadena de valor de los datos, el documento destaca las limitaciones que a menudo se pasan por alto y que surgen cuando se recopilan, interpretan y utilizan datos de género. También analiza el papel que pueden tener los think tanks en cada una de estas fases. Los think tanks, como generadores de conocimiento, intermediarios e influenciadores de políticas, están particularmente bien posicionados para cerrar la brecha de datos de género.

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Introduction

It is challenging to solve a problem if its magnitude is unknown. A lack of data keeps the realities and needs of vulnerable people out of the decision-making tables. When data is not available, people's realities become invisible, decision-makers allocate funding inefficiently, and policies are designed that overlook actual needs. The need for a 'data revolution'¹ has been part of the global discussion for decades and gained traction when the United Nations Secretary-General asked an Independent Expert Advisory Group to make concrete recommendations about the transformative actions needed to address the challenge of data invisibility and data inequality, and to increase the use and impact of data (Jahan, 2014).² For the data revolution to be truly transformative, though, it needs to address an often overlooked issue: data gaps that have kept women and girls invisible (Badiee & Melamed, 2014).

Better data on women and girls' status can guide policies, leverage financial resources, and inform global priorities to ensure that they target those in need in the most effective manner (Levine, 2017; Stuart, Samman, Avis, & Berliner, 2015). For example, including gender considerations in labour statistics has shed light on assumptions about the different roles assigned to men and women in society and the use of their time and contributions to the economy, and has informed public debates and policy-making during recent decades (Mata Greenwood, 1991; Rubiano Matulevich & Kashiwase, 2018; Das & Kotikuta, 2019). The transformative power of data relies on the idea that the ability to measure and quantify women's needs would dramatically increase the capacity of researchers, decision-makers, and advocates to generate and implement gender-sensitive solutions to their particular challenges

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1. There are several definitions of the data revolution. In some cases, the data revolution refers to the data needed to respond to complex human development challenges, improvements in how data is produced and used, the need to close data gaps to prevent discrimination, and the development of new targets and indicators using existing and new data. Most recently, the data revolution is understood in connection with the emergence of new technologies that have resulted in massive amounts of data becoming available (big data). In this paper, both approaches are acknowledged; however, this paper does not conduct in-depth analysis of the connections and implications of technology and data.
 2. The recommendations made by the IEAG are published in the UN Report 'A World that Counts' (Data Revolution Group, 2014).

(Buss, 2015; Buvinic & Levine, 2016; Stuart, Samman, Avis, & Berliner, 2015). However, the availability of gender data, if it is not good quality data, is not always a synonym for better policies.

In most policy circles, the notion of gender data is directly associated with the availability of sex-disaggregated data. While there is no denying that sex-disaggregated data has value and provides insights on the differentiated challenges that women and men face, not all data (nor data alone) can always accurately portray the complexity of gender inequality in different contexts. An added challenge for gender data is its perceived neutrality. In a society where quantification is often linked to objectivity, statistics and related indicators are rarely questioned (Buss, 2015). However, several questions need to be asked to ensure that gender data offers the right perspectives to fight gender inequality. Is the data used to build indicators and measurement tools fit for purpose? Are gender biases and damaging preconceptions about women and girls' roles and needs shaping data collection and analysis? What aspects of women's lives are not being accounted for through existing gender data? Academic researchers and feminist scholars have taken up these questions, have raised attention, and have made recommendations to improve the quality of gender data beyond the 'measurement imperative' (Hay, 2012; Fuentes & Cookson, 2020).

There are significantly fewer discussions on these issues in policy circles and among data creators and users. This mismatch opens up the debate on bridging this gap to ensure that gender data is fit for purpose and is not reproducing power imbalances and gender biases. Think tanks, as knowledge generators, brokers, and policy influencers, may be particularly well positioned to bridge this gap.

With this in mind, this paper reviews current debates on gender data from a feminist perspective to identify potential limitations of the data used for policy-making and possible ways to strengthen it. Note that in this paper we use the [World Health Organization's definition of 'gender'](#), which is understood as 'the characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviours, and roles associated with being a woman, man, girl or boy, as well as the relationships with each other.' One limitation of this paper is that it does not cover non-binary identities (LGBTIQ+). There are significant gaps in data collection and use associated with the LGBTIQ+ community that have not been addressed and that require attention and specific analysis beyond the scope of this paper. However, we hope the discussions raised here can help increase awareness about the need for more inclusive and gender-sensitive data.

