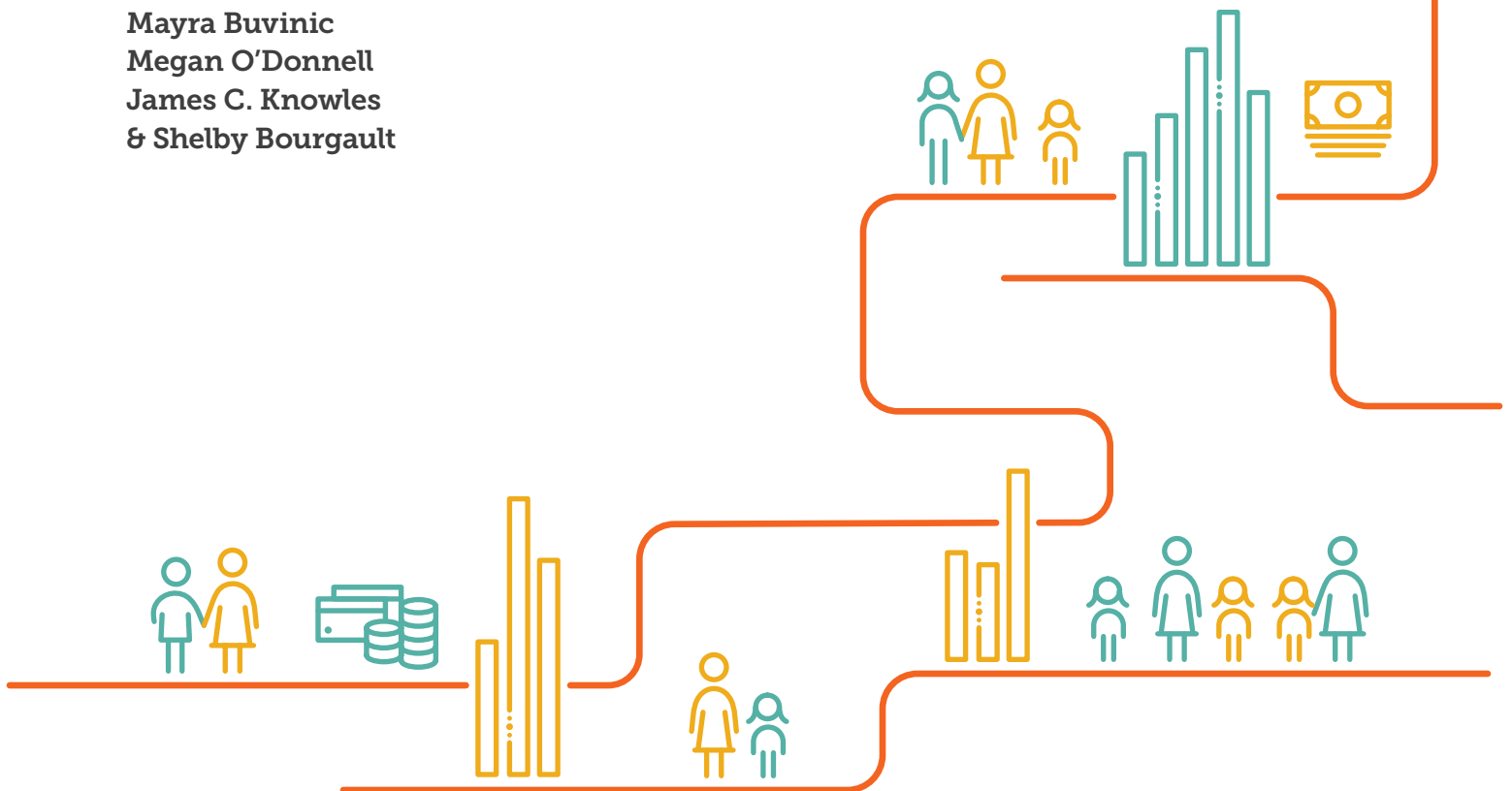


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Measuring Women's Economic Empowerment

A Compendium of Selected Tools

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Executive Summary

Objective

This Measuring Women's Economic Empowerment (WEE) Compendium selects and reviews tools for measuring women's economic empowerment (or disempowerment) grouped into 20 population monitoring tools (PM) and 15 monitoring and evaluation tools (M&E). The main objective is practical: helping readers both understand how different measurement tools are built and select among the most well-known and widely (cross-culturally) applicable tools for different purposes.

"Tools" in this context are defined as resources composed of conceptual frameworks, sets of indicators and/or indexes that are designed to support the measurement of WEE outcomes and track their progress over time. The compendium includes: 1) an overview of existing WEE measurement tools; 2) systematic evaluation of the tools' technical content; and 3) a structured inventory of the tools' indicators.



What These Tools Measure

PM tools monitor progress according to a set of WEE-related indicators in countries (or groups of countries)—these are tools for aggregate-level population monitoring. PM tools usually calculate country indexes that allow users to compare countries' progress in WEE-related outcomes. PM indexes provide useful information for a variety of audiences, including, for instance, donors wishing to establish country partnerships and impact investors seeking promising countries for social investments.

M&E tools monitor and evaluate the outcomes of WEE-related projects and programs. M&E tools are primarily used by researchers and program implementers to monitor the effects of a program or study the program's impact on WEE-related inputs, outputs, and outcomes.

The compendium is limited to “complete” tools presenting sufficient information for a thorough review of their purposes, methodologies, and underlying data sources.

Women's Economic Empowerment (WEE) Conceptual Framework

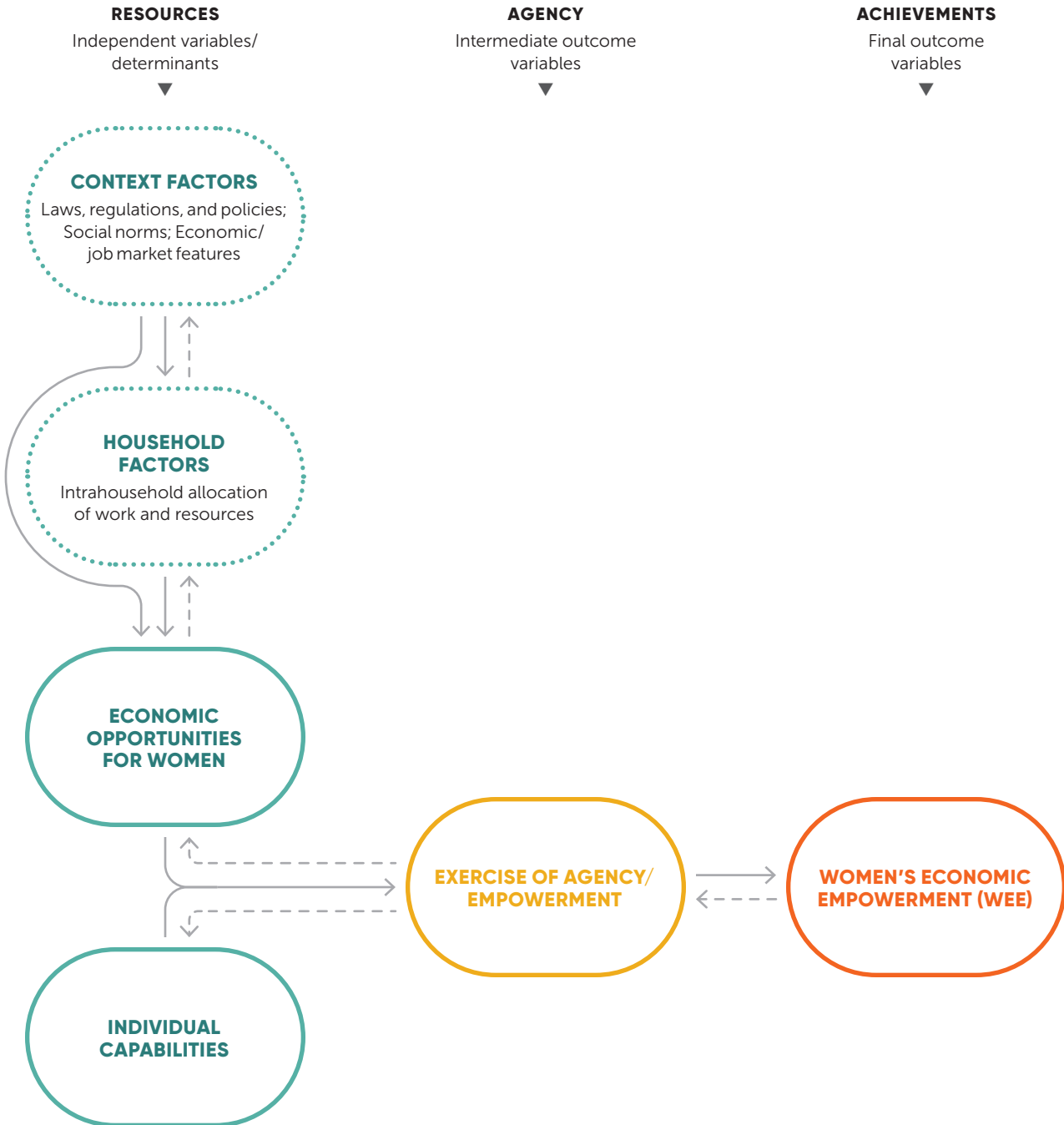
A WEE conceptual framework, based on the rich literature on this topic, guided the selection of tools. The framework conceptualizes WEE both as a process and an outcome. The process of empowerment (also known as “the exercise of agency”) is an intermediate step that leads to a final WEE outcome that has both an objective and a subjective dimension (Figure 1). WEE is the product of contextual, household, and individual (capabilities) factors. Contextual and household factors define economic opportunities for women, separately and jointly. Women's capabilities include individual (and community) endowments that enable them to exercise agency and take advantage of economic opportunities. There are feedback loops between women's capabilities, economic opportunities, and final outcomes, with both virtuous empowerment cycles and vicious disempowerment cycles.

All tools address one or more dimensions of the compendium's WEE conceptual framework. Many of the PM tools address different dimensions in the “resources” side of the WEE framework, such as laws and regulations, discrimination, and security. Most M&E tools focus on measuring WEE as a final outcome in both its objective and subjective dimensions, and many measure empowerment (the expression of agency) as an intermediate outcome.

FIGURE 1 (Appears on page 17)

Women's Economic Empowerment Framework

Source: Authors' illustration



Population Monitoring (PM) Tools

The 20 PM tools (Table 4) vary in their objectives, dimensions, indicators, data sources, and coverage of countries and years but all PM tools we review calculate country indexes and/or sub-indexes.

Most PM tools follow at least some of recommended nine steps to construct a technically sound index—most have a clear conceptual framework, use stated criteria to select variables, have reliable data sources, and use standard procedures convert data into comparable indicators. Around half use statistical analysis to assess the properties of their conceptual frameworks. However, most do not analyze the implications of their numerous assumptions.

The 20 PM tools include 312 PM indicators distributed across the different WEE framework dimensions.

Monitoring & Evaluation (M&E) Tools

Most M&E tools (Table 7) reflect outcomes for all women, but some focus on more specific sub-populations. Tools vary in the number of dimensions and indicators they include. Although all M&E tools share the common purpose of measuring WEE outcomes individually (as distinct from developing an index of multiple outcomes), some M&E tools are best suited for impact evaluations because their indicators are relatively complex, requiring expensive data collection that is only practical in impact evaluations, while other M&E tools are more suitable for traditional M&E because their indicators are simpler and less expensive to collect (often focused on inputs, outputs, and direct outcomes rather than intermediate or final outcomes).

The usefulness of an M&E tool can be gauged by whether it meets six particular criteria, including those related to its underlying theory of change and the selection, definition, and measurement of its indicators. The tools we review vary in their performance against these criteria. A well-documented theory of change forms the backbone and strength of M&E tools and differentiates tools from each other.

The M&E tools include a total of 164 indicators that are used in one or more of the 15 M&E tools to capture individual, household, and community-level outcomes.

Choosing Tools and Indicators

The following basic questions can help readers select which WEE measurement tool is a “good fit for your purpose”:

1. What is your desired objective? (population monitoring or M&E)
2. What is your substantive focus? (e.g., gender equality, women’s legal rights, women’s empowerment in agriculture)
3. What specific dimensions of WEE interest you? (e.g., financial inclusion, land rights)
4. What population of women are you seeking to learn about? (women globally, women entrepreneurs, women in Africa)
5. What level(s) of outcomes—direct, intermediate and/or final—interest you? (M&E tools only)

Table 4 (PM tools) and Table 7 (M&E tools) provide an overview of the main features of the 34 tools in the compendium and can help with the selection of tools in response to the questions above. The inventory of 476 indicators in this compendium from PM tools (Annex 4) and M&E tools (Annex 6) is a potentially useful resource for those tasked with developing WEE-related PM tools and M&E frameworks for project monitoring or impact evaluation.

TABLE 4 (Appears on page 31)

Main Features of the Population Monitoring Tools Reviewed in the Compendium

Source: Authors' summaries

	Organization	Tool Focus	Population	Countries
Gender Equality Index	European Union	Gender equality	All women	28
SDG Gender Index	Equal Measures 2030	Gender equality	All women	129
Female Entrepreneurship Index (FEI)	GEDI	Women's business opportunity	Women entrepreneurs	77
Individual Deprivation Measure (IDM)^a	IDM	Multi-dimensional poverty	Males and females age 16+	3
Women's Empowerment in Agriculture Index (WEAI)^a	IFPRI	Women's empowerment in agriculture	Women working in agriculture	3
Project Women's Empowerment in Agriculture Index (pro-WEAI)^a	IFPRI	Women's empowerment in agriculture	Women working in agriculture	9
Social Institutions and Gender Index (SIGI)	OECD	Discrimination against women	All women	129
Women's Economic Empowerment and Equality Dashboard (WE3)	USAID	Women's participation in the economy	All women	180
Global Gender Gap Index	World Economic Forum	Gender equality	All women	134
Women, Business and the Law Index (WBL)	World Bank Group	Legal rights of women	All women	190
Women's Empowerment Index (WEI)^a	The Hunger Project	Women's empowerment	All women	8
Women, Peace, and Security Index (WPS Index)	Georgetown University	Women's inclusion, justice and security	All women	153
Women's Economic Opportunity Index (WEOI)	Economist Intelligence Unit	Women's economic opportunity	All women	128
Africa Gender Equality Index	African Development Bank	Gender equality	All women	54
Gender Development Index (GDI)	UNDP	Gender equality	All women	189
Women's Workplace Equality Index	Council on Foreign Relations	Legal barriers to women's economic participation	All women	189
Gender Equity Index	International Institute of Social Studies (Rotterdam)	Gender equity	All women	190
Survey-based Women's Empowerment Index (SWPER)	International Center for Equity in Health (Brazil)	Women's empowerment	Women in union in 34 African countries	34
Multidimensional Gender Inequalities Index (MGII)	Economics Center of Sorbonne (Paris)	Gender equality	All women	109
African Gender and Development Index (AGDI)	UN Economic Commission for Africa	Gender equality	All women	41

Continued on next page →

EXECUTIVE SUMMARY

	Number of Dimensions ^b	Number of Indicators	Indicator Type		Data Source	
			Objective	Subjective	Primary	Secondary
Gender Equality Index	6	31	✓	✓		✓
SDG Gender Index	14	51	✓	✓		✓
Female Entrepreneurship Index (FEI)	3	30	✓			✓
Individual Deprivation Measure (IDM)	15	27	✓		✓	
Women's Empowerment in Agriculture Index (WEAI)	5	10	✓	✓	✓	
Project Women's Empowerment in Agriculture Index (pro-WEAI)	3	12	✓	✓	✓	
Social Institutions and Gender Index (SIGI)	4	27	✓	✓		✓
Women's Economic Empowerment and Equality Dashboard (WE3)	5(16)	47	✓	✓		✓
Global Gender Gap Index	4	14	✓	✓		✓
Women, Business and the Law Index (WBL)^c	8	35	✓		✓	
Women's Empowerment Index (WEI)	5	9	✓	✓	✓	
Women, Peace, and Security Index (WPS Index)	3	11	✓	✓		✓
Women's Economic Opportunity Index (WEOI)	5	29	✓	✓	✓	✓
Africa Gender Equality Index	3	38	✓			✓
Gender Development Index (GDI)	3	4	✓			✓
Women's Workplace Equality Index^d	7	56	✓			✓
Gender Equity Index	0	14	✓	✓		✓
Survey-based Women's Empowerment Index (SWPER)^e	3	15	✓	✓		✓
Multidimensional Gender Inequalities Index (MGII)	8	30	✓			✓
African Gender and Development Index (AGDI)^f	7	44	✓			✓

a The number of countries refers to those in which the tool as designed has been piloted.

b Number in parentheses refers to the number of sub-dimensions, the highest level for which an index is calculated in this tool.

c Indicators are based on the legal framework faced by women residing in the country's main business city.

d The number of variables for which scores are calculated was reduced from 50 to 35 in 2020, while the number of dimensions was increased to eight.

e Indicators are based on DHS survey data from 34 African countries.

f Indicators are based on ECA database.

TABLE 7 (Appears on page 45)

Main Features of the Monitoring & Evaluation Tools Reviewed in the Compendium

Source: Authors' summaries

	Organization	Purpose & Activities	Tool Focus	Population
<u>Project EDGE (EDGE)</u>	UN Statistics Division	Traditional M&E and impact evaluation	Gender equality	All women
<u>Project Women's Empowerment in Agriculture Index (pro-WEAI)</u>	IFPRI	Traditional M&E and impact evaluation	Women's agency	Women working in agriculture
<u>Strategic Impact Inquiry</u>	CARE	Impact evaluation	Women's empowerment	All women (especially poor women)
<u>Private Sector Development</u>	DCED	Traditional M&E	WEE	Women working in the private sector
<u>Common Measurement Framework</u>	Global Coffee Platform (GCP)	Traditional M&E	WEE	Women working in the coffee sector
<u>Internationally Comparable Indicators</u>	OPHI	Traditional M&E and impact evaluation	Agency and empowerment	All women
<u>Women's Empowerment Index</u>	Oxfam	Impact evaluation	Women's empowerment	All women
<u>Measuring Women's Economic Empowerment</u>	UN Foundation	Traditional M&E and impact evaluation	WEE	Urban and rural women business owners, rural women farmers
<u>Measuring Women's Economic Empowerment</u>	Ipsos	Traditional M&E and impact evaluation	WEE	All women
<u>Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations</u>	J-PAL	Impact evaluation	Women's empowerment	All women
<u>Evidence Based Measures of Empowerment for Research on Gender Equality (EMERGE)</u>	UCSD/GEH	Impact evaluation	Gender equality and empowerment	All women
<u>IDRC GrOW Measuring Women's Economic Empowerment</u>	GrOW	Traditional M&E and impact evaluation	WEE	All women
<u>Measuring Women's Agency</u>	World Bank	Traditional M&E and impact evaluation	Women's agency	All women
<u>What Gets Measured Matters</u>	Gates Foundation	Traditional M&E and impact evaluation	Women and girls' empowerment	All women
<u>WOW Measurement of Women's Economic Empowerment</u>	DFID (UK)	Traditional M&E and impact evaluation	WEE	All women

Continued on next page →

EXECUTIVE SUMMARY

	Number of Dimensions	Number of Indicators	Indicator Type		Level of Measurement		
			Objective	Subjective	Individual	Household	Community
Project EDGE (EDGE)^a	0	24	✓		✓	✓	
Project Women's Empowerment in Agriculture Index (pro-WEAI)	3	12	✓	✓	✓		
Strategic Impact Inquiry	17	23	✓	✓	✓		✓
Private Sector Development	7	17	✓	✓	✓	✓	✓
Common Measurement Framework	0	16 ^b	✓		✓		
Internationally Comparable Indicators	4	5	✓	✓	✓		
Women's Empowerment Index	5	24	✓	✓	✓		
Measuring Women's Economic Empowerment	14 ^c	32 ^c	✓	✓	✓	✓	
Measuring Women's Economic Empowerment	3	49	✓	✓	✓	✓	✓
Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations	7	37	✓	✓	✓	✓	
Evidence Based Measures of Empowerment for Research on Gender Equality (EMERGE)	9	300+	✓	✓	✓	✓	✓
IDRC GrOW Measuring Women's Economic Empowerment	16	81	✓	✓	✓	✓	✓
Measuring Women's Agency	3	7		✓	✓		
What Gets Measured Matters^a	3	35 ^d	✓	✓	✓	✓	✓
WOW Measurement of Women's Economic Empowerment^a	5	48	✓	✓	✓		

a EDGE, What Gets Measured Matters, and WOW indicators are redefined from the community level to individual and household levels to be more suitable for typical M&E applications.

b Number of indicators refers to intermediate outcomes.

c Numbers of dimensions and indicators refer to final and intermediate

outcomes only.

d Refers to number of indicators with identified sources.

Looking Forward: Research Challenges

The 312 indicators from PM tools that populate the compendium’s WEE conceptual framework are richer in covering the “resources” side of this framework while the 164 indicators from M&E tools are richer in covering the “agency” and “achievements” sides of the framework. This uneven coverage of the dimensions of the WEE conceptual framework underlines the need to close several important gender data gaps, particularly in the areas of empowerment, agency, and the intra-household allocation of work and resources. This is a research challenge for both large scale surveys and customized primary data collection efforts.

There is also an opportunity to form a WEE measurement community of practice to align on standards of good practice and work on harmonization efforts.¹ The community of practice could build on this compendium’s initial compilation and analysis of WEE measurement tools and agree to a defined set of quality standards for future tool development, as well as standards focused on data transparency—creating a minimum set of information that should always be reported to tool users.

