T20 Policy Brief



Task Force 3 LiFE, Resilience, and Values for Wellbeing



TOWARDS A GENDER-INCLUSIVE GDP: RECOMMENDATIONS **TO THE G20**

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Abstract

ross domestic product (GDP) is an imperfect measure of the economic size of a country as it excludes unpaid domestic and care work from its ambit. As such, the all-pervasive use of GDP in policy and popular discourse can create several issues. It could overestimate benefits of a policy if an associated increase in GDP is merely a transition from unpaid to paid work. It could also lead to an underestimation of the level of economic activity if a country relies more on unpaid household services, relative to others. More importantly, not valuing unpaid domestic work impacts women's life outcomes as they face the disproportionate burden of this work. Without linking it to monetary value, unpaid domestic work is often seen as part of a woman's 'natural duties.'

Measurement, when accompanied by strong behavioural change efforts, can help show more widely that household chores are economic activities, and promote diverse participation in such activities. Including unpaid domestic and care work in GDP can also influence government policies towards providing adequate care facilities and time-saving infrastructure to fully serve the interests of women, whose effort subsidises the operation of markets.

This policy brief^a highlights the importance of including unpaid domestic and care work in GDP, outlines possible methodologies, and makes recommendations to the G20 countries on how to move towards a more genderinclusive measure of GDP.

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The Challenge

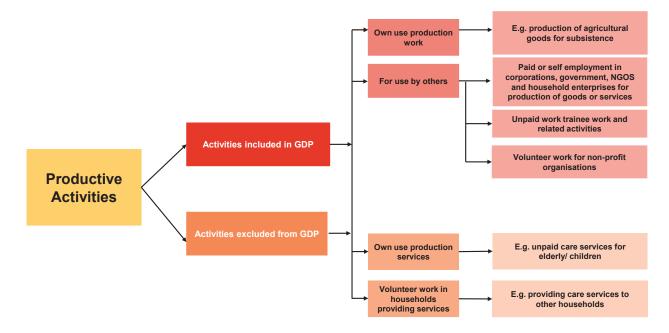


ross domestic product (GDP) is the final value of the production of goods and services in a country over a specific period. First developed during the 1930s to understand the impact of the Great Depression in the US, and refined thereafter during the Second World War, most countries today produce standardised statistics on GDP that enables comparison across geographies and years.¹ Countries routinely target this in development programmes and measure the success of their policies based on their impact on GDP. In the media and policymaking, higher GDP is often conflated with improved economic welfare. Criticisms of this 'fetishism' include the inability of GDP to indicate the state of economic inequality, or the extent of environmental degradation that accompanies growth but presumably reduces welfare.²

However, there is a gap in the way GDP is conceived, even as a technical measure of economic activity. Specifically, it does not include the value of unpaid domestic and care work in the economy. The United Nations' System of National Accounts (SNA) is an internationally agreed upon set of rules to guide the compilation process of GDP data in countries. It classifies activities based on whether their monetary value should be included when estimating GDP (see Figure 1). As per the SNA, unpaid work in households producing services for own use is an excluded activity. For example, the monetary value of a parent teaching a child at home without any payment, or a family member providing care services to an elderly parent, is not included in GDP.³ This is anomalous because other unpaid work-to produce goods sold in the market or for a household's own consumption-is included in GDP.



Figure 1: System of National Accounts boundaries and forms of work

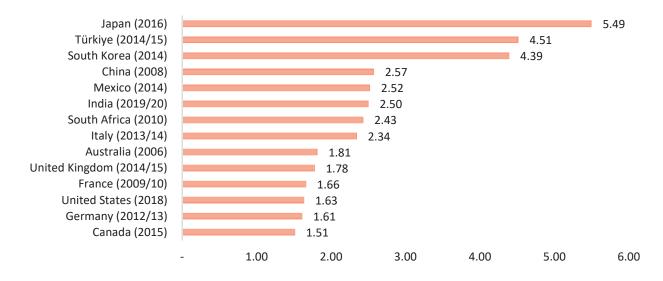


Source: UNSTATS⁴

At the heart of it, the exclusion of unpaid domestic and care work is a methodological issue. It can mean that for the same level of economic activity, GDP may change based on a transition from unpaid to paid work or vice versa. To quote American economist Paul Samuelson's famous example, "if a [woman] arranges with her neighbour

for each to clean the other's house in return for US\$5,000 a year, then the [GDP] would go up by US\$10,000".⁵ This could underestimate economic activity in countries disproportionately consuming unpaid domestic services or overestimate benefits of policies that increase paid work at the cost of unpaid work.