BOX 1: DATA IS NOT NEUTRAL

This paper is based on the idea that data is not neutral and that existing approaches to gender data often obscure and dislocate women's experiences of gender inequality (Fuentes & Cookson, 2020). Since data is not neutral, it is useful to see it as part of a value chain, meaning that data gains or loses value as it moves along two phases: data production and data use (Data2X, n/d). Recognising these steps and their implications for gender data can help identify strategies to strengthen its generation and uptake.

Seeing data as part of a value chain brings attention to often overlooked limitations that emerge when gender data is gathered, interpreted, and used. The paper then analyses the potential role of think tanks in each of these phases.

When data is not available, people’s realities become invisible, decision-makers allocate funding inefficiently, and policies are designed that overlook actual needs.

This paper has been informed by secondary sources of information, including academic literature, official reports from international organisations and non-governmental organisations (NGOs), reports from news outlets, and other resources. The paper is divided into four sections. Section 1 presents debates related to the use of gender data; it discusses progress achieved and identifies the blind spots of quantitative gender data. Section 2 offers a feminist perspective on gender data. Section 3 discusses the gender data value chain. Section 4 presents potential contributions of think tanks along the data value chain. Section 5 presents the paper’s conclusions and recommendations for think tanks’ roles.



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Gender data: what we measure, what we overlook

Data can unveil hidden or unknown realities by ensuring that people's voices, experiences, and needs are visible through the sustained collection of information about their lives. Gender data seeks to reflect the diversity of women's and men's experiences (Temin & Roca, 2016; Data2X, n/d).

Over the past 40 years, recognition of the importance of data has led to the emergence of initiatives, commitments, and strategies to fill the gender data gap. In 2012, for example, former Secretary of State Hillary Clinton, in partnership with several global organizations, created Data2X, a collaborative platform to improve the availability, quality, and use of gender data. In 2013, the United Nations Statistical Commission defined the Minimum Set of Gender Indicators to be used across countries and regions for the national production and international compilation of gender statistics (United Nations Statistics Division, 2019). The Sustainable Development Goals (SDGs), launched in 2015, include 54 gender-specific indicators (UN Women, 2018).

Some of the data needed to fill the gender data gap already exists. Researchers, think tanks, NGOs, governments, and funders are increasingly using it (Temin & Roca, 2016). For example, data produced through civil registration and vital statistics systems allows governments to track differences in male and female birth and mortality rates and identify causes of death, informing resource allocation for social and healthcare services (Fuentes & Cookson, 2020). Nationally representative demographic health surveys collect data on women's participation in household decision-making, domestic violence, and control over income (Temin & Roca, 2016).

Despite the progress made in the generation of gender-related data and the growing importance of gender statistics, the gaps are still vast. While sex disaggregation is the most common standard for gender data, it remains a challenge. A 2014 report by Data2X noted that about 80% of countries regularly produced sex-disaggregated statistics on mortality, labour force participation, and education and training. However, less than a third of countries produced statistics disaggregated by gender on informal employment, entrepreneurship, violence against women, and unpaid work (Open Data

Watch, 2019). A 2019 study that mapped the availability of 104 gender indicators³ in international databases showed that only 44% of these indicators are available with complete disaggregation, 22% lack sex disaggregation, and 26% lack any data at all (Open Data Watch, 2019). In Africa, only 32% of the indicators have complete sex disaggregation, 12% of the indicators lack sex disaggregation, and 35% had no data (Open Data Watch, 2019).

BOX 2: WHY IT IS IMPORTANT TO COLLECT GENDER DATA

Gender data serves an essential purpose in supporting practitioners', researchers', and decision-makers' efforts to implement gender-transformative actions. It informs decision- and policy-making, and challenges the assumption that everyone is affected by policy, programmes, and legislation in the same way. When thinking about decision- and policy-making, the ability to collect equivalent data for a representative sample of people ensures that the voices and experiences of the marginalised are heard and acted upon (Levine, 2017).

Gender data allows for policies to respond and adapt to the differentiated needs of men and women. It also provides civil society actors with the tools to evaluate government policies and hold states accountable (Fuentes & Cookson, 2020). Donors and development partners increasingly generate and use gender data to inform their strategies and resource allocation.

Comparability is also an issue. According to UN Women (2018), only 24% of the data available for gender-specific indicators is from 2010 or later. Only 17% of the gender-specific indicators with data have information for two or more points in time. For example, while 84 countries have conducted time-use surveys, only 24% have data from 2010 or after. The lack of comparable data also undermines the achievement of the SDGs. As of 2018, only 26% of the gender-specific indicators necessary for the global monitoring of the SDGs and 17% of the gender data required to monitor change across time were available (UN Women, 2018). Only 10 of the 54 gender-specific SDG indicators are produced with enough regularity to be considered Tier 1.⁴ The remaining indicators have components spanning multiple tiers (UN Women, 2018).