Introduction

“In the last week, did you do any work for pay?”

“Who decides how money gets spent in your household?”

Both of these questions have been used by researchers to measure women’s economic empowerment (WEE). Women’s labor force participation is typically viewed as one important aspect of WEE. However, working for pay should not be considered synonymous with WEE, since a woman’s ability to earn income does not ensure that she has control over how it is spent, saved, or invested.

To that end, researchers often inquire about whether women also have a say in how the family budget is spent as a proxy for their decision-making power in the household. Questions such as these that capture whether women both *earn* and *control* income can be applied to whole populations, allowing us to understand the degree to which women across a city, state, or country are empowered economically. They can also assess if a program intervention, such as one providing skills training to young women seeking to enter the workforce, or access to financial capital or business management training to women entrepreneurs, has in fact empowered them economically.



A surge of interest from governments, the private sector, researchers, and advocates in promoting WEE has led to a proliferation of WEE measurement tools. We define “tools” for purposes of this paper as resources that contain conceptual frameworks, sets of indicators, and/or indexes that are designed to support the measurement of WEE outcomes and track their progress over time.² We note that the multitude of tools currently available makes it difficult to know which are most useful for specific purposes and contexts and which have been developed most rigorously.

To address this challenge, this WEE measurement tool compendium selects and reviews tools for measuring women’s economic empowerment (or disempowerment) grouped into population monitoring tools (PM) and monitoring and evaluation tools (M&E). Like the sample questions cited above, the tools reviewed were built to either: 1) monitor progress according to a set of WEE-related indicators in countries (or groups of countries)—these are tools for aggregate-level population monitoring, or 2) monitor and evaluate the outcomes of WEE-related projects and programs—these are monitoring and evaluation tools.

The compendium reviews 20 PM tools and 15 M&E tools. The large number of available tools indicates the importance of the topic and provides options for readers who are interested in using tools for either population monitoring or program monitoring and evaluation. We hope that a variety of readers interested in WEE measurement, including policy makers, program advocates, donors, program managers, and researchers, will use the compendium. This version, therefore, has been prepared for users with varying technical backgrounds. A version with more technical detail can be found [here](#).

A main objective of the compendium is practical: helping readers locate and choose different tools (and indicators) for different purposes.

This includes providing a better understanding of the factors that affect country rankings produced by different tools and selecting among tools and indicators for monitoring a particular project. It also identifies gaps in WEE measurement that need to be filled and aims to promote harmonization among WEE stakeholders through a shared understanding of existing tools and what they measure.

The compendium includes: 1) an overview of existing WEE measurement tools; 2) systematic evaluation of the tools’ technical content and; 3) a structured inventory of the tools’ indicators.

A review of what WEE means and a conceptual framework built around a common understanding of WEE are presented in the next section. Section 3 describes how the tools were selected and what goes into a tool. Section 4 describes the two types of tools we review by their main purposes: country-level population-monitoring (PM, discussed in section 5) and the monitoring and evaluation of projects and programs (M&E, discussed in section 6). At the beginning of every section, the “key takeaways” list summarizes the section’s main points. The concluding section summarizes guidance on using the tools and makes recommendations to fill gaps in the existing inventory of WEE measurement tools.

How is WEE Measured & Defined?

Key Takeaways

- WEE is a complex concept—it has many dimensions and can manifest itself differently in different cultures and settings.
- There is a rich literature on the topic and consensus that WEE is a process involving resources, agency, and achievements.
- The compendium’s WEE conceptual framework synthesizes this literature and guided the selection of measurement tools reviewed.
- The process of empowerment, also referred to as the “exercise of agency,” is an intermediate outcome leading to a final WEE outcome that has both an objective dimension (economic achievement) and a subjective dimension (economic empowerment).
- The key dimensions of WEE can be grouped into contextual and household factors that shape economic opportunities for women and their capabilities, which include individual (and community) endowments that enable women to exercise agency and take advantage of economic opportunities.
- There are feedback loops between women’s capabilities, economic opportunities, and final WEE outcomes, with both virtuous and vicious cycles—either fostering social and economic progress or reinforcing “gender inequality traps.”³

Unpacking the WEE Concept

Any attempt at measurement should begin with a clear understanding of what is being measured. This is a first and major roadblock for measuring WEE because the term is complex—it encompasses many dimensions of women’s economic and social lives and can (and often does) manifest itself differently in different cultures and settings.

Depending on context and culture, the same behavior being measured can either be an indicator of empowerment or one of conforming to gender-discriminatory traditions. For instance, returning to our two sample questions at the start of this introduction, while employment is used as an indicator of economic advancement, there is wide agreement that not all employment empowers

women. For the millions of members of the Self-Employed Women’s Association (SEWA) members in India, who are self-employed in waste picking and other marginal backbreaking and unstable occupations, only decent, full employment is considered empowering.⁴ Similarly, while business profits are taken to signify economic advancement, increased business profits may not be empowering for some women business owners if they trigger stress from growing demands on their time and the inability to juggle business and family responsibilities well.⁵

Asking about who decides how the family budget is spent (the second question cited above) can provide insight into women’s level of decision-making power relative to their spouses in many but not in all contexts. For women in poor households in Latin America, for instance, making everyday decisions about household purchases is considered part of their traditional role as caretakers—not a sign of empowerment.⁶

TABLE 1

Unpacking WEE as a Process

Source: Authors’ summaries

WEE Main Concepts	Definition	Examples
RESOURCES	Material, human, and social resources that serve to enhance the ability to exercise choice, including actual allocation as well as future expectations.	<ul style="list-style-type: none"> • Educational attainment • Farmland • Savings
AGENCY	The ability to act and effect change in spheres that are important to the individual. In the context of economic empowerment, it is about having the skills and resources to compete in markets; fair and equal access to economic institutions; and the power to make and act on decisions and control resources and profits. ^{7 8 9}	<ul style="list-style-type: none"> • Control over household expenditure • Decision-making power
ACHIEVEMENTS	Final outcomes of the empowerment process can be measured by objective outcome measures and subjective measures of empowerment and wellbeing. ¹⁰	<ul style="list-style-type: none"> • Increased income • Improved self-esteem • Improved business practices

A rich literature on the definition of women's empowerment more generally and WEE in particular tries to grapple with the complex nature of these terms. Although a wide range of views have been expressed, some of which diverge, as could be expected, there is general consensus around the following ideas:

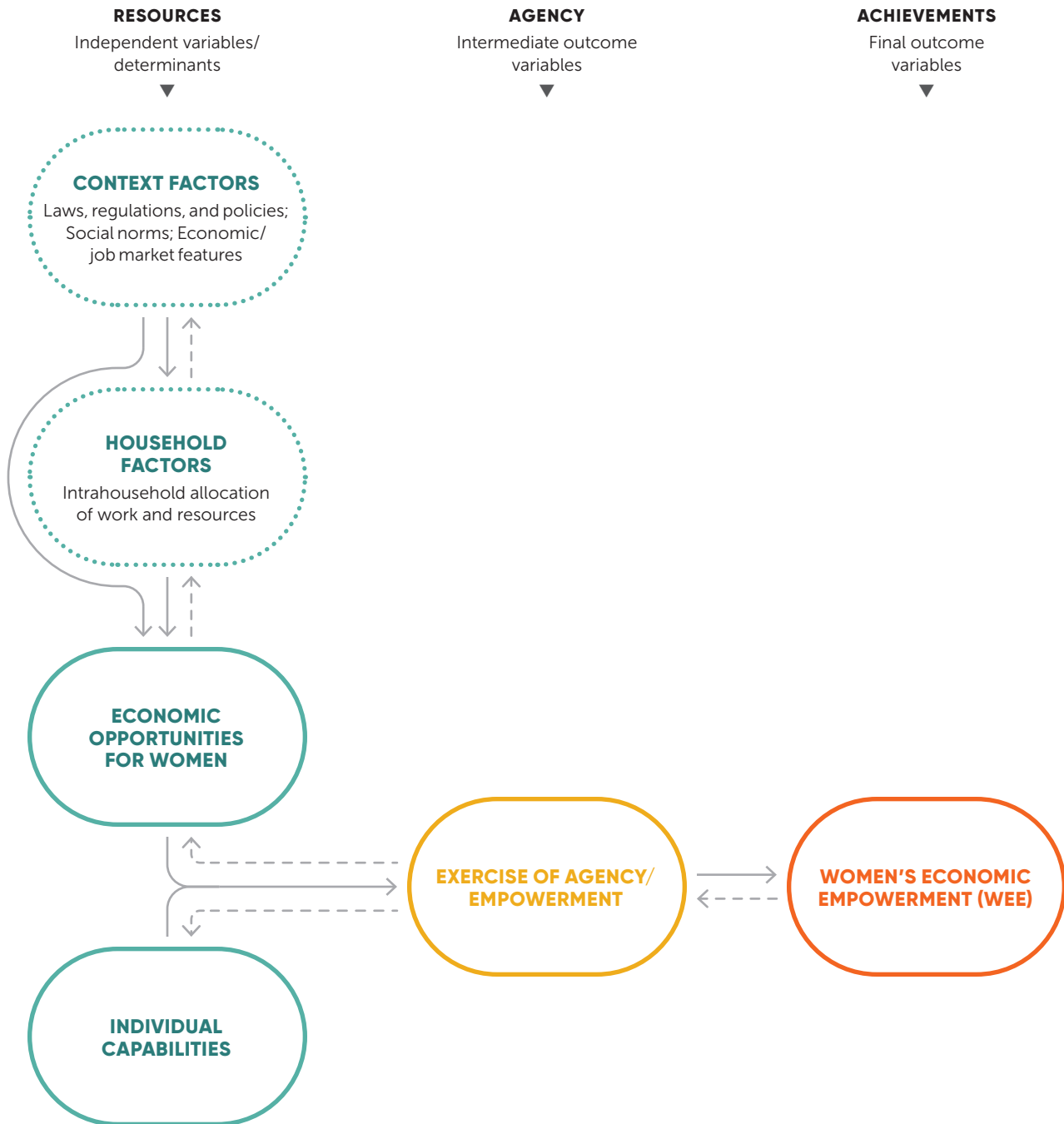
- WEE is a multi-dimensional concept, covering many aspects of women's lives and their relationships to their families, communities, and broader contexts;^{11 12 13}
- WEE is dependent on change at multiple levels (individual, household, community, and national);^{14 15 16 17}
- The direction of change is not always the same for all dimensions at all levels. For example, a woman can concurrently increase her income but decrease her household decision-making power;^{18 19 20}
- WEE is a *process* involving resources, agency, and achievements that cannot be adequately described by a set of final outcomes alone (Table 1);^{21 22 23 24 25 26 27 28}
- Agency is often described as having four dimensions: power within (e.g., self-confidence), power to (e.g., apply for a job or open a bank account), power over (e.g., household expenditure decisions) and power with (e.g., advocate with a labor union for improved working conditions);^{29 30 31 32}
- Social norms and other contextual factors play an important role at the individual, household, and community levels, influencing how a woman perceives her own role in society, as well as the perceptions and beliefs of her family and community members;^{33 34 35}
- Indirect measures of agency and empowerment (e.g., women's education or job status) have been used widely in the past, but they can be misleading if used on their own. Direct measures (e.g., women's income gains or women's control over key household decisions) are preferable, where possible, and direct and indirect measures complement each other;^{36 37 38}
- Agency and empowerment are difficult to measure in part because they are subjective outcomes and in part because they are constantly changing and thus are difficult to observe;^{39 40 41 42}
- Much work remains to be done to develop, test, and adapt direct measures of agency and empowerment that are reliable and valid in local settings;^{43 44}

To clarify what is being measured, we drew a conceptual framework for WEE that is based on and synthesizes the rich literature on the topic.

FIGURE 1

Women's Economic Empowerment Framework

Source: Authors' illustration



A Guiding WEE Conceptual Framework

Figure 1 reflects the various dimensions of women's economic empowerment.

First, the figure from left to right shows that contextual and household factors define economic opportunities for women, both separately and jointly. For example, if a country's laws ban women from working in particular sectors or industries, women's range of economic opportunities in that context is limited. Or if a woman's husband prevents her from leaving the house unaccompanied, that household or family restriction on her mobility also limits her economic opportunities. And it is often the case that parents reinforce social norms and discourage their daughters from studying and applying for jobs in non-traditional male-dominant sectors such as engineering or information technology.

Contextual factors include the formal institutions (laws, regulations, and policies) and informal institutions (gender norms) that in most countries—to different degrees—constrain the exercise of women's agency and economic behavior. It is well known that in most countries there are laws that treat women (especially married women) and men differently, restricting women's ownership of assets or employment under certain conditions, or requiring married women to have the husband's signature for family and business transactions, among others.⁴⁵ In particular, traditional gender norms shape sectoral segregation in labor markets by sex. Sectors and occupations where men predominate—such as mechanics and tailors—are better paid than those where women predominate—such as beauticians and seamstresses.

Broader economic and demographic trends that define the nature and availability of jobs for men and women also affect differential access to economic opportunities by gender. Income-generating opportunities for women outside of agriculture are severely restricted in high fertility agrarian economies (i.e., those where most people work in subsistence agriculture and where birth rates are high, increasing women's care work burdens) but they expand in declining fertility, industrialized economies, and aging societies with dominant service sectors.

The different allocations of work and resources in the household to men and women—a result of traditional gender norms—further constrain women's economic opportunities. Women's unpaid household and care work, as well as their lower status in the family, can severely restrict their ability to seek any or better paid work that requires time and other household resources since they lack time, mobility, and household bargaining power.

Women's capabilities include individual (and community) endowments that enable them to exercise agency and take advantage of economic opportunities. These include health status, skills, abilities and educational achievements, self-confidence and risk preferences, economic and financial assets, and formal and informal networks.

Second, the figure shows that the process of empowerment, also referred to as the "exercise of agency" is the product of the interface of women's capabilities (their education, skills, and other capacities) and the economic opportunities available to them. This is an intermediate outcome that leads, thirdly, to a final WEE outcome, illustrated on the right.

The final WEE outcome has both an objective dimension (economic achievement) and a subjective dimension (economic empowerment).

Measures of economic achievement include gains in employment or in business profits, for instance. Measures of subjective empowerment include increased say in household decision making (e.g., how household income is used) or in independent decision-making regarding how a farm or business should operate or in increased self-efficacy, for instance. Both dimensions should be measured since they are not necessarily equivalent—economic advancement can occur without empowerment (as is the case of the businesswoman whose increased business profits resulted in increased time burdens and stress). The reverse is also true. For instance, the addition of childcare benefits in the workplace can be empowering for working women by allowing them to better manage caregiving and job responsibilities, even if these benefits do not increase women's income or produce other measurable changes in objective employment measures.

Overall, WEE, with its twin expressions of achievement and empowerment, is the product of contextual, household, and individual factors.

These factors impact women's exercise of agency, which in turn impacts their economic achievements and empowerment. There are feedback loops between women's capabilities, economic opportunities, and final outcomes, with both virtuous and vicious cycles. Women's economic empowerment not only strengthens women's capabilities but contributes to changing traditional gender norms and fosters social and economic progress for the next generation, promoting virtuous cycles.⁴⁶ In turn, vicious cycles (or "gender inequality traps") are perpetuated when women are caught in low productivity work in firms and on farms and are also saddled with care work burdens. This reinforces gender inequalities within

the household and further restricts economic opportunities for women and the next generation. In this way, the disempowerment of individuals (or communities) contributes to the perpetuation of restrictive social and economic contexts.

Kabeer's influential conceptualization of empowerment as "resources" leading to "agency" and resulting in "achievements" matches the different factors in this framework: "resources" summarizing the column that includes context, household, and individual factors; "agency" corresponding to intermediate outcomes; and "achievements" equivalent to the final outcomes in the figure.⁴⁷ Annex 1 lists the main dimensions included in the WEE framework and unpacks them in more detail.

Which Tools Are Included in the Compendium?

Key Takeaways

- The compendium reviews 20 PM tools and 15 M&E tools from an extensive search of relevant tools.
- All tools address one or more dimensions of the compendium's WEE conceptual framework.
- Many of the PM tools address different dimensions in the "resources" side of the WEE framework, such as laws and regulations, discrimination, and security.
- Most M&E tools focus on measuring WEE as a final outcome in both its objective and subjective dimensions, and many measure empowerment (the expression of agency) as an intermediate outcome.
- Tools differ in their objectives, the populations or sub-populations of women/girls that they focus on, and the indicators and data sources they use.

Applying the Conceptual Framework to WEE Tools

The conceptual framework outlined above guided our selection of the 34 tools reviewed in this compendium. We included tools that were designed to measure women's economic empowerment in its entirety, as well as tools that were designed to measure either a more specific or a broader WEE-related objective. The latter category of tools includes those focused more narrowly on a dimension identified in the framework (e.g., laws and regulations) and tools measuring gender equality more broadly (with WEE as a component). See Table 2.

As reflected in Table 2, one quarter of the PM tools we reviewed focused on measuring WEE as their main objective, whereas over half of the M&E tools have measuring WEE as their main objective. The remaining tools measure gender equality more broadly or a specific WEE-related dimension. Many of these latter tools address the "resources" side of the framework—that is, context, household, and individual factors that determine women's agency and economic behavior. Given the feedback loops between individual capabilities, economic opportunities, and intermediate and final outcomes, these tools also capture the result of economic empowerment or disempowerment: the virtuous or vicious cycles between women's economic empowerment and social and economic progress.

Selection of Tools

The compendium is limited to "complete" tools that provide sufficient information to identify their purpose and evaluate the technical quality of their content. A PM tool is considered complete if it includes: 1) a conceptual framework that identifies the tool's objective (e.g., WEE, gender equality) and its dimensions; 2) clearly defined indicators and data sources; 3) one or more indexes; and 4) a clear description of how the indexes are calculated. In addition, only PM tools that are intended for use in multiple countries are included in the compendium (i.e., subnational PM tools are not included). The compendium is limited to PM tools that include indexes, as distinct from dashboards of country-level indicators, because the resulting indexes are easier to read and interpret. Indexes also make it easier to rank countries and assess their progress over time in addressing complex issues like WEE. They also facilitate communication and promote accountability with stakeholders. The downside is that indexes may send misleading policy messages if they are poorly constructed or inappropriately used.

An M&E tool is considered complete if it includes: 1) a theory of change that identifies what type of change is expected to happen in a particular context as the result of actions taken; 2) clearly defined indicators of the expected changes (outcomes); and 3) clear information about the source(s) of the indicators. Information on the source of an indicator reveals its quality which depends both on the technical capacity of the organization that developed the indicator and the experience gained from testing and using the indicator in multiple countries. By comparison, indicators that are developed in connection with a single research project are unlikely to be as valid and reliable.

WHICH TOOLS ARE INCLUDED IN THE COMPENDIUM?

The compendium includes 20 population-monitoring tools and 15 project/program monitoring and evaluation tools, resulting from an extensive search for tools. More than half of the tools currently included in the compendium were identified initially through structured searches that yielded about 80 entries (See Annex 2 for search terms used). This list was updated with tools listed

in the most recent WEE compilations.^{48 49} The objective was to include as many as possible of the currently available tools that meet the inclusion criteria described above.

TABLE 2

List of Compendium Tools by Objective and Purpose

Source: Authors' categorizations

Tools Measuring a Framework Dimension(s) or Gender Equality		Tools Measuring WEE	
Population Monitoring Tools	<ul style="list-style-type: none"> AfDB Africa Gender Equality Index CFR Women's Workforce Inequality Index Economics Center of Sorbonne Multidimensional Gender Inequalities Index EU Gender Equality Index Georgetown University Women's Peace and Security Index ICEH Survey-based Women's Empowerment Index IDM Individual Deprivation Measure ISS Gender Equity Index OECD Social Institutions and Gender Index Equal Measures 2030 SDG Gender Index The Hunger Project Women's Empowerment Index UNDP Gender Development Index UNECA African Gender and Development Index WEF Global Gender Gap Index World Bank Women, Business and the Law Index 		<ul style="list-style-type: none"> EIU Women's Economic Opportunity Index GEDI Female Entrepreneur Index IFPRI Women's Empowerment in Agriculture Index IFPRI Project Women's Empowerment in Agriculture Index USAID Women's Economic Empowerment and Equality Dashboard
Monitoring & Evaluation Tools	<ul style="list-style-type: none"> Bill & Melinda Gates Foundation What Gets Measured Matters CARE Strategic Impact Inquiry J-PAL Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations OPHI Internationally Comparable Indicators Oxfam Women's Empowerment Index UCSD/GEH Evidence-Based Measures of Empowerment for Research on Gender Equality (EMERGE) UNSD Evidence and Data for Gender Equality (Project EDGE) 		<ul style="list-style-type: none"> DCED Private Sector Development DFID WOW Measurement of Women's Economic Empowerment GCP Common Measurement Framework for Gender Equity in the Coffee Sector GrOW Measuring Women's Economic Empowerment IFPRI Project Women's Empowerment in Agriculture Index Ipsos Measuring Women's Economic Empowerment UNF Measuring Women's Economic Empowerment World Bank Measuring Women's Agency

What Goes into a Tool?

In addition to their purpose (population monitoring or monitoring & evaluation), whose outcomes they reflect (e.g., women farmers or business owners, young women, or women more generally), the type of indicators tools include, as well as the data sources they draw upon, differentiate one WEE measurement tool from another.

Indicators

The indicators used by WEE measurement tools can be either objective or subjective.