Figure 2: Ratio of time spent on unpaid work by women as ratio of time spent by men (latest available year)



Source: OECD Stat. Time-use database⁶

The reason this methodological issue is seen from a gender lens is that, globally, the burden of unpaid work disproportionately falls on women (see Figure 2). It also impacts their life outcomes in the following ways:

• Lower female labour force participation rate (LFPR): In countries where women spend an average of five hours a day on unpaid care activities, 50 percent of women in the working age population are economically active (i.e., employed or looking for job). On the other hand, in countries where women spend three hours a day on unpaid care activities, 60 percent of women are in the labour force.⁷

- Occupational downgrading among women: The burden of unpaid work leads women to choose jobs below their skill level and entailing poorer working conditions.⁸
- Increased gender wage gaps: In countries where women spend twice as much time as men in care activities, they earn only 65 percent of what their male counterparts earn for the same job. This falls to 40 percent when women spend five times the amount of time on unpaid care work as men.⁹

 Lower social protections: Social benefits such as paid time off, life insurance, savings, pension, and healthcare insurance are tied to employment, which put unpaid domestic and care workers at a disadvantage.¹⁰

Naturally, this has policy implications. In 2014, the G20 leaders resolved to achieve a 25-percent reduction in the LFPR gap between men and women by the end of 2025. Since LFPR is inextricably linked to the issue of unpaid domestic work, any policy step will require the measurement and valuation of the magnitude of this work. Additionally:

The measurement and valuation of unpaid work may help the government make the necessary policy decisions to increase LFPR and reduce the burden of unpaid work on women. For example, extended GDP estimates may be used to inform budgetary outlays on components of care infrastructure, such as creches, elderly care, and the length and availability of maternity and paternity leave. Countries with existing age-structures (such as what the country forecasts for itself in 10 or 20 years) may serve as benchmarks.

- The quantification of unpaid domestic and care work in GDP, and their treatment as economic activities will increase the perceived worth of this work and correct the perception that it is just a part of women's natural duties.¹¹ This might also propel more men to participate in these activities.
- The valuation of unpaid work will reenforce the benefits this work brings to the economy. For instance, unpaid work acts as a subsidy for market activity and government provisioning of public infrastructure. Without unpaid work at home, it is likely that the cost of maintaining a similar lifestyle, and thus demanded wages, will be higher. Similarly, unpaid work may be a result of inadequate government provision of services such as healthcare, education. or transportation that necessitate a substitution by home-based production of services for own use.12
- Excluding unpaid domestic and care work from GDP leads to incorrect analysis of the levels and changes in the welfare of individuals and countries. This reduces the effectiveness of welfare policies, and their monitoring. Correcting



this would make associated analysis more accurate. ¹³

• Depending on the tools used, including unpaid domestic and

care work in GDP can enable an impact analysis of economic and social policies on households in terms of redistribution of domestic work, LFPR, and GDP.

The G20's Role



he valuation of unpaid domestic and care work aligns with G20 priorities. Since 2008, the G20 has made approximately 63 core commitments on gender equality, including on issues such as increasing female LFPR and improving workplace conditions.14 Women20 (W20), an official engagement group, was established in 2015 to ensure that gender considerations are streamlined into G20 discussions, and translated into policies and commitments for women's empowerment.¹⁵

The G20 countries have already taken substantive steps towards valuing unpaid work. Almost all member countries conduct time-use surveys. There have also been attempts to set a monetary value for this work in Mexico, Argentina, Australia, Canada, and the UK.¹⁶ However, different official government agencies may have valued the unpaid work using different methodologies, making inter-country comparisons difficult. This necessitates a standardisation of methodologies, which the G20 can contribute.¹⁷

Techniques for valuing unpaid work

There are typically two methods used to value unpaid work. ¹⁸ They include:

- Input method: This counts the hours worked in unpaid activities and assigns a price to the using a comparable wage rate. The data on hours is available through timeuse surveys that elicit detailed responses on how men and women spend their time through a typical day. The wage rate may be the opportunity cost, replacement cost, or even prevalent minimum wages.¹⁹
- **Output method:** This measures the results of unpaid production by assigning a price to the quantities of services produced. This would require that the volume of units produced be determined. For example, in childcare, the total output will be the total number of child hours for which service is given rather than the number of hours a childcare provider works.