Challenges in terms of data availability and comparability are further exacerbated by the prevalence of gender-based discrimination, which is reflected in the way countries collect, or do not collect, gender data. For example, gender norms still negatively affect the availability of civil registration and vital statistics about women and girls in several countries worldwide. While the births of boys and girls are generally registered equally around the world, birth registration is significantly lower for girls than boys in Sudan, Niger, Namibia, Guinea Bissau, Tajikistan, Costa Rica, Armenia, and Thailand (Bhatia et al. 2017, quoted in Dincu & Malambo, 2019). In countries such as Syria, Nepal, Bhutan, and Nicaragua, newborns cannot be registered without their father's or grandfather's signature (Dincu & Malambo, 2019). Male deaths are twice as likely to be registered as female deaths. In 10 sub-Saharan African countries, there is no legal obligation to register a marriage (Dincu & Malambo, 2019).

3. The indicators include UN Women SDG Gender Indicators, additional SDG Gender Indicators, the Minimum Set of Gender Indicators, and UN Women Supplemental Indicators.

4. Tier 1 indicators are conceptually clear, have an established methodology, and standards are available. Data are regularly produced for at least 50% of countries and of the population in every region where the indicator is relevant.

Challenges in terms of data availability and comparability are further exacerbated by the prevalence of gender-based discrimination, which is reflected in the way countries collect, or do not collect, gender data.

Even when gender data is available, it is not always suitable for addressing gender-related challenges. Take the SDGs as an example. Although the 2030 Agenda recognises the importance of gender equality and the need to generate gender-specific indicators, six out of the 17 SDGs, including the goals related to industry and innovation, energy and the environment, and sustainable consumption, are gender blind (UN Women, 2018). Even the indicators that are gender related often fail to capture the gendered impacts of inequality and poverty accurately. For example, SDG indicator 6.1.1 monitors change in access to safely managed water sources located off-premises. Since women and girls are mostly responsible for water collection off-premises, the indicator can be considered gender related. Nevertheless, the indicator does little to highlight the implications of the gendered nature of access to water sources and its impact on women and girls' use of time and domestic and care work burden (UN Women, 2018).

The limitations of available gender data are also visible in instances beyond the SDGs. Gender violence statistics show *how many* women have suffered domestic violence; however, they cannot reveal the drivers of violence or explain connections between seemingly unrelated phenomena, such as women's access to transportation and violence (Fuentes & Cookson, 2020). Labour force surveys that measure primary economic activities leave out women's contributions who perceive paid work as secondary to their unpaid care and domestic work and might not report these activities. Most labour surveys are still blind to these nuances (UN Women, 2018; Buvinic & Levine, 2016).

These examples show that the way we define gender data, and how it is collected, designed, and interpreted, can often support the perpetuation of gender biases and the misrepresentation of women's contributions to society. Feminist approaches argue that gender data should not be reduced to data disaggregated by sex, and that existing approaches to gender data collection and analysis are not yet entirely fit for purpose.



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Gender data through a feminist lens

The promise of the data revolution lies in the idea that what cannot be measured cannot be fully understood or addressed (Data Revolution Group, 2014; Stuart, Samman, Avis, & Berliner, 2015). In this sense, measurement regimes understood as the production and mobilisation of quantitative data and reporting processes and monitoring systems have become a central element of gender equality policy work (Buss, 2015). Numerically oriented approaches facilitate comparison across different contexts. This has intrinsic value since it facilitates the identification of problems long ignored by governments, decision-makers, and development actors. However, reducing the gender data gap to a counting problem neglects the complexities and power dynamics within which data is conceived, interpreted, and used (Fuentes & Cookson, 2020; Buss, 2015).

Measurement regimes contribute to the idea that quantitative indicators are objective truths. However, numeric indicators often lead to simplifications that overlook social dimensions that do not easily translate into numeric and quantitative categories (Buss 2015; Fuentes & Cookson, 2020). Fuentes & Cookson (2020) illustrate this situation with the case of *'Juntos'*, a government-funded conditional cash transfer programme in Peru. As with many such programmes, its success was measured in terms of its capacity to increase health service usage and beneficiaries' compliance with its conditions. However, the data collected to assess the programme's impact did not account for unintended costs, such as the time allocated by women to reach the health clinics or the fact that some women were forced to participate in political parades or have hospital births instead of home births due to the threat of programme suspension (Fuentes & Cookson, 2020).

Measurement regimes contribute to the idea that quantitative indicators are objective truths. However, numeric indicators often lead to simplifications that overlook social dimensions that do not easily translate into numeric and quantitative categories.