Objective indicators report facts that are believed to be independent of individual perceptions or preferences (e.g., employment status, business profits or savings) while subjective indicators report opinions or preferences (e.g., perceived ability to make independent financial decisions, expressed preference for a savings product or a training course). Many particularly important WEE indicators seeking to capture women's self-perceived agency and empowerment are subjective (e.g., indicators of individual self-efficacy, self-esteem, self-confidence).

Indicators may be measured at the individual, household, community, or country level. PM tools use mainly country-level objective indicators because country-level subjective indicators are not available for many countries. However, several PM tools still include a few subjective indicators. In contrast, most M&E tools include a mixture of objective and subjective indicators measured most frequently at the individual level but also sometimes at the household and/or community level.

Data Sources

The indicators in PM tools are usually based on country-level secondary data. This is data assembled by another organization before it is used in a PM tool (e.g., the World Bank or specialized UN agencies) and is usually pulled either from administrative sources (e.g., national accounts or censuses) or from widely administered national household surveys (e.g., USAID's Demographic and Health Surveys (DHS) or UNICEF's Multiple Indicator Cluster Surveys (MICS)). However, some PM tools use their own primary data collected in specially designed household surveys.

The indicators in M&E tools are usually measured with primary data. This data is collected directly by the implementing organizations or by researchers evaluating projects using specially designed household surveys.

What Type of Tool Fits Your Purpose?

Key Takeaways

- PM tools usually calculate country indexes that allow users to compare countries' progress in WEE-related outcomes.
- PM indexes provide useful information for a variety of audiences, including, for instance, donors wishing to establish country partnerships and impact investors seeking promising countries for gender lens investments (those that seek to promote gender equality and generate a financial return). All PM tools are complete: they include a conceptual framework, indicators and data sources, and one or more indexes.
- M&E tools provide information on how to measure program (or project) WEE-related outcomes.
- M&E tools are primarily used by researchers and program implementers to monitor the effects of a program or study the program's impact on WEE-related inputs, outputs, and outcomes.
- PM tools and M&E tools can both be used, for instance, in the design of a new program where it is valuable to have an overall gauge of the state of WEE in the country, as well as to know what works to promote WEE from prior similar programs.

Population Monitoring (PM) Tools

Different actors seeking to understand changes in women’s economic empowerment require different types of measurement tools. Below we describe in more detail the two types of tools the compendium reviews: those aimed at 1) population monitoring and 2) program monitoring and evaluation (Table 3).

PM tools are those that typically reflect outcomes at a country level, allowing users to compare countries’ (or groups of countries’) progress in promoting WEE over time or in a given year. Many PM tools include an index that assigns country scores or ratings designed to provide a single snapshot of how a given country measures up to others. They may also include sub-indexes, which allow users to delve into more specific aspects of WEE (e.g., asset ownership, time use).

PM tools can be used by researchers, advocates, policymakers and implementers, and private

sector actors. Researchers can use the PM tool indexes in cross-national research, for example, on the determinants of education, health, or employment outcomes to represent the possible effects of WEE-related factors. The Equal Measures 2030 SDG Gender Index was designed to make it easy for in-country feminist advocates to identify areas where governments are meeting the Sustainable Development Goals related to gender equality and areas where they are not and draw upon this data to prioritize policy asks.

As for policymakers and implementers, the Women’s Empowerment in Agriculture Index (WEAI), for example, was designed alongside the United States Agency for International Development (USAID)’s Feed the Future initiative and is meant to inform the initiative’s efforts over time. The World Bank’s Women, Business and the Law underlying data has been used by the United States’ Millennium Challenge Corporation (MCC) in its country scorecard—the tool the agency employs to determine whether a country is eligible for an MCC partnership. The scorecard draws upon the Women, Business, and Law database reflecting legal barriers that prevent women’s equal treatment in the workforce and broader society.

TABLE 3

WEE Measurement Tools by Purpose

Source: Authors’ summaries

	Population Monitoring (PM) Tools	Monitoring & Evaluation (M&E) Tools
Purpose	<ul style="list-style-type: none"> • Measure WEE outcomes at national level • Enable comparison across countries 	<ul style="list-style-type: none"> • Measure WEE outcomes on a project/program level
Primary Audiences	<ul style="list-style-type: none"> • Advocates • Policymakers • Researchers • Private sector actors 	<ul style="list-style-type: none"> • Implementers • Researchers • Private sector actors
Level of Measurement	<ul style="list-style-type: none"> • Country • Country grouping (region, income group, etc.) 	<ul style="list-style-type: none"> • Project/program
Unit of Measurement	<ul style="list-style-type: none"> • Index (built from a group of indicators) 	<ul style="list-style-type: none"> • Individual Indicators

WHAT TYPE OF TOOL FITS YOUR PURPOSE?

Finally, the incipient but growing number of impact investors focused on investing with a gender lens—such as Alitheia Capital, a Nigeria based fund manager investing in women-owned SMEs, or the Graça Machel Trust, which also invests in women-owned SMEs—could use the AfDB Gender Equality Index or one of the gender equality global indexes to identify countries with policy and regulatory frameworks that accommodate or, ideally, facilitate gender lens investing.

Some tools will reflect the outcomes of specific groups of women and girls (e.g., farmers or entrepreneurs), though most PM tools are designed to reflect outcomes for women, or gender gaps, more generally. As shown in the examples above, some PM tools have a unique focus on women's economic empowerment or even more specific aspects of it (e.g., WEAI's focus on agriculture), whereas others are wider in scope and include WEE as just one component of a more broadly-framed index on gender equality (e.g., Equal Measures 2030's SDG Gender Index).

Selecting WEE Tools

Use of PM tools versus M&E tools

- PM tools use of composite indicators values communication and accessibility (thus favoring country rankings that are favored by the media) over analytic power and technical robustness while M&E tools are the opposite.
- PM tools interested in benchmarking over time (longer than one baseline and one endline) and across systems, M&E tools less so.
- PM tools are descriptive and speak to associations and correlations, M&E tools seek to generally measure causality and impact.
- PM tools are about "less" (or focused) data for busy policymakers—M&E tools are about "more" detailed data to meet demands of technicians, researchers, planners, and project managers
- PM tools are largely drawing on public data sources/public goods and thus are less costly than M&E tools which require intensive and expensive data collection exercises.
- PM tools are more dependent on lowest common denominator indicators due to availability and comparability than M&E tools.

Sources: Albert Motivans, personal communication (September 2020); Authors' summary

Choosing a WEE Measurement Tool for Your Purposes

There are a number of basic questions you can ask when deciding which WEE measurement tool is a good fit for your purposes. These include:

1. What is your desired objective? (population monitoring or M&E)
2. What is your substantive focus? (e.g., gender equality, women's legal rights, women's empowerment in agriculture)
3. What specific dimensions of WEE interest you? (e.g., financial inclusion, land rights)
4. What population of women are you seeking to learn about? (women globally, women entrepreneurs, women in Africa, etc.)
5. What level(s) of outcomes interest you? (M&E tools only)

Table 4 provides an overview of the main features of PM tools so that you can decide which tool may be best suited to your objectives. Table 7 does the same for M&E tools. For more information about specific indicators, see Annex 4 and Annex 6.

Monitoring & Evaluation (M&E) Tools

Although all 15 M&E tools share the common purpose of measuring WEE outcomes individually (as distinct from developing an index of multiple outcomes), some differ in the M&E activities they are best suited to support. Most are suitable for use in both traditional M&E (monitoring outcomes over time without attributing changes to specific interventions) and impact evaluation (efforts to attribute observed changes to specific interventions). However, some of the M&E tools are best suited for impact evaluations because their indicators are relatively complex, requiring the kind of expensive data collection that is only practical in impact evaluations. Meanwhile, other M&E tools are more suitable for traditional M&E because their indicators are simpler (often focused on inputs, outputs, and direct outcomes rather than intermediate or final outcomes) and therefore suitable for routine measurement at the project level.

M&E tools provide information on a more granular level, since their indicators are used to measure how an individual project or program influenced WEE-related inputs, outputs, and outcomes. Some M&E tools do this by simply comparing baseline and end-line values (e.g., the amount of money a woman has in her savings account before an intervention is implemented versus the amount of money she has saved following the intervention). These comparisons are often used in traditional M&E of individual projects, for instance, a project which offers a new digital savings product to businesswomen.

Other tools can be used in more ambitious scientific inquiries that seek to attribute an observed change in WEE-related outcomes to the intervention; M&E tools used for impact evaluations typically monitor the progress of WEE outcomes in a “treatment group” (those being targeted by an intervention) compared to a “control group” (those who do not receive the

intervention). In this scenario, program implementers (such as those from CARE, Oxfam, or Women for Women International) may call in external researchers (such as those from IPA, J-PAL, or the World Bank Gender Innovation Labs) to conduct randomized control trials (RCTs). RCTs, through their ability to compare a randomly chosen treatment and control group, can make room for stronger claims that a particular intervention caused an observed change in a given outcome, rather than being only correlated with the observed change in the outcome.

Like PM tools, some M&E tools have a unique focus on measuring women’s economic empowerment or even more specific aspects of it, whereas others are wider in scope and include WEE as just one component of a more broadly framed tool. CARE’s Strategic Impact Inquiry and DCED’s Private Sector Development are examples of the former while Project EDGE exemplifies the latter.

Though PM and M&E tools serve distinct purposes and therefore will be used by different sets of actors, they also serve some common purposes. For example, both PM and M&E tools can help to inform the design of new projects or programs. The design of new projects should always be informed by the specific context where they will be implemented, and PM tools can provide useful insights regarding countries’ existing gender gaps and what project implementers should prioritize. At the same time, new projects should be informed by rigorous evidence on “what works” to improve women’s economic outcomes, and M&E tools can be useful in distinguishing between interventions that are effective in improving WEE outcomes and those that are not. M&E tools may also help project implementers to identify more cost-effective interventions to achieve WEE outcomes.

Population Monitoring (PM) Tools

Key Takeaways

- The 20 PM tools vary in their objectives, dimensions, indicators, data sources, and coverage of countries and years.
- All PM tools calculate country indexes and/or sub-indexes.
- There are nine recommended steps to construct a technically sound index.
- Most PM tools follow at least some of the recommended steps—most have a clear conceptual framework, use stated criteria to select variables, have reliable data sources, and use standard procedures to convert data into comparable indicators. Around half use statistical analysis to assess the properties of their conceptual frameworks. However, most fail to analyze the implications of their numerous assumptions.
- The 20 PM tools include 312 PM indicators distributed across the different WEE framework dimensions.
- The “resources” column of the WEE conceptual framework is much better covered than the “agency” and “achievement” columns by PM indicators.

Population Monitoring (PM) Tools Overview

Figure 2 defines core elements of PM tools, and Table 4 summarizes the main features of the 20 WEE-related PM tools included in this compendium.⁵⁰ All 20 include a conceptual framework identifying their objective and its dimensions, clearly defined indicators and data sources, and one or more indexes. They vary significantly in their main features. PM tools' main objectives range from measuring gender equality (EU Gender Equality Index, SDG Gender Index, Global Gender Gap Index, Africa Gender Equality Index, Gender Development Index), to measuring women's agency (IFPRI Women's Empowerment in Agriculture Index (WEAI) and IFPRI Project-level Women's Empowerment in Agriculture Index (pro-WEAI)), to measuring women's legal rights and justice and security (World Bank Women, Business and the Law (WBL) and Georgetown University Women, Peace, and Security Index (WPS Index)). One tool (Individual Deprivation Measure (IDM)) measures multi-dimensional poverty, reflecting disempowerment, and another measures discrimination against women (OECD Social Institutions and Gender Index (SIGI)).

The tools vary in the number of dimensions they cover (such as education and asset ownership) and the number of indicators they include—from four indicators (UNDP Gender Development Index) to 51 indicators (SDG Gender Index). Five tools include only objective indicators (GEDI Female Entrepreneur Index, IDM, WBL, AfDB Africa Gender Equality Index, UNDP Gender Development Index); the rest include both objective and subjective indicators. Many tools capture information from many countries (128 or more). Tools that are based on primary data (six tools) cover fewer countries since they require data collection.

The number of years for which comparable country rankings are available varies considerably across tools. This is important if a potential user is interested in comparing trends over time. For example, the EU Gender Equality Index reports estimates for multiple years (e.g., 2005, 2010, 2012, 2015, and 2017) while the Global Gender Gap Index reports estimates annually for the period 2006–2018, although estimates are not available for all countries in every year.

All tools calculate one or more indexes. Sixteen tools calculate both sub-indexes and an overall country index. The Equal Measures 2030 SDG Gender Index, the Hunger Project's Women's Empowerment Index (WEI) and the ISS Gender Equity Index calculate only an overall country index while the USAID Women's Economic Empowerment and Equity Dashboard (WE3) calculates only sub-indexes.

FIGURE 2

From Theory to Index: Core Elements of PM Tools

Source: Authors' illustration

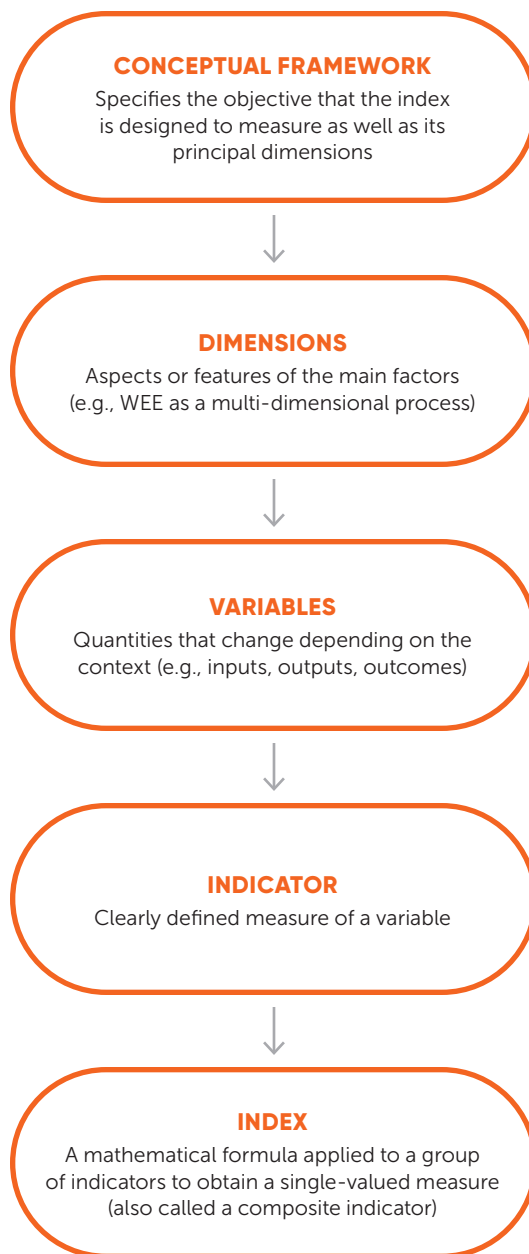


TABLE 4

Main Features of the Population Monitoring Tools Reviewed in the Compendium

Source: Authors' summaries

	Organization	Tool Focus	Population	Countries
Gender Equality Index	European Union	Gender equality	All women	28
SDG Gender Index	Equal Measures 2030	Gender equality	All women	129
Female Entrepreneurship Index (FEI)	GEDI	Women's business opportunity	Women entrepreneurs	77
Individual Deprivation Measure (IDM)^a	IDM	Multi-dimensional poverty	Males and females age 16+	3
Women's Empowerment in Agriculture Index (WEAI)^a	IFPRI	Women's empowerment in agriculture	Women working in agriculture	3
Project Women's Empowerment in Agriculture Index (pro-WEAI)^a	IFPRI	Women's empowerment in agriculture	Women working in agriculture	9
Social Institutions and Gender Index (SIGI)	OECD	Discrimination against women	All women	129
Women's Economic Empowerment and Equality Dashboard (WE3)	USAID	Women's participation in the economy	All women	180
Global Gender Gap Index	World Economic Forum	Gender equality	All women	134
Women, Business and the Law Index (WBL)	World Bank Group	Legal rights of women	All women	190
Women's Empowerment Index (WEI)^a	The Hunger Project	Women's empowerment	All women	8
Women, Peace, and Security Index (WPS Index)	Georgetown University	Women's inclusion, justice and security	All women	153
Women's Economic Opportunity Index (WEOI)	Economist Intelligence Unit	Women's economic opportunity	All women	128
Africa Gender Equality Index	African Development Bank	Gender equality	All women	54
Gender Development Index (GDI)	UNDP	Gender equality	All women	189
Women's Workplace Equality Index	Council on Foreign Relations	Legal barriers to women's economic participation	All women	189
Gender Equity Index	International Institute of Social Studies (Rotterdam)	Gender equity	All women	190
Survey-based Women's Empowerment Index (SWPER)	International Center for Equity in Health (Brazil)	Women's empowerment	Women in union in 34 African countries	34
Multidimensional Gender Inequalities Index (MGII)	Economics Center of Sorbonne (Paris)	Gender equality	All women	109
African Gender and Development Index (AGDI)	UN Economic Commission for Africa	Gender equality	All women	41

Continued on next page →

POPULATION MONITORING (PM) TOOLS

	Number of Dimensions ^b	Number of Indicators	Indicator Type		Data Source	
			Objective	Subjective	Primary	Secondary
Gender Equality Index	6	31	✓	✓		✓
SDG Gender Index	14	51	✓	✓		✓
Female Entrepreneurship Index (FEI)	3	30	✓			✓
Individual Deprivation Measure (IDM)	15	27	✓		✓	
Women's Empowerment in Agriculture Index (WEAI)	5	10	✓	✓	✓	
Project Women's Empowerment in Agriculture Index (pro-WEAI)	3	12	✓	✓	✓	
Social Institutions and Gender Index (SIGI)	4	27	✓	✓		✓
Women's Economic Empowerment and Equality Dashboard (WE3)	5(16)	47	✓	✓		✓
Global Gender Gap Index	4	14	✓	✓		✓
Women, Business and the Law Index (WBL)^c	8	35	✓		✓	
Women's Empowerment Index (WEI)	5	9	✓	✓	✓	
Women, Peace, and Security Index (WPS Index)	3	11	✓	✓		✓
Women's Economic Opportunity Index (WEOI)	5	29	✓	✓	✓	✓
Africa Gender Equality Index	3	38	✓			✓
Gender Development Index (GDI)	3	4	✓			✓
Women's Workplace Equality Index^d	7	56	✓			✓
Gender Equity Index	0	14	✓	✓		✓
Survey-based Women's Empowerment Index (SWPER)^e	3	15	✓	✓		✓
Multidimensional Gender Inequalities Index (MGII)	8	30	✓			✓
African Gender and Development Index (AGDI)^f	7	44	✓			✓

- a The number of countries refers to those in which the tool as designed has been piloted.
- b Number in parentheses refers to the number of sub-dimensions, the highest level for which an index is calculated in this tool.
- c Indicators are based on the legal framework faced by women residing in the country's main business city.

- d The number of variables for which scores are calculated was reduced from 50 to 35 in 2020, while the number of dimensions was increased to eight.
- e Indicators are based on DHS survey data from 34 African countries.
- f Indicators are based on ECA database.

How Useful or Reliable Are WEE-related PM Indexes?

To answer this question, we reviewed the choices made in the steps listed on page 35 to calculate indexes for the 20 PM tools (Annex 3).⁵¹ Most of the tools have followed at least some of the recommended steps (see below). For example, most of the tools report some criteria for selecting dimensions, including six tools which report using a participatory process involving experts. However, only the EU Gender Equality Index, the Equal Measures 2030 SDG Gender Index, and International Center for Equity in Health Survey-based Women's Empowerment Index (SWPER) report used statistical analysis to select their indicators. Notably, the EU's Gender Equality Index followed most of the recommended steps. Equal Measures 2030's SDG Gender Index also benefited from substantial statistical analysis by an external audit after the index was developed (see page 35).^{52 53}

1) A clear conceptual framework is present

A well-developed PM tool must start with a conceptual framework that explains the tool's objective (e.g., women's economic empowerment or gender equality) and its specific dimensions (e.g., legal framework or economic opportunities). Articulating a clear conceptual framework will help tool developers select the variables (e.g., equal rights legislation or employment) that will feed into the index.

Most tools provide a rationale for selecting the dimensions in their conceptual framework. For instance, the Equal Measures 2030 SDG Gender Index uses the 17 SDGs to build its framework and chooses 14 dimensions representing the 14 SDGs deemed most relevant for women. The GEDI Female Entrepreneur Index and the Global Entrepreneurship Index share similar conceptual frameworks. The framework of the IDM is the result

of a participatory process. The SWPER is alone among the tools in selecting its three dimensions on the basis of multivariate analysis.

2) Sound criteria are used to select variables and data sources

Variables need to be positively related to the index's overall objective and closely related to the specific dimension they represent. For instance, is the variable "a woman's contribution to household income" a better measure of the dimension "equal say in household decision making" than the variable that measures "her ability to control a significant proportion of household assets?" Tool developers' selection of specific variables will depend on their relevance within the tool's conceptual framework.

Most of the tools cite the use of some criteria to select their variables. The criteria used by six tools were developed in a participatory process involving experts (Equal Measures 2030 SDG Gender Index, IDM, pro-WEAI, WE3, WBL, and Economist Intelligence Unit Women's Economic Opportunity Index (WEOI)).

The variables selected should be available on a regular basis for most or all countries, as is the case with data from standard international sources (e.g., the World Bank or UN agencies). They should be easy to understand and be accurate and reliable measures of what they are intended to measure. For instance, for very small informal firms, business revenue may be a more practical and reliable measure of economic performance than business profits, which is more difficult to measure.