The output method is more consistent with national accounting methods but will require separate data collection.



The input method is relatively more straightforward as it relies on time-use surveys that are already in existence in many countries. On the other hand, the type of value attached to every unit of unpaid work has been a subject of debate.

Approaches to integrate unpaid domestic and care work into GDP

The first approach moves beyond GDP by seeking to assess welfare more holistically. It encompasses measures like the Measure of Economic Welfare (MEW), the Index of Sustainable Economic Welfare (ISEW), and the Genuine Progress Indicators (GPI). The second approach corrects for the methodological issue in GDP as it is currently measured through household satellite accounts (HSA).

Approach 1: New measures of welfare

The MEW was conceptualised in 1972 by William Nordhaus and James Tobin, making three adjustments to GDP. First, MEW excludes all 'unnecessary' intermediate expenditures; for example, personal commuting costs, and government expenditures on systems necessary to run an 'industrial nationstate' such as police, military costs, and sanitation. Second, it excludes the value of activities that reduce welfare, such as pollution and crime. Third, it includes the consumption of leisure and non-market productive activity to reflect the principle that reducing hours of paid work would increase utility and welfare, even when reducing GDP.²⁰ The ISEW, later revised and proposed as GPI, is like MEW but also accounts for deterioration of natural capital.²¹ Moreover, its starting point is inequality adjusted household expenditure.²²

While relatively easy to implement, the MEW and the ISEW both lack a theoretical foundation and involve a high degree of subjectivity. They are also difficult to compare with existing GDP measures. The second approach overcomes this.

Approach 2: Household satellite account

Supply-use tables underlie conventional national account estimation to ensure consistency between data on different industries and sectors of the economy. They represent the structure of the economy, showing how industries combine raw materials from other industries with labour, land, capital, and entrepreneurial ability to produce output. Simultaneously, they also represent how the output of any industry is demanded as raw material or capital goods in other industries, or by households or governments for their consumption. For instance, to produce potatoes, inputs from agriculture (tubers, manure), manufacturing (threshers, tractors), and services (wholesale and retail trade, transportation, storage) are used. In turn, potatoes may be demanded in agriculture (as tubers), manufacturing (for producing potato chips), and services (in restaurants to serve french fries). Additionally, households also buy potatoes for consumption at home. The supply-use tables consistently represent all this information for all sectors included in GDP.

The HSA enables a comprehensive accounting of own-use production of services in a manner consistent with the above system. In effect, they extend supply-use tables by treating the household as an additional industry.²³ This would mean that the demand for some industries currently classified as

household demand will be reclassified as raw material or capital goods into the production of household services. For example, books used in homeschooling will now be a raw material in the household education industry. Similarly, domestic appliances used in cooking, or a car used in providing household transportation services (for example, dropping a child to school) will now be a capital good. These raw materials and capital goods will then be seen as combining with labour engaged in the production of these services to produce output.²⁴

While there are challenges to this estimation, including the need for data and assumptions, HSA has many uses for policymaking.²⁵ It can be used to show the extended GDP impact of interventions, such as household water connections and formal childcare, that reduce unpaid work of women. It can also deduce the impact of economic policies. For instance, a study of the effects of trade liberalisation on male and female work in Nepal found that higher LFPR for women did not equivalently reduce the time spent on domestic work, but reduced their leisure time.²⁶

Recommendations to the G20



Short-term recommendations

- Standardise data collection through time-use surveys: Although most G20 countries have time-use surveys, they should be standardised and made more regular for international comparisons and progress tracking. Guidance from UN Women may be referred to on methods of data collection.27 A higher periodicity of such surveys (for instance, at least once a year) as GDP base revision will be useful. 'Lighter' surveys by appending a module to labour force or living standard surveys could also provide insights in the interim. Leveraging technologies such as electronic diary for built in validation checks, interactive voice response technology-based data collection in areas of low literacy/ digital connectivity, and artificial intelligence for analysis of text data could additionally reduce the resource intensiveness of the process.28
- Commission further research through a multi-country initiative on methodological questions: The Think20 and W20 can identify priority research areas on measuring time use, such as the treatment of multitasking,

distinguishing between leisure and domestic work activities, the correct wage rate to be used in the input approach and its adjustment depending on use.²⁹ This will help in formulating the standardised, common methodology that may be followed by all G20 countries in estimating the GDP value of unpaid work in the economy.