From a feminist perspective, the use and production of data cannot be seen as a power- or gender-neutral process (Fuentes & Cookson, 2020; Temin & Roca, 2016; Buss, 2015). Buss (2015) clearly articulates this point by showing that what we measure is a value-laden choice made within political arenas in response to specific policy agendas. For example, during the 1990s, one of the most notable advances in gender equality occurred in sexual and reproductive health (Fuentes & Cookson, 2020; Campbell White, Merrick, & Yazbeck, 2006). Evidence was accumulating on the value of investing in women's health and their ability to decide over their bodies. This informed the 1994 Conference on Population and Development in Cairo, and the Fourth World Conference on Women held in Beijing (Campbell White, Merrick, & Yazbeck, 2006). However, when the Millennium Development Goals (MDGs) were adopted in 2000, global commitments to women's reproductive rights were entirely overlooked. Women's health was quantified solely in terms of maternal mortality. Opposition from the male-dominated G-77, which was internally split on the issue but opted for a consensus that would not offend its most conservative members, became a pivotal factor in preventing the Secretariat from attempting to include at least some of the language of Cairo or Beijing in the MDGs (International Planned Parenthood Federation, 2012).

BOX 3: ASSUMPTIONS ABOUT HOUSEHOLD HEADSHIP

A feminist approach to data and measurement allows identification of challenges that emerge from the use and interpretation of gender data. Take, for example, the definitions and statistics that compare male-headed (MHHs) and female-headed households (FHHs). MHHs are often defined as households in which women are married to men, while FHHs lack adult men (Doss & Kieran, 2014; Buvinic & Levine, 2016).

These definitions and the reproduction of assumptions based on these interpretations obscure diversity in family dynamics and favour heteronormative assumptions of what a household is, overlooking the realities of thousands of women living in MHHs.

Consequently, differences based on household headship have informed assumptions around the feminisation of poverty in developing countries that has contributed to the female-headship discourse about poverty that dominates the development discourse (Kabeer, 2003, quoted in Bradshaw, Chant, & Linneker, 2017).

Bradshaw et al. (2017) argue that assumptions about FHHs might suggest that in addition to the social and economic disadvantages which unpartnered women face, they are also disadvantaged by 'male-deficit' household arrangements. They also note that the smaller average size of FHHs gives them greater visibility in poverty statistics, yet evidence on the extent to which FHHs are poorer than MHHs is mixed and subject to definitional and data-related issues. Evidence from Africa indicates that FHHs have contributed more to GDP growth and have reduced poverty at a faster rate than MHHs (Millazzo and van de Walle, 2015, quoted in Bradshaw et al., 2017).

Statistics upon which quantitative data is based are often treated as more objective than qualitative data. A feminist critique of gender data seeks to challenge the widespread 'common sense' discourse around quantitative data and balance the scales used to measure and understand gender inequality (Fuentes & Cookson, 2020). Feminist philosophers of science have long argued that science cannot be

separated from social influences, so the idea of a value-free science should not be held as an ideal. Instead, they argue that science works best when operating values are acknowledged, examined, and utilised (Crasnow, 2009). This approach opens up the space for inquiry and discussion about the aspects of data often considered a given.

For data use, examining possible gender biases and power imbalances includes asking *who* decides how indicators are constructed, from *which* data, and *what* indicators will measure a specific problem (Bradshaw, Chant, & Linneker, 2017). These factors can determine what type of evidence is available and the discourses that are constructed around it. For data production, while measurement regimes may open up spaces and tools to contest power, the same measurement culture can also create hierarchies (Buss, 2015). In this process, some forms of knowledge and expertise are more valued than others. Knowledge formats often found in the Global North are more likely to be considered the ‘right’ tools. Simultaneously, actors from the Global South are often the subjects and objects of measurement (Buss, 2015). To address this gap, it is paramount to include the voices of the individuals and groups whose lives could be improved.

To ensure that gender data is fit for purpose, much can be achieved by changing how researchers, policy- and decision-makers, NGOs, and think tanks collect, use, and interpret data. For example, rethinking data collection methods to avoid bias in the construction of surveys and censuses is crucial to ensure that data is gender-responsive and correctly informs the design and implementation of policies and programmes. Think tanks are well situated to gather and disseminate evidence to inform better data policies. Their knowledge about beneficiaries and the on-the-ground implications of policies and programmes is a valuable source of gender-related experiences. Also, gender approaches to the evaluation of programmes and policy outcomes might be useful to identify the differences between men and women, while feminist evaluations can shed light on the reasons why these differences exist (Hay, 2012).

New data is also required to understand the gendered realities that shape human experience. A feminist perspective advocates for more gender data in the form of qualitative insights that shed light on factors that quantitative scales of measurement alone cannot capture.