The majority of tools use secondary data mostly from standard international sources. In addition, five tools (IDM, WEAI, pro-WEAI, WBL, and WEI) use reliable data from specially designed surveys, SWPER uses data from DHS surveys in 34 African countries, and UN Economic Commission for Africa African Gender and Development Index (AGDI) uses country-level data bases for 41 African countries assembled by the UN Economic Commission for Africa that include both administrative (e.g., census) and survey data (e.g., LSMS, DHS, MICS, and labor force surveys).

3) Data is converted into comparable indicators; and

4) Missing data is imputed (or substituted by an estimate)

All the variables included in an index have to be directly comparable, in the same scale. For example, a variable that varies widely (e.g., income or savings) is not directly comparable with a variable that varies only within narrow limits (e.g., years of schooling). Depending on the way variables are combined in the index, the widely varying measure may exert more influence on the index and its country rankings than the narrowly varying measure. For these reasons, most of the variables included in an index are normalized (their values are changed to make them fully comparable with the other variables).⁵⁴ These adjustments effectively transform the variables into indicators.

Because some of the variables are not reported for all countries, an additional step may be necessary. In some cases, countries not reporting one or more variables may be dropped from the index. More commonly, however, the non-reported (missing) values are imputed based on values reported for another year or on values reported by similar countries (e.g., countries in the same region). If the number of missing values is large, such substitution can have an important effect on the index and its country rankings.

Substantial adjustments to the raw data were made in several tools to create a database of comparable indicators, including imputing missing values⁵⁵ in six tools (EU Gender Equality Index, Equal Measures 2030 SDG Gender Index, WE3, WPS Index, WEOI, and SWPER); trimming extreme values (outliers) in two tools (Equal Measures 2030 SDG Gender Index and GEDI Female Entrepreneur Index) and; converting values to a common metric (normalizing) in 12 tools (EU Gender Equality Index, Equal Measures 2030 SDG Gender Index, SIGI, WE3, WEF Global Gender Gap Index, WEI, WPS Index, WEOI, AfDB Africa Gender Equality Index, UNDP Gender Development Index, ISS Gender Equity Index, and Economics Center of Sorbonne Multidimensional Gender Inequalities Index).⁵⁶ In addition, the indicators in three tools are

defined on the basis of responses to multiple survey questions (Individual Deprivation Measure, WEAI, and pro-WEAI) using cutoff values that are based on country-specific formative research.

5) Statistical (multivariate) analysis examines the full data set of indicators

Multivariate statistical methods should be used to finalize the dimensions and identify the best indicators to measure each dimension. In some cases, the conceptual framework and the list of variables are revised on the basis of results obtained from the multivariate analysis. For instance, indicators that are only weakly correlated across all dimensions can be dropped from the index as their inclusion will have little effect on the index. Similarly, when two or more indicators are very highly correlated (for example, a correlation coefficient of 0.9 or higher), unless there is a substantive reason, only one of them needs to be included as the others will be redundant and can even distort the index, depending on the aggregation formula and weighting scheme used.

Eleven PM tools used at least some multivariate analysis to assess the properties of their conceptual frameworks: EU Gender Equality Index, Equal Measures 2030 SDG Gender Index, WEAI, pro-WEAI, SIGI, WPS Index, WEOI, ISS Gender Equity Index, SWPER, and Multidimensional Gender Inequalities Index.

6) Indicators are weighted and aggregated to obtain the country index

Once a complete data set of indicators has been assembled, indicators need to be aggregated into sub-indexes and the sub-index values into an index whose single value reflects the country's overall score. Some tools take a simple average of all the indicators to calculate the overall index, effectively ignoring the sub-indexes. This, however, ignores the complex nature of WEE and may allow dimensions with more indicators to have more influence on the index and its country rankings. **Instead, most of the indexes reviewed calculate the overall country index as a function of sub-indexes calculated separately for the variables in each dimension.**

What Goes Into Building a PM Index?

Index construction is not trivial, and the numerous decisions involved⁵⁸ can significantly affect the resulting country rankings. Good practice, therefore, also requires an assessment of the effects of each decision made (step 7).

Source: Nardo Michela, Saisana M., Saltelli A., Tarantola S., Hoffmann A., Giovannini E. 2008. *Handbook on Constructing Composite Indicators: Methodology and User Guide*. OECD and JRC. <https://www.oecd.org/sdd/42495745.pdf>.

Nine Recommended Steps to a Technically Sound Index

1. Developing a conceptual framework that defines and structures what is measured (including its various dimensions) and provides the basis for selecting and combining variables into a meaningful index.
2. Selecting variables and data sources based on the analytical soundness, measurability, country coverage, cross-country comparability, and relevance of the indicators.
3. Converting the data to a common scale (also called “normalizing the data”), as needed, to ensure the comparability of the indicators.
4. Imputing or replacing missing data with a substitute value to obtain a complete data set for all countries.
5. Conducting a statistical (multivariate) analysis to study the overall structure of the data set, assess its suitability, and guide subsequent methodological choices.
6. Weighting and aggregating indicators consistent with both the conceptual framework and the results of the multivariate analysis.
7. Conducting further statistical analyses (uncertainty and sensitivity analysis) to assess how robust is the index in terms of the many choices made during its development.
8. Returning to the data in order to analyze which dimensions are driving the index results.
9. Identifying possible association with other variables as well as with existing known and commonly used indexes.

An aggregation formula and weights must be selected to calculate the sub-indexes and the overall index. A simple (unweighted) average of the indicators to obtain sub-indexes and a simple average of the sub-indexes to obtain the overall index is the simplest aggregation formula. With this formula, all indicators in a sub-index have the same weight or importance. **A majority of the tools in the compendium use the simple average to aggregate the sub-indexes to the overall index.** However, nine of the PM tools either use an alternative formula (seven tools) or do not calculate an overall index (two tools).

Alternatively, sub-indexes can be assigned unequal weights to give them more influence on the overall index and its country rankings. Two of the 20 PM tools use unequal weights in calculating their sub-indexes (GEDI Female Entrepreneur Index and SWPER), and six tools use unequal weights in calculating their overall index (EU Gender Equality Index, WEAI, pro-WEAI, WEI, ISS Gender Equity Index, and Multidimensional Gender Inequalities Index). In some tools the weights may be arbitrary, but in others they are analytically derived (EU Gender Equality Index, ISS Gender Equity Index, and Multidimensional Gender Inequalities Index) or based on formative or participatory research (WEAI and pro-WEAI).

Unfortunately, there is no way to determine the “best” aggregation formula or weights to use in a given index. All choices (including equal weights) can have important effects on the country rankings, therefore the importance of assessing the sensitivity of the country rankings to the methods used (step 7).

7) Statistical analysis assesses the robustness of the country rankings to procedures used

The many choices made in developing an index can affect country rankings. Tools should ideally obtain and report a confidence interval bracketing the country ranking. **Few PM tools report the results of a robustness analysis of the country rankings.** EU Gender Equality Index, Equal Measures 2030 SDG Gender Index, and pro-WEAI report these results. **In the absence of such information, users of a PM tool are advised to exercise caution in drawing firm conclusions on the basis of the country rankings.**

8) Dimensions are re-examined; and

9) Country rankings are compared to those obtained with other indexes and key development indicators

Finally, it is important to assess which dimensions (for instance, laws and regulations, education, and health) are driving the country rankings and compare the country rankings obtained with one WEE index to those obtained using other WEE indexes as well as to the rankings based on other key development indicators, such as UNDP’s Human Development Index (HDI) or per capita GDP, to assess the extent to which the country rankings based on the index parallel those obtained from other country-level measures. These comparisons are useful to check the technical soundness of the index.

Ten PM tools report the results of at least some external assessments of their indexes. For instance, the Global Gender Gap Index is positively correlated with both GDP per capita and with the Human Development Index (HDI); the World Bank Women, Business and the Law is positively and significantly correlated with female-to-male ratios of labor force participation rates and estimated earned income; and the ISS Gender Equity Index is positively correlated with GDP per capita (PPP).

EU Gender Equality Index and Equal Measures 2030's SDG Gender Index

Steps followed by EU Gender Equality Index

- A conceptual framework was formulated for the objective of gender equality on the basis of EU gender equality policy, with six dimensions and 12 sub-dimensions;
- An initial set of indicators was selected to represent each of the sub-dimensions, all measured using Eurostat data that are harmonized across member states;
- All of the indicators were re-oriented, as needed, to measure gender equality (instead of inequality) and were divided by appropriate reference populations (e.g., labor force participation by the active population);
- All indicators were then converted to a common metric ("normalized");
- Multivariate analysis was used to compare the actual data structure to the conceptual framework and as input into the final set of indicators. A couple of the sub-dimensions were adjusted and the list of 27 indicators was finalized;
- A total of 3,636 different overall index values were calculated based on alternative assumptions concerning imputation of missing values, weighting schemes and aggregation formulas. The optimal index was selected as the one that minimized the differences across countries between the index value and the country-specific median index values.

Source: European Institute for Gender Equality. 2015. "Gender Equality Index Report." <https://eige.europa.eu/publications/gender-equality-index-2015-measuring-gender-equality-european-union-2005-2012-report>

Steps Followed by Statistical Audit of Equal Measures 2030's SDG Gender Index

Equal Measures 2030's SDG Gender Index measures gender equality in 129 countries. Its conceptual framework is anchored in the 17 SDGs.

- The 51 Equal Measures 2030 SDG Gender Index variables were re-oriented as necessary so that higher values signify better outcomes;
- The indicators were normalized (i.e., converted to values between zero and one);
- The SDG Gender Index uses equal weights in aggregating from the indicators;
- Two variables with apparent outliers (unusually large values) were trimmed (the highest 2.5% of their values were changed to the next highest value);
- Missing values were imputed based on data for similar countries or regional averages;
- All variables were rescaled to values between 0 and 100.

The JRC audit found one indicator that is negatively correlated both to its own goal and to the overall index (even after having been re-oriented) and that several pairs of indicators were so highly correlated as to be redundant. The JRC audit also performed sensitivity analysis to assess how several of the SDG Gender Index's modeling assumptions affect the country rankings, finding that most of the rankings were robust with respect to changes in the assumptions.

Sources: Equal Measures 2030. 2019. "Global Report 2019," <https://www.equalmeasures2030.org/products/global-report-2019/>

Papadimitriou, Eleni and Giulio Caperna. 2019. "JRC Statistical audit of the Equal Measures 2030 SDG Gender Index," Joint Research Center, European Union. <https://data.em2030.org/wp-content/uploads/2019/07/JRC-audit-SDG-Gender-Index.pdf>

Inventory of PM Indicators

We used the compendium’s WEE conceptual framework as an organizing principle to compile country-level WEE indicators. The resulting compilation includes 312 PM indicators, distributed in Table 6 across the different WEE framework dimensions. (Table 5 above summarizes desirable characteristics of indicators in general). It is worth noting that the need to have subjective indicators for several important WEE outcomes overrides the usual M&E preference for objective indicators stated in Table 5. Indicators were compiled from the 14 PM tools that are based on secondary data available for 50 or more countries and from three dashboards: the APEC Women and the Economy Dashboard, UNDP’s Life-course Gender Gap Dashboard (UNDP1), and the Women’s Empowerment Dashboard (UNDP2).⁵⁷

Annex 4 lists the 312 indicators along with the PM tool(s) using each indicator and the data sources for each indicator (when identified). Seventy-eight indicators (25%) are used by more than one of the PM tools or dashboards (including 23 used by three or more tools).

Table 6 and Figure 3 show uneven indicator coverage across dimensions, ranging from only 10 indicators covering household factors (i.e., intra-household allocation of work, resources, and decision-making), compared to 79 indicators covering laws, regulations, and policies (formal

institutions) and 69 indicators covering economy/job market features. Because the indicators are listed by the conceptual framework dimensions, a reader interested in specific WEE dimensions should be able to identify the tools that are relatively strong in those dimensions by referring to Annex 4.

The “resources” side of the WEE framework is much better covered than the “agency” and “achievement” sides by PM tools. This is not surprising, since the indicators in these PM tools are based on secondary data sources from household and other types of surveys not designed explicitly to measure WEE. Similarly, many of the PM tools themselves were not designed explicitly to measure WEE but rather a WEE-related dimension identified in the framework or gender equality more broadly, and therefore may not cover core WEE elements, such as a voice in household decision-making or agency.

Notwithstanding, this uneven coverage of the dimensions of the WEE conceptual framework underscores the fact that most PM tools can only give an imperfect reading of WEE and calls attention to important gaps in the available country-level data, including in particular, in the areas of empowerment, agency, and the intra-household allocation of work and resources.

TABLE 5

Desirable Characteristics of Indicators

Source: Knowles, James C. 2015. "Monitoring and Evaluation Guidelines for Women's Economic Empowerment Programs," UN Foundation. <http://www.womeneconroadmap.org/sites/default/files/Monitoring%20and%20Evaluation%20Guidelines.pdf>

Criteria	Evaluation Question	Criteria	Evaluation Question
SIMPLE	Is the information conveyed by the indicator easily understandable and appealing to the target audience?	PRECISE	If the indicator is estimated with survey data and is re-estimated with a new set of data, is the expected level of variation in the value acceptable?
CLEAR	Is it clear what the indicator is attempting to measure? Does the indicator attempt to measure only one result?	VERIFIABLE	Can the indicator's value be corroborated through re-measurement by another evaluator?
VALID	Does the indicator accurately reflect the result it is intended to measure?	TARGETED	Is the group targeted by the result clearly reflected in the indicator (gender, age, socioeconomic status)?
SENSITIVE	Is the indicator sensitive to change in the result while being relatively insensitive to other changes?	OBJECTIVE	Is the indicator objective (directly observable) or is it subjective (based on someone's opinions)?
RELIABLE	Can data be collected using scientifically defensible methods that produce consistent estimates in repeated measures?	ADEQUATE	Does the indicator adequately represent the result, or does it only reflect one aspect of the result?
PRACTICAL	Are good-quality and timely data available and affordable to measure the indicator?		

FIGURE 3

Number of PM Tool Indicators by Conceptual Framework Element

Source: Table 6

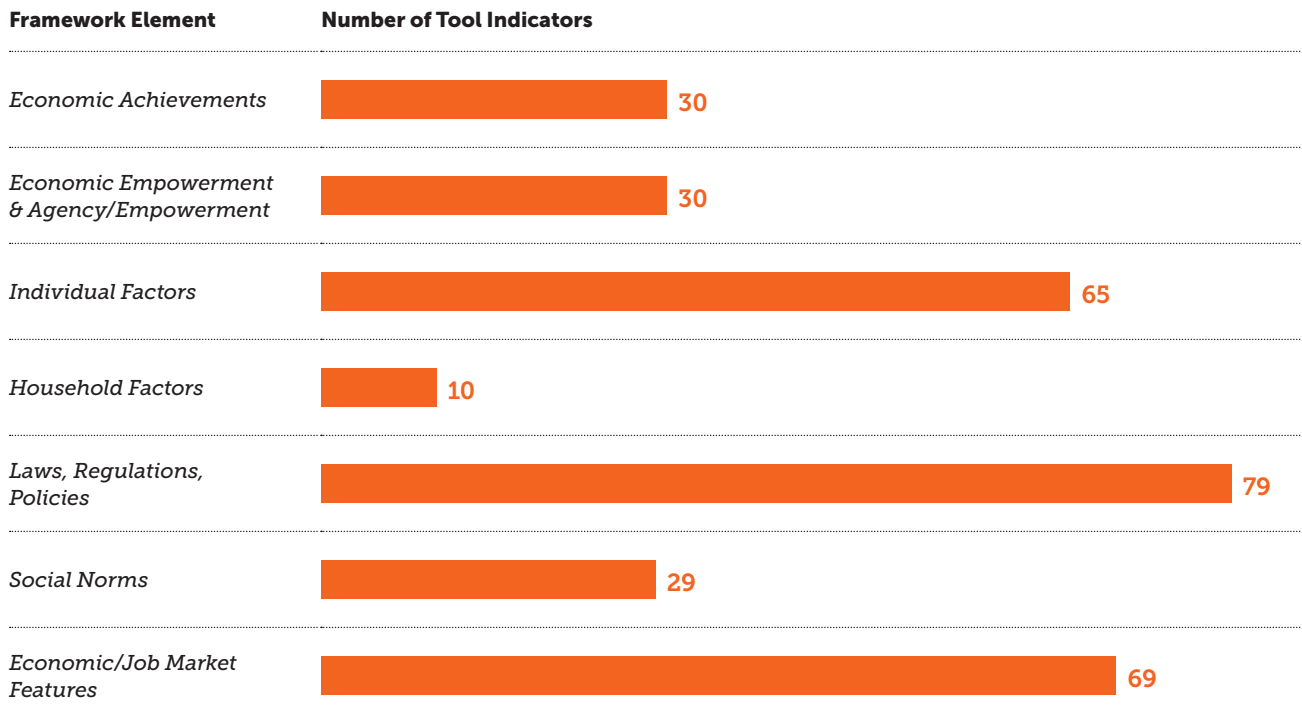


TABLE 6

Number of Indicators in PM Tools by Conceptual Framework Dimension (312 Total)

Source: Annex 4

Factor or Dimension	Indicators	Factor or Dimension	Indicators
ECONOMIC ACHIEVEMENTS	30	HOUSEHOLD FACTORS (INTRA-HOUSEHOLD ALLOCATION OF WORK AND RESOURCES)	10
Income (all sources)	6	Division of household work and child/elder care	4
Savings (financial)	1	Bargaining power inside the household	5
Household and business assets	3	Ability to make or participate in decisions about household expenditures	1
Amount of leisure time	3		
Vulnerability to shocks	1	CONTEXT FACTORS: LAWS, REGULATIONS, POLICIES (FORMAL INSTITUTIONS)	79
Type and quality of work (e.g., formal-informal, job security, access to benefits)	16	Property rights (i.e., right to purchase, own, sell, transfer and bequeath productive assets)	13
		Absence of gender discrimination in legal codes and regulations (e.g., work, marriage, divorce)	34
ECONOMIC EMPOWERMENT & AGENCY/EMPOWERMENT	30	Protection against violence and sexual harassment	23
Control over household expenditure	1	Equal right to start and operate a business	9
Control over savings and investment	0		
Control over productive assets (including documented ownership, use, purchase, sale, transfer and right to inherit and bequeath)	3	CONTEXT FACTORS: SOCIAL NORMS (INFORMAL INSTITUTIONS)	29
Increased financial independence/autonomy	4	Attitudes toward gender roles (e.g., work away from home, starting a business)	18
Absence of stress/economic well-being ("peace of mind")	4	Women's freedom of mobility	11
Leadership roles	14		
Self-confidence/self-esteem	4	ECONOMIC/JOB MARKET FEATURES	69
		Availability of paid work	10
INDIVIDUAL FACTORS (INDIVIDUAL CAPABILITIES)	65	Ability to work in male-dominated occupations	15
Health	25	Absence of discrimination in wages and benefits	4
Education (including basic literacy and numeracy, digital and financial literacy)	30	General business environment	7
Willingness to take risks, optimism, determination (grit)	2	Women's access to business and financial services (e.g., open a bank account, borrow money)	18
Soft skills (e.g., teamwork)	3	Women's access to markets (e.g., agriculture, business, international trade)	4
Work experience	0	Availability of infrastructure (e.g., transportation, communications, electricity, water & sanitation)	8
Personal access to networks	3	Social capital (e.g., existence of networks, social cohesion, trust, community cooperation)	3
Participation in women's advocacy organizations, cooperatives and labor unions	2		

Monitoring & Evaluation (M&E) Tools

Key Takeaways

- We prioritize the review of “complete” tools—those that have an articulated theory of change, as well as clearly defined indicators and underlying sources.
- Most M&E tools we review reflect outcomes for all women, but some focus on more specific populations.
- Different M&E tools are suited to support different activities, including traditional M&E and impact evaluations.
- Tools vary in the number of dimensions and indicators they include.
- M&E tools contain lists of indicators that capture individual, household, and community-level outcomes.
- The usefulness of an M&E tool can be gauged by the amount of information it provides about its underlying theory of change and the selection, definition, and measurement of its indicators.
- The tools we review vary in their usefulness according to these criteria.

Monitoring & Evaluation (M&E) Tools Overview

Table 7 lists the main features of the 15 M&E tools that are reviewed in the compendium. All 15 share the common purpose of M&E to measure individual outcomes (e.g., new employment, increased savings, and improved self-esteem).⁵⁹ Most of the M&E tools focus on WEE, including measuring agency in particular. The majority of the tools reflect outcomes for all women, though some focus on more specific groups such as women working in agriculture, the private sector, the coffee sector, and both urban women entrepreneurs and business leaders and rural women entrepreneurs and farmers (Figure 4 illustrates a results chain based on a theory of change for an economic empowerment and entrepreneurship program).

Another major difference among the M&E tools is in the activities they are best suited to support.⁶⁰

Nine are most suitable for use in both traditional M&E and impact evaluation, four are best suited for impact evaluation, and two are best suited for traditional M&E. As discussed in section 4, this distinction is based on the degree of complexity in each tool's indicators. The tools suited to each purpose are reflected in Table 7.

Eight of the M&E tools have five or more dimensions in their results frameworks while two focus on a primary objective (e.g., measuring assets or measuring outcomes for women in the coffee sector) without additional dimensions (GCP Common Measurement Framework and EDGE).

Thirteen of the M&E tools have ten or more indicators, with a minimum of five and a maximum of 81.