- cross-country colla-Pursue borations and learnings between G20 countries to develop a standard methodology for including unpaid domestic and care work in GDP: The existing experience of the G20 countries, especially learnings from countries with existing methods of valuations and HSAs (such as Australia, Canada, and the UK) can be leveraged for this purpose.
- **Release preliminary comparable** estimates of value of domestic work: Based on the methodologies researched upon above, G20 countries could start releasing estimates based on a common, comparable methodology. А compiled document released during the G20 summit would help generate visibility for these estimates and encourage other countries to do the same. In the short-term this may be a simpler valuation based on the



input approach without creating more detailed household satellite accounts.

Long-term recommendations

Release and institutionalise comparable household satellite accounts: Based on the methodologies developed, the G20 countries could start releasing HSAs based on a common, comparable methodology. A compiled document released during the G20 summit will help generate visibility for these estimates and encourage policy research. This will also enable the development of use cases for such data.

Enable transition from а analysing economic growth to analysing economic wellbeing by using these estimates for policy analysis. Integrating home production of services when analysing economic policies will go a long way towards reorienting "our market economies to intentionally serve the interests of the societies within which they operate," and which subsidise markets and state provisioning of services.30

Attribution: Devkanya Chakravarty and Manoranjan Pattanayak, "Towards a Gender-Inclusive GDP: Recommendations to the G20," *T20 Policy Brief*, May 2023.

Endnotes

- 1 Amit Kapoor and Bibek Debroy, "GDP Is Not a Measure of Human Well-Being", Harvard Business Review, October 19, 2017, https://hbr.org/2019/10/gdp-is-not-a-measureof-human-well-being#:~:text=However%2C%20modern%20economies%20have%20 lost,t%20reflect%20a%20nation's%20welfare.
- 2 Joseph E Stiglitz, "GDP Fetishism", *Project Syndicate*, September, 2009, https://www8. gsb.columbia.edu/faculty/jstiglitz/sites/jstiglitz/files/2009_GDP_Fetishism.pdf.
- Peter van de Ven, Jorrit Zwijnenburg and Matthew De Queljoe, "Including unpaid household activities: An estimate of its impact on macro-economic indicators in the G7 economies and the way forward," (OECD Statistics Working Papers 2018/04, OECD Publishing, Paris, 2018), 9, https://doi.org/10.1787/bc9d30dc-en.
- 4 UN Stats, *Unpaid Household Service Work* (Meeting of the Advisory Expert Group on National Accounts, UN Stats, October, 2020), 8, https://unstats.un.org/unsd/ nationalaccount/aeg/2020/M14_6_7_Unpaid_HH_Service_Work.pdf.
- 5 Marjorie Cohen, "The Problem of Studying "Economic Man"," in *Feminism in Canada: From Pressure to Politics,* ed. Geraldine Finn, Angela Miles (Montreal: Black Rose, 1982), 150.
- 6 OECD.Stat, *Time use*, (February 18, 2021), OECD, https://stats.oecd.org/Index. aspx?DataSetCode=TIME_USE.
- 7 Gaëlle Ferrant, Luca Maria Pesando and Keiko Nowacka, *Unpaid Care Work: The missing link in the analysis of gender gaps in labour outcomes* (Geneva: OECD Development Centre, 2014), 1.
- 8 Cristian Alonso, Mariya Brussevich, Era Dabla-Norris, Yuko Kinoshita and Kalpana Kochhar, "Reducing and Redistributing Unpaid Work: Stronger Policies to Support Gender Equality," (IMF Working Paper No. 2019/225, International Monetary Fund, 2019), 4, https://www. imf.org/en/Publications/WP/Issues/2019/10/15/Reducing-and-Redistributing-Unpaid-Work-Stronger-Policies-to-Support-Gender-Equality-48688.
- 9 Ferrant, Pesando and Nowacka, Unpaid Care Work, 6.
- 10 Committee on Family Caregiving for Older Adults; Board on Health Care Services; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine, "Economic Impact of Family Caregiving," in *Families Caring for an Aging America*, ed. Richard Schulz, Jill Eden (Washington (DC): National Academies Press (US), 2016), https:// www.ncbi.nlm.nih.gov/books/NBK396405/.