This approach challenges the assumption that the data that matters is confined to quantitative efforts. New, gender-responsive approaches to data should adopt more holistic views on how gender (beyond binary conceptions) can be understood and measured. This implies questioning how data is retrieved and indicators constructed, and including other sources of evidence in research and policy-making processes.



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A gender data value chain and the policy cycle

Data is crucial to understanding and tackling gender inequality. As noted in the previous section, gender data is not solely sex-disaggregated data; rather, it encompasses all the data, from quantitative and qualitative sources, that can better portray the complexities of gender inequality. Gender data that is fit for purpose can support construction of the evidence necessary to prompt policy-makers to mobilise resources, track progress, and demand accountability. For gender data to be fit for purpose, it cannot be monolithic or unchanging. Data evolves, and it gains or loses value as it moves through different stages: from the moment in which it is created to the moment it is used to inform policy-making. The concept of a *data value chain* is useful to map and understand this process (Open Data Watch & Data2X, 2018).

The interactions between gender and different policy areas are complex and intertwined with social norms and institutions. Policies interact with the gendered structures of societies and have gender-differentiated effects. These effects are often difficult to analyse due to a lack of appropriate data and the limited inclusion of gender considerations at every stage of the policy cycle (Table 1). For example, is it worth considering whether gender data has informed a problem included in the public agenda, or if the agenda includes the differentiated effects of a problem on women and men? During the policy formulation stage, are gender-related outcomes and implications weighted, and how? Are the voices and needs of the beneficiaries taken into consideration? How are these needs reflected in the policy? All these gender considerations are crucial but cannot be mainstreamed in the policy cycle if gender data is not available or not fit for purpose.

Table 1. The policy cycle and relevant gender considerations

Stages of the policy cycle	Gender considerations
Agenda Setting	How is the problem defined? What are the differentiated effects of the problem on women? What type of data/evidence is used to define the problem? Is gender-blind data used? Are there gender biases that the problem definition overlooks?
Policy Formulation	Policy options should weigh in gender-related outcomes and implications. Are the voices of those the policy is seeking to benefit included? Is the policy formulation process using data from various sources to assess the best options?
Implementation	What type of criteria is being used to improve the effectiveness of interventions? Are gender implications considered? Which sources of expertise are used? Is there diversity in terms of expertise and practical experience?
Monitoring & Evaluation	What are the criteria against which success is measured? Are monitoring and evaluation processes perpetuating gender biases? How are the results of monitoring and evaluation processes being included in the policy process?

Source: Own contribution based on Sutcliffe & Court (2005).

For gender data to be transformative, it needs to be mainstreamed into every policy area and every stage of the policy cycle itself. To do so, data has to go through a production and use process, through which it gains or loses value. The data value chain describes connections between various steps that transform low-value inputs into high-value outputs (Open Data Watch & Data2X, 2018). The data value chain is useful in considering gender data and the processes and stages that shape its quality and usability for policy-making.

Open Data Watch & Data 2X (2018) propose four stages along the data value chain: data collection, publication, analysis and uptake, and impact (see Figure 1). The *data collection phase* refers to the process through which data is gathered. In this phase, identifying what data is needed to solve a problem, answer a question, or monitor a process occurs. The collection of data can involve various retrieval mechanisms, such as surveys or administrative data. Decisions made here can affect the quality of the data over the next steps of the value chain (Open Data Watch & Data2X, 2018). Since data collection mechanisms and definitions can be biased, gender-sensitivity is essential during this stage. The collection phase should also entail at least some consultation with future users to determine the type of data and level of granularity required to understand an issue and its impacts.

Once the data has been collected, it should be *published* so users can easily access it. This includes three key activities: analysing data to extract useful information, publishing data and metadata in online and offline formats so that users can easily access it, and disseminating data through appropriate channels to reach desired audiences (i.e., policy- and decision-makers). Data dissemination is crucial so that users can access it and use it. This can be done in partnership with intermediaries to ensure it reaches as many users as possible (Open Data Watch & Data2X, 2017). It is critical for the successful publishing of data to ensure that the selected channels are the right ones for the desired audiences (Sethi & Prakash, 2018).

The *analysis and uptake stage* overlaps the publication stage since it concerns connecting users to data. This entails three steps: connecting data to users, incentivising users to incorporate data in their decision-making, and increasing the perception of value of data among users. Available data is often not used by key stakeholders due to limited skills for or information on accessing and using data. For this reason, data uptake is crucial since it ensures that the data that has been produced will be used by the right users to inform their decisions and advocacy efforts. At this stage, it is essential to encourage the use of the available data for decision-making and raise awareness about the value of data to inform decisions.