Most of the tools use both objective and subjective indicators reflecting the importance of both kinds of indicators to measure WEE; two use only objective indicators (EDGE and GCP Common Measurement Framework) and; one uses only subjective indicators (World Bank Measuring Women's Agency). The level of measurement also varies from measuring only individual outcomes to measuring individual, household, and community outcomes.

What Goes into a WEE M&E Tool?

M&E tools are essentially lists of WEE or WEE-related indicators, including those focused on individual level outcomes: women's employment and income, savings and other household and business assets, self-esteem, health, education and skills, and access to networks. Some also include household and community-level indicators related to division of unpaid care work and decision-making power within households and surrounding social norms, laws, policies, and job opportunities.

FIGURE 4

Results Chain for an Economic Empowerment and Entrepreneurship Program⁶¹

Source: Knowles, James C. 2015. "Monitoring and Evaluation Guidelines for Women's Economic Empowerment Programs," UN Foundation. <http://www.womeneconroadmap.org/sites/default/files/Monitoring%20and%20Evaluation%20Guidelines.pdf>

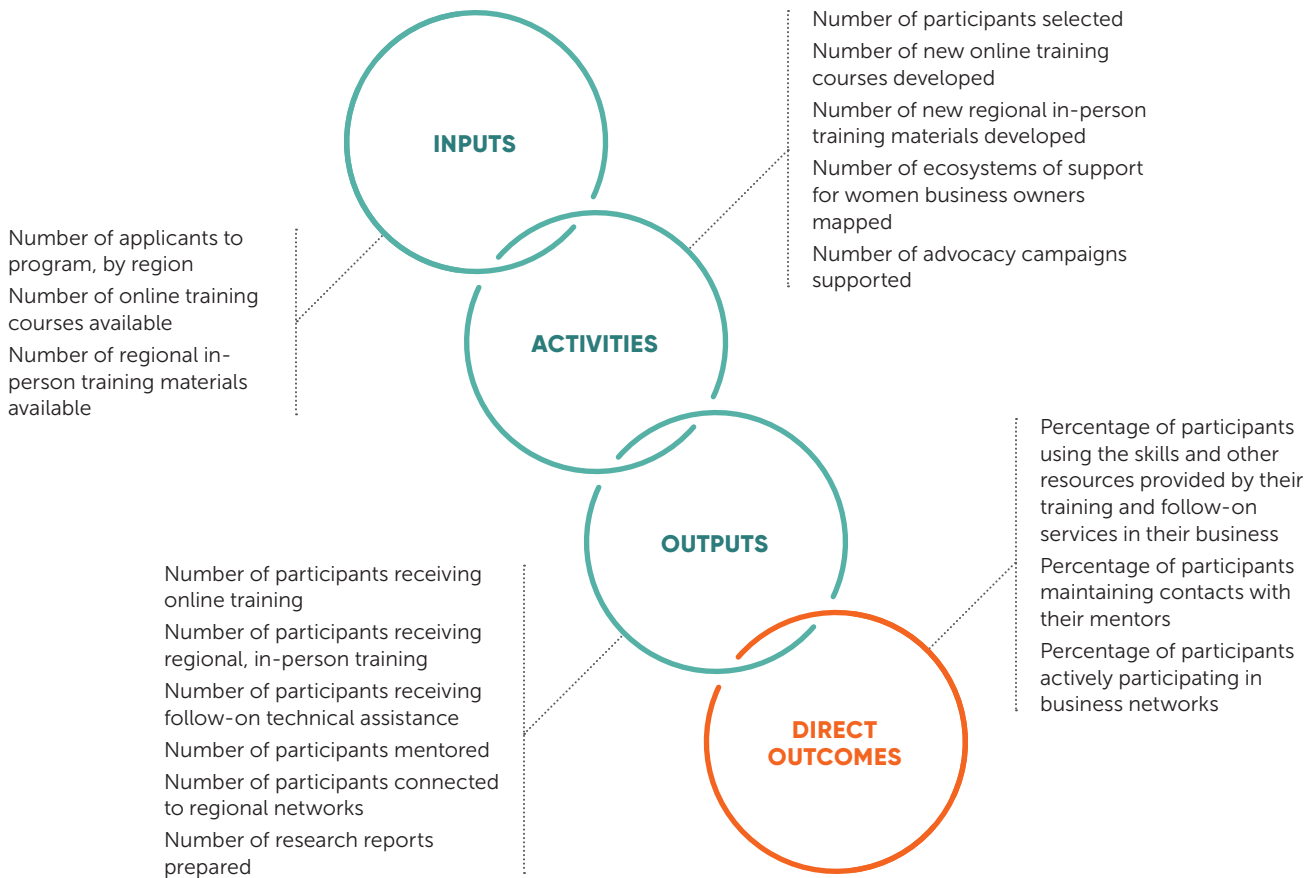


TABLE 7

Main Features of the Monitoring & Evaluation Tools Reviewed in the Compendium

Source: Authors' summaries

	Organization	Purpose & Activities	Tool Focus	Population
<u>Project EDGE (EDGE)</u>	UN Statistics Division	Traditional M&E and impact evaluation	Gender equality	All women
<u>Project Women's Empowerment in Agriculture Index (pro-WEAI)</u>	IFPRI	Traditional M&E and impact evaluation	Women's agency	Women working in agriculture
<u>Strategic Impact Inquiry</u>	CARE	Impact evaluation	Women's empowerment	All women (especially poor women)
<u>Private Sector Development</u>	DCED	Traditional M&E	WEE	Women working in the private sector
<u>Common Measurement Framework</u>	Global Coffee Platform (GCP)	Traditional M&E	WEE	Women working in the coffee sector
<u>Internationally Comparable Indicators</u>	OPHI	Traditional M&E and impact evaluation	Agency and empowerment	All women
<u>Women's Empowerment Index</u>	Oxfam	Impact evaluation	Women's empowerment	All women
<u>Measuring Women's Economic Empowerment</u>	UN Foundation	Traditional M&E and impact evaluation	WEE	Urban and rural women business owners, rural women farmers
<u>Measuring Women's Economic Empowerment</u>	Ipsos	Traditional M&E and impact evaluation	WEE	All women
<u>Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations</u>	J-PAL	Impact evaluation	Women's empowerment	All women
<u>Evidence Based Measures of Empowerment for Research on Gender Equality (EMERGE)</u>	UCSD/GEH	Impact evaluation	Gender equality and empowerment	All women
<u>IDRC GrOW Measuring Women's Economic Empowerment</u>	GrOW	Traditional M&E and impact evaluation	WEE	All women
<u>Measuring Women's Agency</u>	World Bank	Traditional M&E and impact evaluation	Women's agency	All women
<u>What Gets Measured Matters</u>	Gates Foundation	Traditional M&E and impact evaluation	Women and girls' empowerment	All women
<u>WOW Measurement of Women's Economic Empowerment</u>	DFID (UK)	Traditional M&E and impact evaluation	WEE	All women

Continued on next page →

MONITORING & EVALUATION (M&E) TOOLS

	Number of Dimensions	Number of Indicators	Indicator Type		Level of Measurement		
			Objective	Subjective	Individual	Household	Community
Project EDGE (EDGE)^a	0	24	✓		✓	✓	
Project Women's Empowerment in Agriculture Index (pro-WEAI)	3	12	✓	✓	✓		
Strategic Impact Inquiry	17	23	✓	✓	✓		✓
Private Sector Development	7	17	✓	✓	✓	✓	✓
Common Measurement Framework	0	16 ^b	✓		✓		
Internationally Comparable Indicators	4	5	✓	✓	✓		
Women's Empowerment Index	5	24	✓	✓	✓		
Measuring Women's Economic Empowerment	14 ^c	32 ^c	✓	✓	✓	✓	
Measuring Women's Economic Empowerment	3	49	✓	✓	✓	✓	✓
Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations	7	37	✓	✓	✓	✓	
Evidence Based Measures of Empowerment for Research on Gender Equality (EMERGE)	9	300+	✓	✓	✓	✓	✓
IDRC GrOW Measuring Women's Economic Empowerment	16	81	✓	✓	✓	✓	✓
Measuring Women's Agency	3	7		✓	✓		
What Gets Measured Matters^a	3	35 ^d	✓	✓	✓	✓	✓
WOW Measurement of Women's Economic Empowerment^a	5	48	✓	✓	✓		

a EDGE, What Gets Measured Matters, and WOW indicators are redefined from the community level to individual and household levels to be more suitable for typical M&E applications.

b Number of indicators refers to intermediate outcomes.

c Numbers of dimensions and indicators refer to final and intermediate

outcomes only.

d Refers to number of indicators with identified sources.

How Useful or Reliable Are WEE M&E Tools?

The utility of individual M&E tools depends on whether tool developers provide information in the following areas:

1. Theory of change (results framework);
2. Evidence supporting the causal links in their theories of change;
3. Criteria used to select the indicators;
4. Clarity in the definitions of the indicators;
5. Quality of the indicators and;
6. Methods used to measure the indicators

Annex 5 details the extent to which the 15 tools we review include these features. Each feature's importance and the extent of its inclusion in the tools are summarized below.

1) A theory of change is present.

All indicators included in a given tool should be linked to a theory of change that identifies their causal links to final outcomes and is summarized in a results framework. Notably, this theory of change does not have to be as comprehensive as the conceptual framework we introduced above (i.e., cover every aspect of WEE or broader gender equality), but it should state proposed linkages between observed outcomes. For example, a tool being used to evaluate an intervention on women's financial inclusion should specify how indicators focused on women's access to financial services or financial literacy relate to other aspects of economic empowerment (e.g., savings, business profits). This will help users understand the relevance of each individual indicator being used in an evaluation framework.

Theories of change can be helpful to tools' users in determining why an observed impact has (or has not) occurred. If impact has not occurred, examining the measured changes along the results

chain may indicate why impact failed to occur (e.g., why a program was unable to increase a woman's ability to save—perhaps because the program did not improve her financial literacy skills, or did not address pressures from other household members to share earned income rather than save it).

Eights of the 15 M&E tools we review include one or more theories of change showing how the various elements in their conceptual frameworks are causally linked (EDGE, Strategic Impact Inquiry, Oxfam Women's Empowerment Index, UNF Measuring Women's Economic Empowerment, and J-PAL Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations, and Gates What Gets Measured Matters). Most of these theories of change are limited to intermediate and final outcomes, and therefore allow having a variety of different inputs and outputs (for instance, a financial literacy training as the input, resulting in acquiring financial knowledge as the output). Two tools include results frameworks that show that final WEE outcomes lead to other development outcomes (e.g., economic growth and poverty reduction).

2) Rigorous evidence supports the theory of change.

The causal links in the theory of change should be supported by a credible body of evidence.

This underlying evidence allows tool users to feel confident in the validity of the proposed theory of change and therefore in the relevance of the proposed indicators. Tool developers can draw on the rapidly growing number of WEE-related randomized experiments, including several meta-analyses of their findings.^{62 63 64 65 66} Four tools report significant evidence in support of the causal links in their theories of change. Both the UNF Measuring Women's Economic Empowerment tool (in its constituent *Roadmap*) and the J-PAL Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations tool, in particular, cite extensive evidence from rigorous evaluations in support of the causal links in their theories of change.

3) Criteria for selecting indicators are clearly articulated.

Indicators should be carefully selected, using clearly stated criteria, so that tool users understand why particular indicators have been chosen over others that may appear to reflect the same content. Most M&E tools list the specific criteria used in selecting their indicators or mention that their indicators were selected on the basis of formative research or a participatory process. For example, the EMERGE tool states that indicators “should be quantitative” and selected from a large national, multi-state, or multi-country survey or a peer-reviewed publication.⁶⁷

4) Indicators are clearly defined.

Indicators should be clearly defined to allow users to understand the precise nature of what they are measuring. When indicators are based on *quantitative variables* (e.g., income or savings), they can usually be used directly as indicators. However, when they are based on *categorical variables* (e.g., level of schooling or decision-making), defining an appropriate indicator can be more complicated. In the pro-WEAI tool, for example, the indicator “Ownership of land and other assets” is defined as follows: “Owns, either solely or jointly, at least ONE of the following: 1) At least THREE small assets (poultry, non-mechanized equipment, or small consumer durables), 2) At least TWO large assets, 3) Land.”⁶⁸ This means that tool users should dig a bit deeper to fully understand the details behind an indicator’s value.

Although it is very helpful for an M&E tool to provide sample survey questions to collect the data needed to measure its indicators, sample survey questions need to be accompanied with recommendations about how the indicators should be defined on the basis of the responses.

Seven of the M&E tools include clear definitions of their indicators (EDGE, pro-WEAI, GCP Common Measurement Framework, Oxfam Women’s Empowerment Index, UNF Measuring Women’s Economic Empowerment, EMERGE, and WOW Measurement of Women’s Economic Empowerment), whereas the indicators are not clearly defined in the eight other M&E tools (although clear definitions may be available in their references sources).

5) Indicators are of high quality.

The indicators should be of high quality. The most important qualities of an indicator are its validity and reliability, i.e., how accurately and consistently it measures what it is supposed to measure.⁶⁹ In addition to an indicator’s validity and reliability, other qualities are also important. These include the ready availability of survey instruments for data collection and how much it costs to collect data. Other desirable properties of indicators are listed above in Table 7.

The highest quality indicators are likely to be those in the large, established international survey programs like the Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and Living Standards Measurement Study (LSMS) that have been carefully developed, tested and used in numerous countries. Three of the M&E tools draw most of their indicators from standard international sources (OPHI Internationally Comparable Indicators and Oxfam Women’s Empowerment Index, WOW Measurement of Women’s Economic Empowerment). The other M&E tools derive most of their indicators from standalone surveys, where the quality of the indicators depends on the individual survey effort.

6) Methods used to measure indicators are articulated.

Because M&E indicators are designed to be measured with primary data, appropriate data collection procedures should be described and used (e.g., how to obtain unbiased information on sensitive topics such as partner violence).

Questionnaire design is a particularly important aspect of data collection, as described in Buvinic and Furst-Nichols and Glennerster et al.^{70 71} Most M&E tools include sample questions (or sample questionnaire modules) for collecting the data needed to measure their recommended indicators. About half indicate testing and adapting questions when used in a new context through careful formative research, and they provide specific recommendations for obtaining good-quality, unbiased data in challenging circumstances. The EDGE, CARE Strategic Impact Inquiry, J-PAL and Gates What Gets Measured Matters tools provide detailed information on data collection.

Based on our review, the EDGE tool provides the most complete information on its indicators, which are more narrowly focused on asset ownership. The UNF Measuring Women's Economic Empowerment and Oxfam's Women's Empowerment Index tools are more useful as general sources of WEE indicators. Together, they account for 38 of the 164 indicators (23.2%) listed in the compilation of M&E indicators in Annex 6. Both tools are well suited for use in impact evaluations. However, the UNF Measuring Women's Economic Empowerment tool is probably better suited for use in traditional M&E, due to both its inclusion of process and intermediate outcome indicators as examples and its detailed discussion of traditional M&E.

Inventory of M&E Indicators

Annex 6 lists 164 WEE indicators that are used in one or more of the 15 M&E tools, together with the tool(s) using each measure and one or more references to a source (when provided) with additional information on the indicator.⁷²

Twenty-seven of the 164 indicators listed in Annex 6 (16.4%) are used by more than one of the M&E tools (including 12 indicators used with three or more tools), compared to 25% of the PM indicators listed in Annex 4.

Table 8 and Figure 5 summarize the coverage of the elements and dimensions of the WEE conceptual framework (Figure 1 and Annex 1) by the 164 M&E indicators listed in Annex 6. Comparing Table 8 to Table 6 (which provides similar information for the PM indicators), the indicators in the M&E tools provide much better coverage of the final outcomes (Economic Achievements and Economic Empowerment/Agency), but less coverage to the other elements. The M&E indicators provide similar coverage overall compared to the PM indicators in the sense that there are five dimensions that are not covered by any M&E indicator in Table 8 (compared to two in Table 6). However, the coverage of the individual dimensions within each element is better balanced in Table 8 than in Table 6. Because the indicators are listed by the conceptual framework dimensions, a reader interested in specific WEE dimensions should be able to identify the M&E tools that are relatively strong in those dimensions by referring to Annex 6.

FIGURE 5

Number of M&E Tool Indicators by Conceptual Framework Element

Source: Table 8

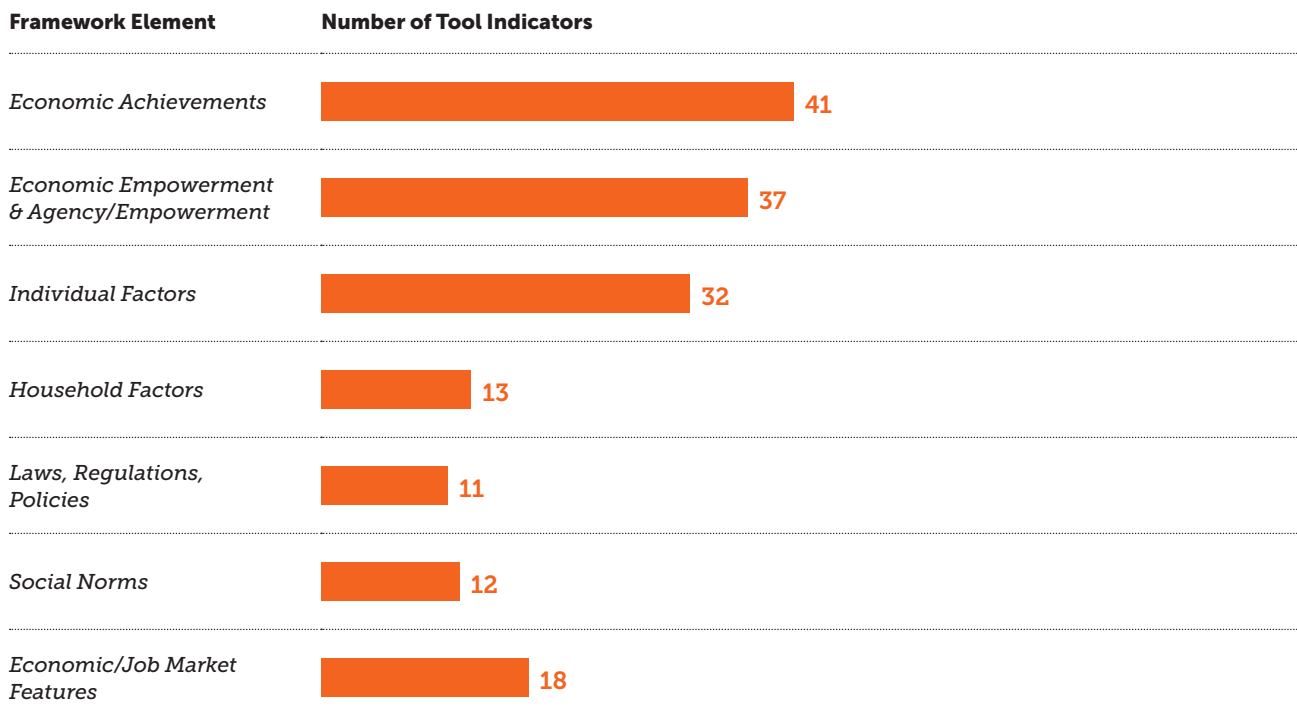


TABLE 8

Number of Indicators in M&E Tools by Conceptual Framework Dimension (164 Total)

Source: Annex 6

Factor or Dimension	Indicators	Factor or Dimension	Indicators
ECONOMIC ACHIEVEMENTS	41	HOUSEHOLD FACTORS (INTRA-HOUSEHOLD ALLOCATION OF WORK AND RESOURCES)	13
Income (all sources)	9	Division of household work and child/elder care	3
Savings (financial)	4	Bargaining power inside the household	7
Household and business assets	10	Ability to make or participate in decisions about household expenditures	3
Amount of leisure time	7		
Vulnerability to shocks	2	CONTEXT FACTORS: LAWS, REGULATIONS, POLICIES (FORMAL INSTITUTIONS)	11
Type and quality of work (e.g., formal-informal, job security, access to benefits)	9	Property rights (i.e., right to purchase, own, sell, transfer and bequeath productive assets)	4
		Absence of gender discrimination in legal codes and regulations (e.g., work, marriage, divorce)	2
ECONOMIC EMPOWERMENT & AGENCY/EMPOWERMENT	37	Protection against violence and sexual harassment	5
Control over household expenditure	2	Equal right to start and operate a business	0
Control over savings and investment	1		
Control over productive assets (including documented ownership, use, purchase, sale, transfer and right to inherit and bequeath)	14	CONTEXT FACTORS: SOCIAL NORMS (INFORMAL INSTITUTIONS)	12
Increased financial independence/autonomy	10	Attitudes toward gender roles (e.g., work away from home, starting a business)	8
Absence of stress/economic well-being ("peace of mind")	3	Women's freedom of mobility	4
Leadership roles	2		
Self-confidence/self-esteem	5	ECONOMIC/JOB MARKET FEATURES	18
		Availability of paid work	3
INDIVIDUAL FACTORS (INDIVIDUAL CAPABILITIES)	32	Ability to work in male-dominated occupations	2
Health	13	Absence of discrimination in wages and benefits	0
Education (including basic literacy and numeracy, digital and financial literacy)	9	General business environment	0
Willingness to take risks, optimism, determination (grit)	2	Women's access to business and financial services (e.g., open a bank account, borrow money)	7
Soft skills (e.g., teamwork)	0	Women's access to markets (e.g., agriculture, business, international trade)	0
Work experience	1	Availability of infrastructure (e.g., transportation, communications, electricity, water & sanitation)	5
Personal access to networks	2	Social capital (e.g., existence of networks, social cohesion, trust, community cooperation)	1
Participation in women's advocacy organizations, cooperatives and labor unions	5		

Concluding Comments & Suggestions

Our Goals

This compendium of 34 WEE-related measurement tools is intended to help the reader both understand how different measurement tools are built and select among the most well-known and widely (cross-culturally) applicable tools for different purposes. Considerable work in recent years to measure gender equality and women's economic empowerment has yielded a variety of measurement tools, dashboards, guides, and indicators, as our search revealed. Hopefully, this compendium captures some of the richness of these efforts.