- 11 Diana Crookston, "Should Unpaid Labor be Included in GDP?," *Journal of Politics and Strategy* 5, no. 3 (April 2021): 24, https://www.cmu.edu/ips/research/ips-journal/ips-journal/ips-journal-online/jps-issue-1.pdf.
- Rania Antonopoulos, "The unpaid care work paid work connection," (Working Paper No.
 86, Policy Integration and Statistics Department International Labour Office, 2009), 2.
- 13 Ferrant, Pesando and Nowacka, Unpaid Care Work, 1.
- 14 Julia Kulik, "G20 performance on gender equality," *The Global Governance Project*, 2021, https://www.globalgovernanceproject.org/g20-performance-on-gender-equality-4/julia-kulik/.
- 15 Ministry of Women and Child Development, "W20 (Women 20) for India's G20 Presidency," *Press Information Bureau*, February 25, 2023, https://pib.gov.in/PressReleasePage. aspx?PRID=1902349.
- 16 United Nations Economic Commission for Europe. *Guide on valuing unpaid household service work* (Geneva: United Nations, 2017), 27.
- 17 Catherine Mueller, *Time Use Data: Sources and applications of data on paid and unpaid labour* (London: UK Aid, April 9, 2018), 161.
- 18 United Nations Economic Commission for Europe. *Guide on valuing unpaid household service work,* 25-34.
- 19 Clare Coffey, et al., *Time to Care: Unpaid and underpaid care work and the global inequality crisis*, (Oxford: Oxfam International, January, 2020), 7.
- 20 William D. Nordhaus and James Tobin, "Is Growth Obsolete?," in *The Measurement of Economic and Social Performance*, ed. Milton Moss (National Bureau of Economic Research, 1973), 512- 517, https://www.nber.org/system/files/chapters/c3621/c3621.pdf.
- Eric Neumayer, "On the methodology of ISEW, GPI and related measures: some constructive comments and some doubt on the 'threshold' hypothesis," *Ecological Economics* 33, no. 3 (2000): 347-361.
- 22 Philipp Schepelmann, Yanne Goossens and Arttu Makipaa, *Towards Sustainable Development: Alternatives to GDP for measuring progress* (Döppersberg: Wuppertal Institute for Climate, Environment and Energy, 2010), 24.
- 23 Duncan Ironmonger, "National Accounts of Household Productive Activities" (conference paper, Time Use, Non-Market Work, and Family Well-Being Conference, Washington (DC), 1997).
- 24 United Nations Economic Commission for Europe. *Guide on valuing unpaid household service work,* 39.

- 25 Robert Costanza, Maureen Hart, Stephen Posner and John Talberth, "Beyond GDP: The Need for New Measures of Progress," (The Pardee Papers no. 4, Boston University, Boston, Jan, 2009), 21-22, https://www.bu.edu/pardee/files/documents/PP-004-GDP.pdf
- 26 Ismaël Fofana, John Cockburn and Bernard Decaluwe, "Developing Country Superwomen: Impacts of Trade Liberalisation on Female Market and Domestic Work," (CIRPEE Working Paper No. 05-19, SSRN, 2005), 29.
- 27 Jacques Charmes, Measuring Time Use: An assessment of issues and challenges in conducting time-use surveys with special emphasis on developing countries. Methodological Inconsistencies, Harmonization Strategies, and Revised Designs (Mexico City: Global Centre of Excellence on Gender Statistics and UNWOMEN, 2021), 17, https:// data.unwomen.org/sites/default/files/documents/Publications/Measuring%20time%20 use.pdf.
- 28 Gueorguie Vassilev, Will King, Sally Wallace, Joe White and Expert Group on Innovative and Effective ways to collect Time-Use Statistics, *Modernization of the Production of Time-use Statistics* (Statistical Commission Background Document, March, 2022), 15-27, https://unstats.un.org/unsd/statcom/53rd-session/documents/BG-3h-Modernization_ UN_EG_TUS2021_FINAL_SENT_rev-E.pdf.
- 29 United Nations Economic Commission for Europe. *Guide on valuing unpaid household service work,* 39.
- 30 Colm Kelly and Dennis J. Snower, "Recoupling shareholders, stakeholders and society," *Global Solutions Journal*, no.7 (May 2021): 19.

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