The *impact stage* involves using data to create change, inform decision-making, and monitor variations. Impact can be achieved in different ways: data can be a) used to understand a problem or make a decision, b) used to change or improve the outcome of a project, initiative, or policy, and c) used/reused in combination with other data and shared freely (Open Data Watch & Data2X, 2018). In some cases, the path from raw data to impact is straightforward. In other cases, the process is longer and depends on various factors, such as the existence of political will to use the data or pre-existing demand for data. Where such conditions do not exist, the path towards impact can include advocacy for the use of data on a specific topic (e.g., gender violence).

Figure 1. Gender data value chain



Source: Own elaboration based on Open Data Watch & Data2X (2017).

The four stages identified by Open Data Watch and Data 2X (2017) are useful in illustrating the changing nature of data and the importance of taking different actions at different stages to increase data impact. However comprehensive, the model might overlook the conditions that, often inadvertently, shape the production of data and reproduce misconceptions about vulnerable and underrepresented groups. These assumptions are particularly relevant for gender data. For this reason, we believe it is necessary to ‘add’ a *data generation* step that is concerned with the criteria that lead to data collection and that shape what is measured and how.

The *data generation* stage seeks to create the space to assess whether existing indicators and statistics accurately reflect women and girls’ realities and needs. In this stage, it is worth asking two types of questions. When data is available, is it fit for purpose or is it contributing to the reproduction of gender biases? When data is not available, what kind of data is needed to fill the gap? Why has this data not been produced? Are there other sources that could fill this gap? This stage is essential since it allows the assessment and contestation of the concepts used to generate and gather data, the sources of data, and the scales and criteria for measurement and collection.

Seeing gender data as part of a value chain promotes a focus on issues that prevent data from addressing gender-related inequalities. The idea is that if researchers, think tanks, and other policy actors increasingly perceive data as part of a value chain, there will be more space to challenge preconceptions about the neutrality of data at different stages, and to include feminist approaches in its production and use. Also, this approach allows identifying roles for different actors along the value chain. In the next section, we discuss the potential role of think tanks in promoting and supporting better gender data.



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How can think tanks contribute to the generation and use of better gender data?

Think tanks are institutions that bridge the gaps between research and practice. Think tanks can mobilise expertise and ideas to inform the policy-making process. They are catalysts for actionable ideas; they can capture political attention and interest by brokering ideas, encouraging public debate, and helping to set political agendas (United Nations University, 2015).

Think tanks are also data users and producers. Because of their broad range of functions, they are in a position to encourage the generation and use of better gender data at different stages of the data value chain, generate evidence, and provide information and advice for policy-makers.

This section discusses the actions that think tanks can take during data production and use. These actions have been divided into phases following the data value chain logic. We have also classified these actions according to role: think tanks as data producers, and think tanks' role in overseeing the production and use of gender data. This classification does not mean that think tanks should participate in only one phase of the value chain or that they have to be involved in all stages; this depends on their capacities, expertise, and areas of work.

The functions and roles for think tanks outlined in this section do not intend to cover all possibilities along the data value chain. The options presented here are an initial contribution and seek to open the discussion about other spaces and roles for think tanks to strengthen the production and use of gender data.

Data production

As data producers, think tanks can make significant contributions during the data production phase, which entails data generation, collection, and publication.

Figure 2. Data production phase



Source: Own elaboration based on Open Data Watch & Data2X (2017).

As part of their research or advocacy processes, think tanks can generate data and contribute to the production of more useful gender data (Table 1). Think tanks should ensure that gender considerations are mainstreamed throughout the research process. This encompasses the inclusion of gender criteria in the research questions, the instruments used to collect data, and the type of data used to answer them. In the data generation stage, think tanks should be aware of and evaluate any assumptions and gender biases shaping their research. This includes assessing the indicators and other measurement mechanisms to ensure that these are the best tools to portray women and girls' realities.

At the data collection stage, think tanks can evaluate and use qualitative and alternative sources of gender data. When quantitative data is not available, or a sufficient level of granularity cannot be achieved, mixed-methods approaches for gender-related issues can provide a fuller picture for analysis. Data collection should be responsive to the needs of future users. A key way to ensure the inclusion of gender equality considerations in data production and use is to work closely with government entities, including NSOs, civil society organisations, actors from the private sector, etc. Think tanks are well situated to lead consultations with potential users of data due to their access to stakeholders such as grassroots organisations, advocates, governments, and policy-makers.