Effectively Using WEE Measurement Tools

The 20 PM tools we reviewed vary in several important features, especially the way they calculate their country indexes (and subindexes).

While most of the PM tools followed at least some of the core steps recommended to construct a valid and reliable index, only two tools followed most steps and only three tools assessed the robustness of their indexes and country rankings with respect to the many choices made.

Potential users of PM tools should examine the different methods and procedures used to construct country indexes since these choices will affect country rankings. Comparing the country rankings obtained from a given PM tool with those based on key development indicators (e.g., per capita GDP, poverty rates, or the UNDP Human Development Index) as well as with those obtained from other WEE-related indexes allows users to assess the extent to which the country rankings based on the index parallel those obtained from other country-level measures. This comparison should also help to answer the question of how much value the PM tools add individually and collectively to our understanding of the current status of WEE and its evolution over time.

Most likely, the PM indexes in this compendium are correlated with each other, with some more highly correlated than others. A potentially useful research question is to explore whether indexes measuring gender equality are more highly correlated than those measuring other WEE objectives, and whether there are systematic differences in the country rankings of different indexes related to region, income level, or other characteristics.

PM country indexes can help drive change when used as communication tools to inform and influence. These PM indexes could also point to policy and program directions and thus help fill the growing demand from policymakers and program

implementers for WEE measures with immediate practical applications. PM tools vary considerably in the comprehensiveness with which they measure WEE. This is related to the fact that some PM tools were built specifically to measure WEE while others were built to measure a dimension relevant to WEE or measure gender equality more broadly. More comprehensive PM indexes are likely a better fit to be used as communication tools while more specific, less comprehensive PM indexes are more likely to contain more easily translatable practical messages for policy makers and project implementers. Two potentially useful research questions are to assess the usefulness of different PM tools for different purposes and the attributes of PM tools with practical applications.

The 15 M&E tools, while they all share the common purpose of M&E, also vary considerably in the M&E activities they are best suited to support. Seven are most suitable for use in both traditional M&E and impact evaluation, while four are best suited for impact evaluation and two are best suited for traditional M&E.

A well-documented theory of change forms the backbone and strength of M&E tools and differentiates tools from each other. More than half of the M&E tools spell out a theory of change; most of these theories are limited to intermediate and final outcomes and therefore allow a variety of different inputs and outputs.

The 312 indicators from PM tools that populate the compendium's WEE conceptual framework are richer in covering the "resources" side of this framework while the 164 indicators from M&E tools are richer in covering the "agency" and "achievements" sides of the framework. This is partly a function of the different purposes of and construction processes for these tools, but it also underscores the strengths and weaknesses of each set of tools in terms of coverage of the different dimensions of the WEE framework. Additionally, it highlights indicator and data gaps, particularly regarding household factors and agency and empowerment indicators.

The inventory of 476 indicators in Annex 4 and Annex 6 is a potentially useful resource for those tasked with developing WEE-related PM tools and M&E frameworks for project monitoring or impact evaluations.

PM Tools Recommendations

Based on our review of PM tools, we recommend that those seeking to update, develop, and/or use tools going forward do the following:

Tool developers of pre-existing tools should undertake missing methodological steps in the development of individual tools, with priority given to assessing how the many choices made in tool development affect country rankings. Going forward, developers of new tools should undertake the steps outlined above to ensure tools are reliable and underlying data is accessible to users. A useful reference for tool developers is the procedures recommended for the preparation of indexes in the *OECD/JRC Handbook*.⁷³ Tool developers should consider broadening tools' coverage of WEE dimensions by reducing the number of countries for which data are collected (acknowledging the tradeoff between comprehensiveness and cross-country coverage). This would open up the possibility of using survey-based estimates of key WEE-related indicators for which reliable country-level estimates are not currently available, particularly for low and middle-income countries. Measurement efforts underway should strengthen the ability of national surveys to develop WEE-related indicators; in the meantime, some of the needed estimates can be obtained even now from large-scale and high-quality survey programs like the DHS, MICS, and LSMS.

At the same time, these large-scale, high-quality survey programs should be encouraged to broaden the range of WEE-related indicators in their surveys, particularly in the currently under-represented areas of economic achievements, empowerment, agency, and intra-household allocations of work and resources.

Tool developers and users should understand how correlated the different PM indexes are with each other—whether indexes measuring gender equality are more highly correlated with each other than those measuring other WEE objectives, and whether there are systematic differences in the country rankings of different indexes related to region, income level, or other characteristics.

M&E Tools Recommendations

Based on our review of existing WEE M&E tools, we recommend that those seeking to update, develop, and/or use these tools going forward do the following:

Tool developers should include all necessary information referenced above in the six criteria we outlined (i.e. theory of change, evidence on causal links, rationale behind chosen indicators, etc.). This information will help users of M&E tools make more informed choices about the tools and/or particular indicators they select.

Tool developers should prioritize discussing any linkages between WEE outcomes and other development outcomes, such as economic growth, human development, and governance. Information on the effects of WEE interventions on such outcomes would be a necessary input into estimates of the economic returns to investments in WEE (cost-benefit analysis)—the results of which could be a basis for effective advocacy for higher levels of both national and international financial support.

Researchers focused on understanding “what works” to advance WEE should prioritize additional meta-analyses of the effects of interventions on WEE outcomes. This underlying research will help M&E tool developers formulate better-documented theories of change with more relevant lists of indicators.

In addition to their focus on indicators, M&E tools should also address the measurement of WEE intervention costs. Such information is needed to estimate the economic returns to investments in WEE as well as for cost-effectiveness (which interventions yield the biggest bang for the buck) and cost-efficiency analysis (which can be used to fine tune the implementation of interventions within a project or program).

Continuing Challenges

While the PM and the M&E tools offer a rich set of indicators, the uneven coverage of the dimensions of the WEE conceptual framework by the currently available indicators is cause for concern and underlines the urgent need to close several important gender data gaps, particularly in the areas of empowerment, agency, and the intra-household allocation of work and resources. This is a research challenge for both large scale surveys and customized primary data collection efforts.

Finally, there is also an opportunity to form a WEE measurement community of practice among relevant researchers, practitioners, policymakers, advocates, and investors to align on standards of good practice and work on harmonization efforts.⁷⁴ The community of practice could build on this compendium’s initial compilation and analysis of WEE measurement tools and agree to a defined set of quality standards for future tool development, as well as standards focused on data transparency—creating a minimum set of information that should always be reported to tool users.

Notes

- 1 We are grateful to Albert Motivans, Equal Measures 2030, for contributing this suggestion.
- 2 For purposes of this compendium, surveys such as the Demographic and Health Surveys (DHS) or the Living Standard Measurement Surveys (LSMS) are not treated as tools but rather as an important source of the data used by WEE tools.
- 3 McKelway, 2019.
- 4 Chen, M. et al. 2005.
- 5 Woodruff, C. 2015.
- 6 Martinez-Restrepo, S. and Ramos-Jaimes, L. 2017.
- 7 Sen, A. 1999.
- 8 Golla, A. et al. 2011.
- 9 Buvinic, M. 2017.
- 10 Ibid.
- 11 Malhotra, A. and S. Schuler. 2005.
- 12 Mason, K. O. 2005.
- 13 Buvinic, M. 2017.
- 14 Malhotra, A. and S. Schuler. 2005.
- 15 Golla, A. et al. 2011.
- 16 Taylor, G. and Perezniето, P. 2014.
- 17 Buvinic, M. 2017.
- 18 Malhotra, A. and S. Schuler. 2005.
- 19 Mason, K.O. 2005.
- 20 Buvinic, M. 2017.
- 21 Kabeer, N. 1999.
- 22 Malhotra, A. and S. Schuler. 2005.
- 23 Golla, A. et al. 2011.
- 24 Fox, L. and Caroline Romero. 2016.
- 25 Buvinic, M. and R. Furst-Nichols. 2015.
- 26 Quisumbing, A.; D. Rubin; K. Sproule. 2016.
- 27 Buvinic, M. 2017.
- 28 Glennerster, R.; C. Walsh; L. Diaz-Martin. 2018.
- 29 Rowlands, J. 1997.
- 30 Taylor, G. and P. Perezniето. 2014.
- 31 Veneklasen, Lisa and V. Miller. 2002.
- 32 Ibrahim, S., and S. Alkire. 2007.
- 33 Kabeer, N. 1999.
- 34 Narayan, D., World Bank, 2002.
- 35 Alsop, R.; M.F. Bertelsen; J. Holland. 2006.

NOTES

- 36** Mason, K.O. 2005.
- 37** Laszlo et al., 2017.
- 38** Buvinic, M. 2017.
- 39** Malhotra, A. and S. Schuler. 2005.
- 40** Mason, K.O. 2005.
- 41** Buvinic, M. 2017.
- 42** Glennerster, R.; C. Walsh; L. Diaz-Martin. 2018.
- 43** Martinez-Restrepo, S. and L. Ramos-Jaimes. 2017.
- 44** Glennerster, R.; C. Walsh; L. Diaz-Martin. 2018.
- 45** World Bank. 2020.
- 46** Sen, A. 1999.
- 47** Kabeer, N. 1999.
- 48** Calder, R.; S. Rickard; K. Kalsi. 2020.
- 49** EMERGE. 2020.
- 50** In addition to the tools listed in Table 4, there are several PM “dashboards” (compilations of country-level indicators without indexes). The indicators in three PM dashboards are included in the compilation of PM indicators listed in Annex 3.
- 51** The last recommended step, presentation and dissemination of results, was not reviewed here because it addresses communication rather than technical requirements.
- 52** Papadimitriou, E. and Giulio Caperna. 2019.
- 53** The first (2019) version of the SDG Gender Index incorporated only some of the recommendations made in this audit.
- 54** The most common normalization methods are standardization (subtracting the variable’s mean from each value and dividing by the variable’s standard deviation), producing an indicator with a mean of zero and a standard deviation of one, and min-max normalization (subtracting the variable’s minimum observed value from each value and dividing by the difference between the maximum and minimum observed values), producing an indicator that varies between zero and one.
- 55** The methods used to impute missing values are not clearly explained in all tools, although most appear to be based on country or regional averages.
- 56** Although min-max normalization and standardization are the most common normalization methods used with quantitative variables, female-to-male ratios are also truncated at a value of one (signifying equality) in four tools (SIGI, Global Gender Gap Index, WEI, Africa Gender Equality Index). Decisions on the treatment of missing values and normalization have not yet been decided for the IDM, for which development is ongoing.
- 57** Hernando, R. C. and C. Kuriyama. 2014–present.
- 58** Adapted from N. Michela, M. Saisana, A. Saltelli, S. Tarantola, A. Hoffmann, E. Giovannini. 2008.
- 59** There are a couple of exceptions. One is Oxfam’s Women’s Empowerment Index (WEI), which constructs an index measuring women’s empowerment for use in the evaluation of projects. This index is not suitable for population monitoring because the composition of the index varies with each application, preventing direct comparison across contexts (Lombardini and others 2017). The second exception is the pro-WEAI index, which is designed for the M&E of agricultural projects and programs but also develops an index measuring agency (Malapit and others 2015).
- 60** In several cases (e.g., J-PAL, EMERGE), the tools provide this information. In other cases, this distinction is based on the complexity of their indicators (i.e., those requiring a complex and costlier survey instrument are more suitable for an impact evaluation) and/or the type of indicators they include (i.e., those limited to process and intermediate outcomes are more suitable for traditional M&E).
- 61** Knowles, J. 2015.
- 62** Vaessen, J., et al. 2014.
- 63** Brody, C., et al. 2016.
- 64** Knowles, J. 2018.
- 65** Langer, L., et al. 2018.
- 66** Lombardini, S. and K. McCollum. 2018.
- 67** EMERGE, 2017.
- 68** Malapit, H., et al. 2019.
- 69** Price, P.; R. Jhangiani; A. Chiang. 2015.
- 70** Buvinic, M. and R. Furst-Nichols. 2015.
- 71** Glennerster, R.; C. Walsh; L. Diaz-Martin. 2018.
- 72** The indicators listed in Annex 6 were selected for inclusion either because they were included in multiple M&E tools (as indicated in column 3 of Annex 6 and therefore listed only once) or because they were the only indicator included in any of the tools representing a given dimension in the conceptual framework (Annex 1).
- 73** Nardo et al. 2008.
- 74** We are grateful to Albert Motivans, Equal Measures 2020, for contributing this suggestion.

Annex 1

Elements and Dimensions of the WEE Conceptual Framework

I. ACHIEVEMENTS (FINAL OUTCOMES)

Economic achievements

- Income (all sources)
- Savings (financial)
- Household and business assets
- Amount of leisure time
- Vulnerability to shocks
- Type and quality of work (e.g., formal-informal, job security, and access to benefits)

Economic empowerment

- Control over household expenditure
- Control over savings and investment
- Control over productive assets (including documented ownership, use, purchase, sale, transfer, and right to inherit and bequeath)
- Increased financial independence/autonomy
- Absence of stress/economic well-being ("peace of mind")
- Leadership roles
- Self-confidence/self-esteem

II. PROCESS (INTERMEDIATE OUTCOMES)

Agency/Empowerment/Power to set goals and make strategic choices

- Control over household expenditure
- Control over savings and investment
- Control over productive assets (including documented ownership, use, purchase, sale, transfer, and right to inherit and bequeath)
- Increased financial independence/autonomy
- Absence of stress/economic well-being ("peace of mind")
- Leadership roles
- Self-confidence/self-esteem

III. RESOURCES (INDEPENDENT VARIABLES, DETERMINANTS)

Individual factors (Individual capabilities)

- Health
- Education (including basic literacy and numeracy, digital and financial literacy)
- Willingness to take risks, optimism, determination (grit)
- Soft skills (e.g., teamwork)
- Work experience
- Personal access to networks
- Participation in women's advocacy organizations, cooperatives, and labor unions

Economic opportunities for women

(picks up the dimensions of Context and Household factors)

Household factors

(Intra-household allocation of work and resources)

- Division of household work and child/elder care
- Bargaining power inside the household
- Ability to make or participate in decisions about household expenditures

Context factors:

Laws, regulations, policies (formal institutions)

- Property rights (i.e., right to purchase, own, sell, transfer, and bequeath productive assets)
- Absence of gender discrimination in legal codes and regulations (e.g., work, marriage, and divorce)
- Protection against violence and sexual harassment
- Equal right to start and operate a business
- Social norms (informal institutions)
- Attitudes toward gender roles (e.g., work away from home or start a business)
- Women's freedom of mobility

Context factors:

Economic/job market features

- Availability of paid work
- Ability to work in male-dominated occupations
- Absence of discrimination in wages and benefits
- General business environment
- Women's access to business and financial services (e.g., open a bank account or borrow money)
- Women's access to markets (e.g., agriculture, business, and international trade)
- Availability of infrastructure (e.g., transportation, communications, electricity, and water and sanitation)
- Social capital (e.g., existence of networks, social cohesion, trust, and community cooperation)

Annex 2

Search Terms

Search terms:

(Women OR gender OR female)

and

("Economic empowerment" OR "Economic achievements" OR "Achievements" OR "Economic outcomes" OR "Economic opportunities" OR "Empowerment" OR "Economic agency" OR "Agency" OR "Economic well-being" OR "Self-esteem" OR "Self-confidence" OR "Financial independence" OR "Control over savings" OR "Control over resources" OR "Control over investments" OR "Control over earnings" OR "Control over income" OR "Control over spending" OR "Control over expenditure" OR "Control over assets" OR "Control over productive assets" OR "Entrepreneurship" OR "Agriculture" OR "Agricultural outcomes" OR "Economic equality" OR "Assets" OR "Income" OR "Savings" OR "Saving" OR "Leisure time" OR "Economic shock" OR "Economic vulnerability" OR "Vulnerability to shocks" OR "Employment" OR "Workforce participation" OR "Labor market participation" OR "Job security" OR "Access to benefits" OR "Employment benefits" OR "Employee benefits" OR "Quality of work" OR "Formal employment" OR "Formal work" OR "Informal employment" OR "Informal work" OR "equality" OR "Business" OR "Business outcomes" OR "SME" OR "Enterprise" OR "Small enterprise" OR "Small and medium enterprise" OR "Leadership" OR "Poverty" OR "Discrimination" OR "Inequality" OR "Economic participation" OR "Private sector" OR "Work experience" OR "Soft skills" OR "Financial literacy" OR "Digital literacy" OR "Numeracy" OR "Literacy" OR "Health" OR "Education" OR "Risk tolerance" OR "Risk aversion" OR "Risk-taking" OR "Social networks" OR "Access to networks" OR "Women's group" OR "Advocacy group" OR "Women's cooperative" OR "Labor unions" OR "Violence" OR "Household division of labor" OR "Household work" OR "Care work" OR "Household allocation" OR "Bargaining power" OR "Decision-making power" OR "Productive assets" OR "Property rights" OR "Land rights" OR "Land titling" OR "Legal protection" OR "Gender roles" OR "Attitudes about gender roles" OR "Attitudes toward gender roles" OR "Attitudes toward women" OR "Freedom of mobility" OR "Paid work" OR "Female-dominated occupations" OR "Male-dominated occupations" OR "Business environment" OR "Access to services" OR "Access to financial services" OR "Financial services" OR "Infrastructure" OR "Access to markets" OR "Social capital" OR "Social networks" OR "Social cohesion")

and

("Tool" OR "Measure" OR "Measurement" OR "Measuring" OR "Framework" OR "Survey" OR "Dashboard" OR "Index" OR "Indicator" OR "Indicators" OR "Methodology" OR "M&E" OR "Monitoring and evaluation" OR "Monitoring & evaluation" OR "Impact evaluation" OR "Monitoring" OR "Evaluation")

Annex 3

Procedures Used to Calculate the Indexes in PM Tools

EU Gender Equality Index

Selection of dimensions (and sub-dimensions)

The dimensions (“domains”) and sub-dimensions of were selected initially “on the basis of EU gender equality policy.” However, a few changes were made to the sub-dimensions on the basis of the multivariate analysis of the indicators.

Selection of variables/indicators

The indicators were selected initially on the basis of a review of the literature and all existing data sources, using existing EU data quality standards as criteria. The final list of indicators was based on the multivariate analysis.

Analysis of indicators

Multivariate analysis of all the initially selected indicators was done using correlation analysis and principal components analysis (PCA). However, the PCA was done only at the dimension level due to the limited number of countries (N=27)

Data sources

The data sources are mainly from EU sources (e.g., Eurostat) and from the UN and OECD.

Adjustments to raw data

A few missing values in the base year (2020) data were imputed. Variables were reoriented so that positive values indicate increased inequality. Variables were converted to a common metric reflecting both the magnitude of any gender gap and the country’s overall level of achievement.

Sub-indexes

12 sub-domain sub-indexes are equally weighted arithmetic means of the indicators. Six domain sub-indexes were calculated as equally weighted geometric means of the sub-domain indexes.

Overall country index

The overall country index is the weighted geometric mean of the six domain sub-indexes, using weights obtained from an Analytic Hierarchy Process (Nardo and others 2008) with a network of EIGE experts.

Sensitivity analysis

The sensitivity of the country rankings to alternative assumptions (imputation of missing values, weighting and aggregation formulas) was systematically evaluated.

External relevance

No results for external relevance are reported.

Continued on next page →

Equal Measures 2030 SDG Gender Index

Selection of dimensions (and sub-dimensions)

The dimensions represent 14 of the 17 SDG goals selected as most significant for women.

Selection of variables/indicators

3-5 indicators were selected to capture the key gender dimensions of each of the targeted 14 SDG goals during a participatory process extending over several months.

Analysis of indicators

Principal components analysis (PCA) found ten components explain 76% of the total variation in the indicators. Correlation analysis also found that most of the indicators are more closely correlated with the indicators in their own dimension than with those in other dimensions and that all but one are positively correlated with the overall index.

Data sources

Secondary data, mostly from international organizations (e.g., World Bank, ILO, ITU, IPU, OECD, UN, WEF, WHO).

Adjustments to raw data

Variables are normalized using the Min-Max formula and using SDG targets when reported values exceed the maximum observed values. Some imputation is done based on data for similar countries or regional averages. The highest 2.5% of values are winsorized for two indicators. Indicators are calculated by rescaling the adjusted variables to a range of 0 to 100.

Sub-indexes

14 sub-indexes are calculated for each dimension (SDG Goal) as the equally weighted arithmetic means of their indicators without any explanation for these choices or their implications. (The resulting sub-indexes are not used in calculating the overall index.)

Overall country index

The overall index is the equally weighted arithmetic mean of the 51 indicators is the overall index value (the dimension sub-indexes are not used). This was done because data coverage was considered too low for many of the sub-indexes. One effect of aggregating the indicators directly is to give slightly more weight to dimensions (SDG goals) populated by more indicators.

Sensitivity analysis

Sensitivity analysis was done to assess the effect of several assumptions on the country rankings (exclusion of indicators, random variation of weights, aggregation based on sub-indexes instead of indicators, use of alternative aggregation formula).

External relevance

Analysis shows that the index is highly correlated with per capita GDP (PPP).

Continued on next page →

GEDI Female Entrepreneur Index

Selection of dimensions (and sub-dimensions)

The three dimensions are the same as those used in the Global Entrepreneur Index (GEI). 14 of the 15 pillars are the same as the 14 pillars in the GEI. The 15th pillar in the FEI is "gender gaps".

Selection of variables/indicators

There is no information on how the 15 individual and 15 institutional variables were selected. However, most of the individual variables are the same as those in the GEI, except that they are limited to female respondents.

Analysis of indicators

No analysis of the indicators is reported.

Data sources

The data sources are clearly indicated and are all of good quality (including the Global Entrepreneurship Monitor, which is the source for 12 of the 30 indicators).

Adjustments to raw data

The highest 5% of values are winsorized. Indicators are calculated as the product of the individual and institutional variables, which are then normalized by dividing by the maximum value and transformed so that their means are equal. There is no clear explanation of the procedures used to impute missing values.

Sub-indexes

The subindex values for each dimension are calculated as the arithmetic means of Penalty for Bottleneck (PFB)-adjusted indicator values multiplied by 100. The PFB formula is very complex and its choice is not clearly explained.

Overall country index

The overall country index is the equally weighted arithmetic mean of the three sub-indexes, without any explanation for these choices or their implications.

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

No results for external relevance are reported.

Individual Deprivation Measure (IDM)

Selection of dimensions (and sub-dimensions)

The 15 dimensions and sub-dimensions (themes) were selected on the basis of a participatory process.

Selection of variables/indicators

The variables used to calculate the indicators were selected through the same participatory process, supplemented by the findings of surveys of the literature and reviews of existing measures.

Analysis of indicators

No analysis of the indicators is reported.

Data sources

The data source is a specially designed individual-level household survey.

Adjustments to raw data

Normalization is expected, but the method is undecided. The treatment of missing values is also undecided (the IDM is still under development). The adjusted variables are assigned ordinal values for three or more categories, in some cases on the basis of responses to multiple survey questions using cutoff values whose choices are not explained.

Sub-indexes

Dimension sub-indexes are equally weighted arithmetic means of the indicators, without any explanation for these choices or their implications. At each stage, the values are rescaled to range from 0 to 4.

Overall country index

The IDM currently calculates the overall IDM as the equally weighted arithmetic mean of the dimensions (but with alternatives, such as a geometric mean still under consideration).

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

No results for external relevance are reported.

Continued on next page →

IFPRI Women's Empowerment in Agriculture Index (WEAI)

Selection of dimensions (and sub-dimensions)

The five dimensions were identified by USAID, reflecting the priorities in its agricultural programs.

Selection of variables/indicators

Ten variables (objective and subjective) were identified to measure the five dimensions, based on the theoretical and empirical literature.

Analysis of indicators

Responses to overlapping questions were checked for consistency. Cronbach's alpha was also calculated for overlapping responses and found to be generally greater than 0.85. Tetrachoric correlation coefficients were calculated for the 10 sub-indexes.

Data sources

The data source is a specially designed household survey.

Adjustments to raw data

No adjustments to the raw data are reported. Binary (0-1) indicators of deprivation (dis-empowerment) are defined on the basis of responses to multiple survey questions (only the two "Time" indicators are based on only one survey question). Some of these composite indicators are quite complex, with no explanation of how the cutoff values were selected.

Sub-indexes

There are two sub-indexes. The first measuring the 5 dimensions of empowerment (5DE) is the equally weighted arithmetic mean of the ten indicators, without any explanation for these choices or their implications. The second subindex, the Gender Parity Index (GPI), measures the percentages of women who are at least as empowered as their male counterparts in their households in terms of their 5DE values.

Overall country index

The overall WEAI is the weighted arithmetic mean of the 5DE and GPI values, with weights equal to 0.9 (5DE) and 0.1 (GPI), without any explanation for these choices or their implications. The 5DE score is censored for women whose scores exceed an inadequacy threshold, which was set a level that would leave "a reasonable scope for improvement." A woman (or man) who scores a weighted average of 80% on the five dimensions is considered empowered.

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

Correlation of the composite index with external measures of empowerment is reported.

Continued on next page →

IFPRI Project-level Women's Empowerment in Agriculture Index (pro-WEAI)

Selection of dimensions (and sub-dimensions)

The three dimensions, based on Rowlands (1997), are intrinsic agency (power within), instrumental agency (power to) and collective agency (power with). Coercive agency (power over) is not included due to consistent negative perceptions expressed during the formative research.

Selection of variables/indicators

The selection of variables was based partly on the WEAI variables (i.e., 7 of the 12 pro-WEAI variables), but also reflecting the views of the projects participating in the pro-WEAI's development (i.e., the 5 remaining variables).

Analysis of indicators

Correlation analysis of the 12 indicators. Item response theory (IRT) analysis of the definitions of the 12 indicators.

Data sources

The data source is a specially designed household survey.

Adjustments to raw data

No adjustments to the raw data are reported. Binary indicators (0-1) of deprivation (dis-empowerment) are derived from the survey responses (most often to multiple variables) with no explanation of how the cutoff values were selected.

Sub-indexes

There are two sub-indexes. The first (3DE) is an equally weighted arithmetic mean of the 12 indicators, without any explanation for these choices or their implications. The second subindex, the Gender Parity Index (GPI), measures the percentages of women who are at least as empowered as their male household counterparts in terms of their 3DE values.

Overall country index

The overall index is the weighted arithmetic mean of the 3DE and GPI values, with weights equal to 0.9 (3DE) and 0.1 (GPI) and with no explanation for these choices or their implications. Censored values of the pro-WEAI (similar to the WEAI) are also calculated. An individual is defined as empowered if she/he is not disempowered in at least 75% of the indicators.

Sensitivity analysis

Sensitivity analysis (cutoff values used in defining indicators and the weights).

External relevance

No results for external relevance are reported.

Continued on next page →

OECD Social Institutions and Gender Index (SIGI)

Selection of dimensions (and sub-dimensions)

No information is provided on the criteria used to select SIGI's four dimensions, except that they are considered to span "major socioeconomic areas that affect women's lives" (OECD 2020). The SIGI conceptual framework has also evolved considerably over time (cf OECD 2014).

Selection of variables/indicators

The 27 variables in the SIGI were selected using the following criteria: (1) conceptual relevance, (2) underlying factor of gender inequality, (3) data quality, reliability and coverage, (4) ability to measure a distinct discriminatory institution and adding new information not provided by other variables, and (5) high correlation with other variables in the same dimension without being redundant.

Analysis of indicators

Correlation analysis of the sub-indexes, multiple correspondence analysis (MCA), polychoric correlation analysis (in 2014 only).

Data sources

Secondary data, mostly from established international sources or from the SIGI country profiles.

Adjustments to raw data

Quantitative data are truncated at the level signifying equality and re-scaled to values from zero to one. Qualitative data are recoded to five categorical values (0.0, 0.25, 0.5, 0.75 and 1.0), with zero indicating no discrimination and without any clear explanation for the choice of cutoff values.

Sub-indexes

Dimension sub-indexes are calculated using equal weights in a nonlinear formula ($Y = \ln(w_1 \exp(X_1) + w_2 \exp(X_2) + \dots + w_n \exp(X_n))$) without any explanation for these choices or their implications.

Overall country index

The same equally weighted exponential formula is used to aggregate the four dimension sub-index values to the overall index, without any explanation for these choices or their implications. The aggregation formula has changed over time (cf OECD 2014). In 2014, it was an equally weighted quadratic mean of the five dimension scores (OECD 2014).

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

Correlation with other gender inequality composite indexes (in 2014 only).

Continued on next page →

USAID Women's Economic Empowerment and Equality Dashboard (WE3)

Selection of dimensions (and sub-dimensions)

The dimensions were "inspired by the APEC dashboard." Each dimension has three or four sub-dimensions (16 in total), each of which includes highly correlated indicators capturing a common unobserved factor.

Selection of variables/indicators

"The indicators were carefully selected by USAID gender and technical experts" to "benefit USAID's programming and analytical needs...on gender equality, economic growth, health and democracy." Limited country and year coverage were significant reasons for excluding some indicators.

Analysis of indicators

No analysis of the indicators is reported, including the referenced high correlation of indicators within dimensions and sub-dimensions.

Data sources

Secondary data, mostly from international organizations (e.g., World Bank, ILO, ITU, IPU, OECD, UN, WEF, WHO).

Adjustments to raw data

Missing values are imputed, i.e., geometric means based on past data or region/income group averages. The raw data are re-scaled and normalized to values between 0 and 5 so that the indicators are directly comparable.

Sub-indexes

Each of the five sub-dimension sub-indexes is an equally weighted arithmetic mean of the indicators without any explanation for this choice or its implications.

Overall country index

No dimension-level sub-indexes or overall country index are calculated from the sub-dimension sub-indexes.

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

No results for external relevance are reported.

WEF Global Gender Gap Index

Selection of dimensions (and sub-dimensions)

No information provided on the criteria used to select the four dimensions (pillars).

Selection of variables/indicators

No information is provided on the criteria used to select the 14 indicators.

Analysis of indicators

No analysis of the indicators is reported.

Data sources

Secondary data, mostly from international organizations (e.g., ILO, ITU, IPU, UN, WEF, WHO).

Adjustments to raw data

No imputation of missing data is reported. All variables are converted to female/male ratios that are truncated at levels signifying equality. The adjusted ratios are used directly as indicators of gender equality that do not reward countries for having exceeded parity.

Sub-indexes

Sub-indexes for the four dimensions are weighted arithmetic means of the indicators, using weights that are inversely related to their standard deviations. This weighting scheme ensures that variations in the indicators have the same relative effects on the sub-index.

Overall country index

The overall index is the equally weighted arithmetic mean of the four dimension sub-indexes without any explanation for these choices or their implications.

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

Analysis of how GGG index and correlates with development indicators (e.g., GDP per capita, Human Development Index), but not with other WEE-related indexes.

Continued on next page →

World Bank Women, Business and the Law (WBL)

Selection of dimensions (and sub-dimensions)	Selection of variables/indicators	Analysis of indicators
The eight dimensions ("indicators") were identified based on statistically significant associations with WEE-related outcomes.	"The indicators were selected through research and consultation with experts." 35 variables are 0-1 (yes/no) scores.	No analysis of indicators is reported.
Data sources	Adjustments to raw data	Sub-indexes
The data are collected by the WBL team.	The variables are scored from 0 to 100, and these scores are used directly as indicators.	Sub-indexes are equally weighted arithmetic means of the indicators in each dimension, without any explanation for these choices.
Overall country index	Sensitivity analysis	External relevance
The overall index is the equally weighted arithmetic mean of the eight rescaled sub-index scores, without any explanation for these choices.	No sensitivity analysis is reported.	WBL index is strongly correlated with the female-to-male ratio of labor force participation rates and estimated earning income, holding other relevant factors constant.

The Hunger Project Women's Empowerment Index (WEI)

Selection of dimensions (and sub-dimensions)	Selection of variables/indicators	Analysis of indicators
No information provided on the criteria used to select the five dimensions ("domains").	No information provided on the criteria used to select the variables, although it is stated that "the theory and model are primarily based on the innovative WEAI."	No analysis of the indicators is reported. Detailed definitions of the indicators are not provided.
Data sources	Adjustments to raw data	Sub-indexes
The data sources are specially designed household surveys "conducted on mobile devices."	Two types of indicators are calculated from the nine variables: Women's Achievement Ratios (WAR) and Gender Parity Ratios (GPR). The WARs are between zero and one and are capped at one if the average value exceeds the target value. The GPRs are also between zero and one and are capped at one when the women's value is equal to the men's value.	Although no sub-indexes are calculated, the formula for the over-all index effectively weights the indicators across the five dimensions.
Overall country index	Sensitivity analysis	External relevance
The overall index is equal to the weighted sum of the WAR and GPR indicators, using weights for the WAR and GPR indicators of 0.6 and 0.4 respectively, without any explanation for these choices. 80 out of 100 signifies adequacy in a given community.	No sensitivity analysis is reported.	Values of the index are correlated with several other indicators, but only at the community level (so statistical significance cannot be assessed).

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Georgetown University Women Peace and Security Index (WPS Index)

<p>Selection of dimensions (and sub-dimensions)</p> <p>A narrative is provided to justify the selection of the three dimensions (inclusion, justice and security), but no analysis is reported.</p>	<p>Selection of variables/indicators</p> <p>Detailed information is provided on the criteria used to select indicators, including the rationale for including each indicator. However, no analysis is reported.</p>	<p>Analysis of indicators</p> <p>Limited analysis of indicators is reported (i.e., correlations between the three indicators in the Security dimension).</p>
<p>Data sources</p> <p>The main data sources are standard international data sources (e.g., World Bank, ILO, UNESCO, IPU, Gallup World Poll).</p>	<p>Adjustments to raw data</p> <p>Missing data are imputed using regional averages or values of neighboring countries with similar characteristics. Variables are min-max normalized to values between zero and one.</p>	<p>Sub-indexes</p> <p>Sub-indexes are equally weighted arithmetic means of the indicators, with the explanation that this implies that the relative weight of each dimension is inversely proportional to the number of indicators in that dimension.</p>
<p>Overall country index</p> <p>The overall index is calculated as the equally weighted geometric mean of the sub-indexes. The justification is that all three dimensions are important, noting that this formula “penalizes unequal achievements across dimensions.”</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>Several correlations of the index with other outcomes are reported, including political violence targeting women, female to male ratio of unpaid work, percent of youth in school or work, adolescent fertility). No correlations with other WEE-related indexes are reported.</p>

Economist Intelligence Unit Women’s Economic Opportunity Index (WEOI)

<p>Selection of dimensions (and sub-dimensions)</p> <p>No information provided on the criteria used to select the five dimensions (“categories”).</p>	<p>Selection of variables/indicators</p> <p>The criteria used initially to select the indicators are not listed. However, the indicator list was reviewed and revised at an experts meeting.</p>	<p>Analysis of indicators</p> <p>The indicators were analyzed using principal components analysis (PCA). The results available are limited to the indicator weights, which are fairly equally distributed across the five dimensions.</p>
<p>Data sources</p> <p>The main data sources are mainly international organizations (e.g., the ILO, World Bank Group, IMF, OECD, UNESCO, UNDP, ITU)</p>	<p>Adjustments to raw data</p> <p>Estimates by the EIU were used to replace missing values. Variables were min-max normalized to obtain indicators with values of 0-100.</p>	<p>Sub-indexes</p> <p>Sub-indexes are equally weighted arithmetic means of the indicators in each dimension, without any explanation for these choices or their implications.</p>
<p>Overall country index</p> <p>The overall index is calculated as the equally weighted arithmetic mean of the five sub-indexes without any explanation for these choices or their implications.</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>Index values are correlated with other development indicators (i.e., female/male ratio of paid employment, the share of women in vulnerable employment, per capita GDP PPP, and the EIU’s Democracy Index) and with one other WEE-related index (the GDI).</p>

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AfDB Africa Gender Equality Index

Selection of dimensions (and sub-dimensions)	Selection of variables/indicators	Analysis of indicators
No information is provided on the criteria used to identify the three dimensions (categories) and six sub-categories.	The criteria used to select the indicators is not discussed.	No analysis of the indicators is reported.
Data sources	Adjustments to raw data	Sub-indexes
The data sources are mainly the World Bank's Women, Business and the Law data base and the SIGI Country Profiles.	Variables are converted to female/male ratios. The ratios are truncated at the equality benchmark of one, and the truncated ratios are min-max normalized.	Six sub-category and scores and three sub-indexes (dimension) are the equally weighted arithmetic means of their indicators, without any explanation for these choices or their implications.
Overall country index	Sensitivity analysis	External relevance
The overall country index is the equally weighted arithmetic mean of the sub-indexes, without any explanation for these choices or their implications.	No sensitivity analysis is reported.	No results for external relevance are reported.

UNDP Gender Development Index (GDI)

Selection of dimensions (and sub-dimensions)	Selection of variables/indicators	Analysis of indicators
The dimensions are the same as those in UNDP's Human Development Index (HDI).	The variables are the same as those in the HDI, except for the income measures, which are UNDP gender-specific estimates of earned income "in all sectors."	No analysis of the indicators is reported.
Data sources	Adjustments to raw data	Sub-indexes
The data are from standard international sources (UNDESA, UNESCO, UNICEF, OECD, ILO, World Bank, IMF)	The variables are transformed into values 0-1 using the same min-max normalization as used in the HDI (but with average life expectancy at birth adjusted to reflect a five-year differential favoring females)	Gender-specific sub-indexes are calculated. The education sub-indexes are the equally weighted arithmetic means of the two education indicators. The other sub-indexes are equal to the indicators.
Overall country index	Sensitivity analysis	External relevance
The overall country index is the ratio of the geometric mean of the sub-indexes for females to that of males.	No sensitivity analysis is reported.	No results for external relevance are reported.

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CFR Women's Workplace Equality Index

<p>Selection of dimensions (and sub-dimensions)</p> <p>The seven dimensions (indicators) were selected by the WB's WBL program.</p>	<p>Selection of variables/indicators</p> <p>50 variables from the 2018 WBL data base were selected for scoring by the WBL program. The CFR added 6 variables to four of the dimensions.</p>	<p>Analysis of indicators</p> <p>No analysis of the indicators is reported.</p>
<p>Data sources</p> <p>The data are from the WBL 2018 database.</p>	<p>Adjustments to raw data</p> <p>Indicator scores (0-100) were assigned by the WBL program for 50 variables and by the CFR for 6 additional variables.</p>	<p>Sub-indexes</p> <p>Dimension sub-indexes are calculated as equally weighted arithmetic means of the indicators without any explanation for these choices or their implications.</p>
<p>Overall country index</p> <p>The overall country index is the equally weighted arithmetic mean of the sub-indexes without any explanation for these choices or their implications.</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>No results for external relevance are reported.</p>

ISS Gender Equity Index

<p>Selection of dimensions (and sub-dimensions)</p> <p>No dimensions are identified in this tool, presumably reflecting its use of the matching percentiles methodology to aggregate the indicators to the overall index.</p>	<p>Selection of variables/indicators</p> <p>The criteria used to select the indicators is not discussed.</p>	<p>Analysis of indicators</p> <p>The indicators are analyzed using hierarchical cluster analysis and both exploratory and confirmatory factor analysis.</p>
<p>Data sources</p> <p>The data are mainly from standard international sources, including Gallup, the World Bank, and the ILO.</p>	<p>Adjustments to raw data</p> <p>The variables were reoriented, as necessary, so that positive values indicate more desirable outcomes and all variables were also standardized.</p>	<p>Sub-indexes</p> <p>No sub-indexes are calculated (there are no dimensions).</p>
<p>Overall country index</p> <p>The overall country index is calculated using the matching percentiles methodology, an iterative process used with Transparency International's Corruption Perceptions Index, which was selected for its ability to incorporate data with missing values.</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>The index is positively correlated with GDP per capita (PPP).</p>

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International Center for Equity in Health Survey-based Women's Empowerment Index (SWPER)

<p>Selection of dimensions (and sub-dimensions)</p> <p>Three dimensions were identified using factor analysis.</p>	<p>Selection of variables/indicators</p> <p>The variables are limited to 14 empowerment-related variables available in the DHS.</p>	<p>Analysis of indicators</p> <p>Factors analysis was used both with the individual country data sets and with a pooled data set.</p>
<p>Data sources</p> <p>DHS surveys in 34 African countries.</p>	<p>Adjustments to raw data</p> <p>The data were reoriented so that higher values indicate greater empowerment. Data were imputed for women who had no children.</p>	<p>Sub-indexes</p> <p>Three sub-indexes are calculated as the scores of the first three principal components.</p>
<p>Overall country index</p> <p>No overall index is calculated.</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>The three sub-indexes are correlated with UNDP's Gender Development Index (GDI).</p>

Economics Center of Sorbonne Multidimensional Inequalities Index (MGII)

<p>Selection of dimensions (and sub-dimensions)</p> <p>Eight dimensions were identified from the literature</p>	<p>Selection of variables/indicators</p> <p>The variables included in each dimension were significantly related to each other, based on Kendall Tau-b tests.</p>	<p>Analysis of indicators</p> <p>Multiple correspondence analysis was used to obtain the weights used to aggregate the sub-indexes to the overall index.</p>
<p>Data sources</p> <p>The data are mainly from standard international sources (e.g., UN, World Bank, OECD, CIRI Human Rights Data).</p>	<p>Adjustments to raw data</p> <p>The variables were standardized.</p>	<p>Sub-indexes</p> <p>The eight dimension-level sub-indexes are calculated as the re-scaled (0-1) sums of the standardized variables in each dimension</p>
<p>Overall country index</p> <p>The overall index is a weighted nonlinear (quadratic) function of the sub-indexes, with the weights reflecting the relative contribution of each sub-index to the variance of the overall index.</p>	<p>Sensitivity analysis</p> <p>No sensitivity analysis is reported.</p>	<p>External relevance</p> <p>The MGII is correlated with several other gender inequality indexes (i.e., the Gender Development Index, the Gender Empowerment Index, the Standardized Index of Gender Inequality and the Gender Inequality Index).</p>

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UN ECA African Gender and Development Index (AGDI)

Selection of dimensions (and sub-dimensions)

No information is provided on the criteria used to identify the seven dimensions (components) and six sub-components.