As data producers, think tanks have control over the data they produce, and they can make it available to potential users via relevant channels. Think tanks can ensure that gender data and metadata are publicly available to potential users by advocating that data should be freely available to everyone to use and republish. Often, during the publication stage, gender data insights can be extracted for publication. This analysis should be undertaken with an awareness of the limitations of the collected gender data, which should be made explicit to potential users.

Table 2. Role of think tanks during the data production phase

Role of TTs	Data generation	Data collection	Publication
Data producers	<ul style="list-style-type: none"> • Include gender considerations in the research process. • Challenge/evaluate assumptions/biases being used to generate indicators and other measurements. 	<ul style="list-style-type: none"> • Evaluate and use qualitative/alternative and complementary sources of gender data. • Consultations with future data users. 	<ul style="list-style-type: none"> • Publishing in relevant channels, including open data formats and machine-readable formats. • Include gender considerations/gender-relevant limitations in data insights.
Oversight of data production	<ul style="list-style-type: none"> • Create spaces to critically evaluate criteria behind gender data. • Create awareness/capacities among data producers. 	<ul style="list-style-type: none"> • Raise awareness about gender data that is not being collected. • Create spaces for consultation with future users of data. 	<ul style="list-style-type: none"> • Share insights/experiences about best ways/formats/platforms to publish data.

Source: Own elaboration.

A second role for think tanks in the data production phase is to oversee the generation of gender data and contribute to improving its quality. In this role, think tanks can use their ability to create spaces for discussion and reflection, and convene and facilitate dialogue among different actors. Since government entities, NSOs, and international organisations collect the majority of quantitative gender data, think tanks might not be directly involved in data collection at large scales. However, think tanks can assess the type of data collected and flag limitations and blind spots. They can create spaces to critically evaluate and discuss the concepts and criteria guiding gender-data generation. Additionally, they can create awareness and capacities among data producers concerning gender considerations missing in the data production phase.

At the data collection stage, think tanks can raise awareness about the gender data collected and the gender data being overlooked. They can contribute to the discussion by analysing the barriers that result in missing gender data and suggest strategies to bridge gaps. Think tanks can also identify and make visible other sources of underutilised gender data (e.g. citizen-generated data,⁵ qualitative data) and contribute to filling gender data gaps. They can also create spaces for consultation with future users of data collection.

At the publication stage, think tanks can share insights and experiences with data producers about the best ways to publish gender data. Their expertise in reaching out to different audiences is extremely valuable in this respect. They can also advocate for transparency in the publication of data, and help ensure it gets into the right hands. Think tanks can partner with other actors in the knowledge and policy ecosystem to make data and metadata accessible to the public.

5. According to Paris 21 (the Partnership in Statistics for Development in the 21st Century established in 1999), citizen-generated data are data produced by non-state actors, mostly CSOs, under the active consent of citizens to tackle social issues. The main purpose of citizen-generated data is to monitor, demand, or drive change on issues affecting people and their communities.

Data use

As data producers, think tanks can make significant contributions during the data production phase, which encompasses analysis and uptake, and impact.

Figure 3. Data use phase



Source: Own elaboration based on Open Data Watch & Data2X (2017).

Think tanks have been successful in influencing and informing policy agendas, the search for policy solutions, and the promotion of specific solutions for policy-makers and the public (Pautz, 2020). This expertise allows them to ensure that gender data is successfully used and achieves impact. Think tanks use gender data from various sources to conduct research, inform their advocacy efforts (and those from other actors), and design and implement initiatives.

Think tanks can include critical feminist perspectives at the analysis and uptake stage. In addition to quantitative gender data, they can use qualitative data to complement and contextualise gendered experiences. A more nuanced understanding of gender and its implications can better inform policies and actions in the policy cycle. If policy-makers struggle to grasp the scale of the challenges facing women and girls, think tanks working in the field need to use data and evidence to make their case clear and compelling (Edwards, 2017).

Their target groups are varied, so think tanks need to make their analysis accessible to multiple audiences. This is especially relevant in the case of gender data. A survey conducted by Equal Measures 2030 (2017) showed that policy-makers are generally not confident in their knowledge of gender-related facts and figures, and their perception of the scale of challenges affecting girls and women is often wrong. To address this gap, think tanks can contribute to closing the knowledge gap by creating useful, accessible, and differentiated outputs for policy-makers and other stakeholders.

Interpreting and using gender data to inform policies is at the core of many think tanks' activities. Policy areas such as sexual and reproductive health have a more explicit focus on women. However, other areas, such as industrial policy, innovation and technology, civil society participation, and climate change, do not always include gender criteria, and policy-makers need to be aware of the gendered implications of policy in all areas. Think tanks' broad range of expertise allows them to use gender data transversally to inform various policy areas.

Table 3. Role of think tanks during the data use phase

Role of TTs	Analysis & uptake	Impact
Data users	<ul style="list-style-type: none">• Include feminist perspectives in the analysis of available gender data.• Make gender-data analysis accessible and friendly for different audiences.	<ul style="list-style-type: none">• Ensure that gender-related analysis and research reaches decision-makers, advocacy and grassroots groups, and other stakeholders, and informs their actions.
Oversight of data use	<ul style="list-style-type: none">• Connect users with gender data.• Connect data users and producers (connecting stakeholders of the gender data ecosystem through networks or coalitions).• Create skills to facilitate data uptake among key stakeholders and decision-makers.• Empower advocates and policy-makers to use gender data and acknowledge the limitations of qualitative data.• Gather and disseminate uptake data to inform future dissemination strategies.	<ul style="list-style-type: none">• Ensure that policy-makers use available gender data in their decision-making process.• Monitor and evaluate the impact of gender data in policy-making.

Source: Own elaboration.

In the oversight function, think tanks also have significant contributions to make. One of their leading roles might be to connect users to gender data. This can be achieved in several ways, including the dissemination and promotion of available official sources of data (through social media or other digital platforms, for example), and the generation of skills among users to empower them to make impactful use of gender data. Additionally, think tanks can gather and disseminate uptake data. This information is extremely useful for informing dissemination strategies and aligning gender-data users' and producers' expectations and preferences.

Think tanks can also direct attention to the challenges that others face when accessing and using available data. These advocacy efforts can encourage discussions on how to improve the effectiveness of gender data. Another important contribution of think tanks is to monitor and evaluate the impact of gender data in policy-making. Often, when thinking about gender data, positive impacts are measured in terms of governments' commitment and ability to generate gender data. Indeed, this aspect is crucial for gender equality efforts. However, there is significantly less understanding and evidence on how (or if) gender data influences decision-making. Think tanks can fill this gap and identify strategies to strengthen evidence and gender data among policy-makers and other key actors.



Icon from www.freepik.com

Conclusions and recommendations

Gender data serves an essential purpose in supporting practitioners', researchers', and decision-makers' efforts towards gender-transformative actions. However, the lack of high-quality gender data limits the possibilities for addressing the root causes of the disadvantages and inequality that women and girls face worldwide. Gender data that is not fit for purpose can exacerbate inaccurate and reductionist assumptions about women and their lives that could harm effective policy action.

Data is not neutral. Existing power structures shape the way data is gathered, interpreted, and used. A feminist approach to evidence urges researchers and thinktankers to consider the legitimacy of data in the eyes of policy-makers and the public and the assumptions and representations behind gender data. For gender data to be fit for purpose, it cannot be monolithic or unchanging. Data goes through different stages and changes along the way.

For this reason, the concept of a *data value chain* is useful. It can be used to map critical stages where data used in policy- and decision-making can become more gender sensitive. To date, these discussions have mainly been explored in the academic literature and have not fully permeated the policy sphere. Think tanks are ideally placed as the bridge between these discussions and the policy-making world.

Using the data value chain idea, this paper has explored how think tanks can contribute to better gender data and its impactful use by policy-makers and other key actors. Thus, the critical roles for think tanks include:

- a. Creating spaces for assessment and contestation of gender data and identifying strategies to improve its quality. Think tanks' ability to interact with different stakeholders is extremely valuable to ensure diversity of views and perspectives in these spaces. This includes consultation with prospective users of gender data. Think tanks can bring those discussions to the policy-making arena and contribute to bringing them into practice.

- b. Bringing attention to the gender data that is being collected and the data that is missing. If think tanks are actively involved in data production, either as producers of data or in an oversight function, they can raise awareness about the limitations of existing data and the barriers that prevent other data from being produced.
- c. Diversifying and validating other sources of gender data. Think tanks can promote the use of qualitative and alternative sources of gender data. This can contribute to reducing data mistrust among users who see quantitative-data-only approaches as reductionist and biased.
- d. Connecting users to data. Think tanks can build bridges between users and data by sharing and monitoring good practices and lessons about data publication, dissemination, and uptake. This is a crucial contribution for data producers seeking to reach their target audiences efficiently.
- e. Funding or supporting funding for research and collection of data with a gender perspective by putting this issue on donors' agendas.

Some of the identified roles and contributions overlap, and they are intrinsically connected to the role of think tanks as knowledge brokers, providers of evidence, and facilitators of interactions and dialogues between various actors. Each of these actions aims to normalise the inclusion and use of critical feminist approaches to inform gender data practices. Think tanks need to question the data they use and engage in processes to generate, collect, and share data from diverse sources.

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