Selection of variables/indicators

No information is provided on the criteria or procedures used to select the variables.

Analysis of indicators

No analysis of the indicators is reported.

Data sources

The data are from a UNECA country data base that includes census reports, and estimates obtained from labor force, LSMS, DHS and MICS and surveys.

Adjustments to raw data

The variables are reoriented as needed so that higher values indicate positive results. Indicators are then calculated as female-to-male ratios of the variables. No imputation of missing data is reported. (see column 6)

Sub-indexes

Sub-indexes are the equally weighted arithmetic means of the included indicators (missing values are ignored in calculating the means).

Overall country index

The overall country index is the equally weighted arithmetic mean of the sub-indexes.

Sensitivity analysis

No sensitivity analysis is reported.

External relevance

No results for external relevance are reported.

Annex 4

List of PM Indicators by Conceptual Framework Element & Dimension

ABBREVIATION KEY

AGDI	UN Economic Commission for Africa African Gender and Development Index	OECD	Gender, Institutions and Development database, OECD
AGEI	AfDB Africa Gender Equality Index	PAHO.....	Pan American Health Organization (2014) [plus UNICEF global databases (2017), World Health Organization (n.d.), World Values Survey (2005-2016)]
APEC.....	Asia Pacific Economic Cooperation	pro-WEAI.....	IFPRI Project Women's Empowerment in Agriculture Index
CGAPFA	Consultative Group to Assist the Poor, Financial Access	SDG GI	Equal Measures 2030 SDG Gender Index
CIRI	Cingranelli-Richards Human Rights Data	SIGI	OECD Social Institutions and Gender Index
CUEI.....	Columbia University Earth Institute	SWPER.....	International Center for Equity in Health Survey-based Women's Empowerment Index
CRR.....	Center for Reproductive Rights	UCDP	Uppsala Conflict Data Program
DBD	Doing Business Database, World Bank	UIS.....	UNESCO Institute for Statistics Database
DHS.....	Demographic and Health Surveys	UNAIDS.....	Global AIDS Monitoring Database
EIU.....	Economist Intelligence Unit	UNDESA	UN Department of Economic and Social Affairs
EPI	Environmental Performance Index (Center for International Earth Science Information Network and Yale Center for Environmental Law and Policy)	UNICEF	United Nations Children's Fund
FEI.....	GEDI Female Entrepreneur Index	UNODC	United Nations Office on Drugs and Crime
Gallup.....	Gallup World Survey	WB Findex	Global Financial Inclusion (Findex) Database, World Bank
GDI.....	UNDP Gender Development Index	WBL.....	Women, Business and the Law database, World Bank
GEI.....	European Union Gender Equality Index	WDI	World Development Indicators, World Bank
GEM.....	Global Entrepreneurship Monitor 2010-2012 pooled data	WE3.....	USAID Women's Economic Empowerment and Equality Dashboard
GGGI	WEF Global Gender Gap Index	WEAI	IFPRI Women's Empowerment in Agriculture Index
GVC.....	Global Venture Capital and Private Equity Country Attractiveness Index 2012	WEF.....	Global Competitiveness Report 2012-2013, World Economic Forum
HDRO.....	(UN) Human Development Report Office	WEI	The Hunger Project Women's Empowerment Index
HF.....	Heritage Foundation Index of Economic Freedom	WEOI	Economist Intelligence Unit Women's Economic Opportunity Index
IDM	IDM Individual Deprivation Measure	WGI.....	Worldwide Governance Indicators
IFRT&D.....	International Forum for Rural Transport & Development	WHO.....	World Health Organization
ILO.....	International Labor Organization	WISTAT 4 UN.....	Women's Indicators and Statistical Database of the United Nations (version 4)
IPU.....	Inter-Parliamentary Union	WPS.....	Georgetown University Women, Peace, and Security Index
ISS GEI.....	ISS Gender Equity Index	WWEI.....	CFR Women's Workplace Equality Index.
ITU.....	World Telecommunications CT Indicators, International Telecommunications Union		
LFS.....	Labor force survey (ILO)		
LSMS.....	Living Standards Measurement Study, World Bank		
MGII	Economics Center of Sorbonne Multidimensional Gender Inequalities Index		
MICS.....	Multiple Indicators Cluster Survey, UNICEF		

Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
ECONOMIC ACHIEVEMENTS			
Income	Estimated earned income, by gender	GGGI, HDI	WEF, HDRO
	Proportion of women who report having had enough money [income] to buy food that they or their family needed in the past 12 months.	SDG GI	Gallup
	Proportion of women who report having had enough money [income] to provide adequate shelter or housing in the past 12 months	SDG GI	Gallup
	Ratio of female/male earned income	MGII	WB
	Ratio of female to male wages	ISS GEI	ILO
	Hunger (an indicator of very low income)	IDM	Wisor and others (2014)
Savings (financial)	Saved at a financial institution, female (% age 15+)	APEC	WB Findex
Household and business assets	Household asset index	IDM	Wisor and others (2014)
	Housing materials and condition of the dwelling	IDM	Wisor and others (2014)
	Ownership of land and other assets	WEAI, pro-WEAI	Alkire and others (2013), Malapit and others (2019)
Amount of leisure time	Labor burden as percentage of 24 hours	IDM	Wisor and others (2014)
	Workload/work balance	WEAI, pro-WEAI	Alkire and others (2013), Malapit and others (2019)
	Satisfaction with available leisure time	WEAI	Alkire and others (2013)
Vulnerability to shocks	Old age pension recipients (female/male ratio)	UNDP2	HDRO
Type and quality of work (e.g., formal-informal, job security, access to benefits)	Share of employment in nonagriculture, female (% of total nonagricultural employment)	UNDP2	ILO
	Contributing (unpaid) family workers as % of total employment	APEC, MGII	Calculated from WDI data
	Professional and technical workers (female/male ratio)	GGGI	LFS
	Whether payments for childcare are tax deductible (Y/N)	APEC, ISS GEI	WBL
	Must employers provide leave to care for sick relatives? (Y/N)	ISS GEI	WBL
	Mandatory paid maternity leave (days)	UNDP3	WBL
	Does the law mandate paid paternity leave? (Y/N)	ISS GEI	WBL

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Type and quality of work (e.g., formal-informal, job security, access to benefits) (continued)	Paid maternity and paternity leave	WEOI	ILO
	Whether employers must give employees an equivalent position when they return from maternity leave (Y/N)	APEC, ISS GEI	WBL
	Whether the law mandates paid or unpaid maternity leave (Y/N)	APEC, ISS GEI	WBL
	Whether the law mandates paid or unpaid parental leave (Y/N)	APEC, ISS GEI	WBL
	Percentage of wages paid during maternity leave	WE3, ISS GEI	WBL
	Length of paid maternity leave? (calendar days)	WE3	WBL
	Do women receive at least 2/3 of their wages for the first 14 weeks or the duration of the leave if it is shorter? (Y/N)	ISS GEI	WBL
	What is the difference between leave reserved for women and men relative to leave reserved for women, as a function of who pays?	ISS GEI	WBL
	Can parents work flexibly? (Y/N)	ISS GEI	WBL
ECONOMIC EMPOWERMENT (FINAL OUTCOME) & AGENCY/EMPOWERMENT (INTERMEDIATE OUTCOME)			
Control over household expenditure	Control over personal income	pro-WEAI	Malapit and others (2019)
Control over savings and investment	(No PM indicators in this dimension)		
Control over productive assets	Purchase, sale, or transfer of assets	WEAI	Alkire and others (2013)
	Input in productive decisions	WEAI, pro-WEAI	Alkire and others (2013), Malapit and others (2019)
	Control over use of income	pro-WEAI	Malapit and others (2019)
Increased financial independence/autonomy	Used the internet to pay bills or buy something online in the past year, female (% age 15+)	APEC, WE3	WB Findex
	Autonomy in production	WEAI	Alkire and others (2013)
	Autonomy in income/Control over income	WEAI, pro-WEAI	Alkire and others (2013), Malapit and others (2019)
	Level of autonomy to decide on an action and carry it out independently	WEAI	Adapted from DHS and Alkire and others (2013)

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Absence of stress/ economic well-being ("peace of mind")	Proportion of women who report being satisfied with the quality of water in the city or area where they live	SDG GI	Gallup
	Proportion of women who report being satisfied with the quality of air where they live	SDG GI	Gallup
	Environmental problems	IDM	Wisor and others (2014)
	Homelessness	IDM	Wisor and others (2014)
Leadership roles	Percentage of firms that report female participation in ownership (%)	APEC, WE3	World Bank Enterprise Surveys
	Percentage of firms that report female participation in top management (%)	APEC, WE3	WDI
	Percentage of women (men) in the total number of persons employed in management.	SIGI	ILO
	Female share of employment in senior and middle management (%)	UNDP3	ILO
	Men make better business executives than women (Y/N)	FEI, ISS GEI	Gallup
	Percentage of voters who believe that "men make better leaders"	ISS GEI	Gallup
	Women in ministerial positions (female/male ratio)	APEC, GGGI, SDG GI, AGEI, MGII	IPU
	Women's political participation (% of ministerial positions and seats in parliament held)	WEOI	UN
	Years with female head of state (female/male ratio)	GGGI	WEF calculations
	Leadership positions in community	WEAI	Alkire and others (2013)
	Proportion of seats held by women in parliament (%)	APEC, UNDP2, WE3, GGGI, SDG GI, MGII	WDI, IPU
	Percentage of women (men) in the total number of representatives of the lower or single House of the Parliament.	SIGI, WPS	IPU
	Percentage of seats held by women on a country's Supreme Court or highest court	SDG GI, AGEI	WBL
	How close women are to parity with men at the highest levels of political decision-making (scale of 0-100)	APEC	WEF

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Self-confidence/ self-esteem	Percentage of women who believe they have adequate start-up skills to start a business	FEI	GEM
	Control over personal decision-making	IDM	Wisor and others (2014)
	Self-confidence and assertiveness	WEAI	Alkire and others (2013)
	Self-efficacy (e.g., Bandura scale, New General Self-Efficacy scale)	pro-WEAI	Malapit and others (2019)
INDIVIDUAL FACTORS			
Health	Health status	IDM	Wisor and others (2014)
	Health care access	IDM	Wisor and others (2014)
	Health care quality	IDM	Wisor and others (2014)
	Cooking fuel/smoke exposure	IDM	Wisor and others (2014)
	Risk of work-related injuries	IDM	Wisor and others (2014)
	Life expectancy at birth, by gender	GDI	UNDESA
	Ratio of female to male life expectancy	MGII	WISTAT.4 UN
	Maternal mortality ratio (per 100,000 live births)	APEC, SDG GI, WE3	DHS or MICS and modeling, WHO Global Health Observatory
	Ratio of female to male mortality rate	ISS GEI	WDI
	Missing women	MGII	OECD
	Attended births (% of live births)	APEC, UNDP3	WHO, UNICEF, WDI
	Antenatal care coverage (% at least one visit)	UNDP3	UNICEF
	Prevalence of obesity among women aged 18+ years	SDG GI	WHO
	Prevalence of anemia among women of reproductive age (% of women ages 15-49)	APEC, SDG GI	WHO, DHS
	Adolescent birth rate per 1,000 women in that age group, by age of the mother (15-19)	SDG GI, WEOI, MGII	UNSD, UNFPA
	Access to contraception	IDM	Wisor and others (2014)
	% of women who have access to contraception	MGII	WISTAT.4 UN

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Health (continued)	Percentage of reproductive age women (15-49) using modern contraception	SDG GI, WEOI	UNDESA, DHS, MICS, or other health surveys
	Contraceptive prevalence, any method (% of married or in-union women of reproductive age, 15-49 years)	UNDP3	UNDESA
	Unmet need for family planning (% of married or in-union women of reproductive age, 15-49 years)	UNDP3	UNDESA
	Extent to which there are legal grounds for abortion (score)	SDG GI	CRR
	Female population 15+ living with HIV/AIDS (%)	APEC	UNAIDS
	Prevalence of HIV, female (percentage ages 15-24)	WE3	WDI
	Knowledge about HIV prevention in young people (Females aged 15-19) (percentage)	WE3	UNAIDS
	Household air quality (scale of 0-100)	APEC	EPI
Education	How close women are to achieving parity with men in literacy; net primary school enrollment; net secondary school enrollment; and gross tertiary enrollment (scale of 0-100)	APEC	WEF
	Literacy rate among adult women (aged 15+ years)	SDG GI, WEOI, ISS GEI	UIS, WDI
	Literacy rate (female/male ratio)	GGGI, MGII	UIS
	Enrollment in pre-primary education (female/male ratio)	UNDP2	UIS
	% of female teachers	MGII	WISTAT.4 UN
	Is primary education free and compulsory? (Y/N)	ISS GEI	WBL
	Enrollment in primary education (female/male ratio)	UNDP2, ISS GEI, MGII	UIS, WDI
	Enrollment in secondary education (female/male ratio)	UNDP2, GGGI, ISS GEI, MGII	UIS, WDI
	Population with at least some secondary education	UNDP2	HDRO calculations
	Enrollment in tertiary education (female/male ratio)	GGGI, ISS GEI, MGII	UIS, WDI
	Percentage of girls/young women aged 3-5 years above upper secondary graduation age who have completed secondary education	SDG GI	UIS
	Mean years of schooling among adults ages 25 and older	GDI, WPS, WEOI	UIS
	Expected years of schooling for students enrolled in primary and secondary education, by gender	GDI, WEOI	UIS
Total number of years of tertiary education that a woman can expect to receive in the future	WEOI	UIS	

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Education (continued)	Percentage of young women (aged 15-24 years) not in education, employment, or training (NEET)	SDG GI	ILO
	Mean scores of girls in math (scale of 700)	APEC	OECD (PISA)
	Mean scores of girls in reading (scale of 700)	APEC	OECD (PISA)
	Ratio of boys' scores to girls' scores in math	APEC	OECD (PISA)
	Ratio of boys' scores to girls' scores in reading	APEC	OECD (PISA)
	Percentage of female secondary education, vocational pupils (%)	APEC	WDI
	Percentage of female graduates from tertiary education who are in STEM fields	UNDP3	UIS
	Percentage of graduates from tertiary education in STEM fields who are female	APEC, UNDP3	UIS
	Percentage of women researchers (%)	APEC, WE3	UNESCO
	Percentage of women R&D personnel (%)	APEC	UIS
	Primary completion rate, female (percentage)	WE3	WDI
	Completed schooling	IDM	Wisor and others (2014)
	Knowledge, skills, and abilities	IDM	Wisor and others (2014)
	Human Capital Index (HCI): Expected Years of Schooling, Female	WE3	Human Capital Index
	Willingness to take risks	Percentage of female business owners with a higher education degree	FEI
Availability, accessibility and affordability of SME support and training programs for women		FEI	Women's Economic Opportunity Report
Percentage of women who can identify good opportunities to start a business in the area where they live		FEI	GEM
Soft skills	Percentage of women who do not believe that fear of failure would prevent them from starting a business	FEI	GEM
	Used a mobile phone or the internet to access an account, female (percentage of age 15+)	WE3	WB Findex
	Percentage of women ages 25 and older who report having a mobile phone that they use to make and receive personal calls	WPS	Gallup
	Used a mobile phone or the internet to access an account, female (percentage of age 15+)	WE3	WB Findex

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Work experience	(No PM indicators in this dimension)		
Personal access to networks	Social connectedness through professional networks	pro-WEAI	Malapit and others (2019)
	Percentage of women who personally know an entrepreneur who started a business within the last two years	FEI	GEM
	The percentage of women with LinkedIn profiles	FEI	LinkedIn Database
Participation in women's advocacy organizations, cooperatives and labor unions	Women's participation in community groups/ associations/networks	IDM, pro-WEAI	Wisor and others (2014), Malapit and others (2019)
	Ability to change your community	IDM	Wisor and others (2014)
HOUSEHOLD FACTORS			
Division of household work and child/elder care	Average time spent on unpaid work, female (minutes per day)	APEC	OECD Employment Data Base
	Time spent on unpaid domestic chores and care work, women ages 15 and older (% of 24-hour day)	UNDP2	UN Statistics Division
	Time spent on unpaid domestic chores and care work (female/male ratio)	UNDP2	HDRO
	Does the law provide for valuation of nonmonetary contributions? (Y/N)	ISS GEI	WBL
Bargaining power inside the household	Proportion of women recognized as contributing family workers (as a % of total employment)	SDG GI, WE3	Modeled ILO estimate
	Can a married woman be "head of household" or "head of family" in the same way as a man? (Y/N)	AGEI, ISS GEI	WBL
	Are married women required by law to obey their husbands? (Y/N)	AGEI	WBL
	Whether women and men have the same legal rights, decision-making abilities, and responsibilities within the household	SIGI	SIGI Country profiles
	Respect within the household	pro-WEAI	Malapit and others (2019)
Ability to make or participate in decisions about household expenditure	Decision-making power across multiple domains, using the Women's Empowerment in Agriculture Index (WEAI) (i.e. production, productive resources, income, leadership, and time use)	WEAI, pro-WEAI	Alkire et al. 2013, Malapit and others (2019)

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
LAWS, REGULATIONS AND POLICIES			
Property rights	Whether women and men have the same legal rights, decision-making abilities, and responsibilities within the household	SIGI	SIGI Country profiles
	Whether women and men have the same legal rights to initiate divorce and have the same requirements for divorce or annulment	SIGI	SIGI Country profiles
	Unmarried women and unmarried men have equal rights to property (Y/N)	APEC	WBL
	Married women and married men have equal rights to property (Y/N)	APEC, ISS GEI	WBL
	Gender inequality in access to real property	MGII	OECD
	Gender inequality in access to agricultural land (categorical)	MGII	OECD
	Equality of inheritance rights between sons and daughters (Y/N)	APEC, SIGI	WBL
	Equality of inheritance rights between husbands and wives (Y/N)	APEC, SIGI, ISS GEI	WBL
	Do original owners legally administer property during marriage? (Y/N)	AGEI, ISS GEI	WBL
	Extent to which laws afford women and men equal and secure access to land use, control, and ownership	SDG GI, WBL, SIGI, AGEI	WBL
	Whether women and men have the same legal rights and secure access to non-land assets	SIGI, AGEI	SIGI Country profiles
	Property rights for women (0-5, higher is better)	WE3	Varieties of Democracy (v-dem)
	Property ownership rights for women	WEOI	EIU analysts' assessment based on WBL data
Absence of gender discrimination	Country ratification of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	WEOI	UN Treaty Collection
	Women's economic rights (rating)	ISS GEI	CIRI
	Women's social rights (rating)	ISS GEI, MGII	CIRI
	Gender inequality in social rights (categorical)	MGII	CIRI
	Gender inequality in economic rights (categorical)	MGII	CIRI
	Gender inequality in political rights (categorical)	MGII	CIRI
	Sex ratio at birth (male-to-female ratio)	UNDP2, WPS	UNDESA

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Absence of gender discrimination (continued)	Aggregate score for laws and regulations that limit women's ability to participate in society and the economy or that differentiate between women and men	WPS	WBL
	Enforcement of equal pay for equal work	WEOI	ILO
	National policy is aligned with the principle of non-discrimination in employment and occupation	WEOI	ILO
	Extent to which the country has laws mandating women's workplace equality	SDG GI, FEI, SIGI	WBL
	Existing laws mandating non-discrimination based on gender in hiring (Y/N)	APEC, AGEI, ISS GEI	WBL
	Whether it is illegal for an employer to ask about family status during a job interview (Y/N)	APEC	WBL
	Enforcement of non-discrimination in employment and occupation	WEOI	ILO
	Degree of de facto discrimination against women in the workplace	WEOI	WEF
	Are the mandatory retirement ages for men and women equal? (Y/N)	ISS GEI	WBL
	Are the ages at which men and women can retire with full pension benefits equal? (Y/N)	ISS GEI	WBL
	Are the ages at which men and women can retire with partial pension benefits equal? (Y/N)	ISS GEI	WBL
	Are there specific tax deductions or tax credits that are only applicable to men? (Y/N)	ISS GEI	WBL
	Can a woman legally get a job or pursue a trade or profession in the same way as a man? (Y/N)	ISS GEI	WBL
	Does the government support or provide childcare services? (Y/N)	ISS GEI	WBL
	Female mandatory retirement age	APEC	WBL
	Difference in the pensionable retirement age between women and men	WEOI, ISS GEI	ILO
	Whether daughters and sons have equal inheritance rights (Y/N)	AGEI, ISS GEI	SIGI Country Profiles, WBL
	Whether widows and widowers have equal inheritance rights (Y/N)	AGEI	SIGI Country Profiles
	Whether there are laws penalizing or preventing the dismissal of pregnant women (Y/N)	APEC, ISS GEI	WBL
	Whether the legal framework protects women's reproductive health and rights	SIGI	SIGI Country profiles

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Absence of gender discrimination (continued)	Whether women and men have the same citizenship rights and ability to exercise their rights	SIGI	SIGI Country profiles
	Can a woman (married or unmarried) confer citizenship to her children in the same way as a man? (Y/N)	ISS GEI	WBL
	Whether women and men have the same rights to provide testimony in court, hold public or political office in the judiciary and sue	SIGI	SIGI Country profiles
	Does a woman's testimony carry the same evidentiary weight as a man's (Y/N)	APEC, AGEI, ISS GEI	WBL
	Does the law establish an anti-discrimination commission? (Y/N)	ISS GEI	WBL
	Does the law mandate legal aid in civil and family matters? (Y/N)	ISS GEI	WBL
	Is there a small claims court or a fast-track procedure for small claims? (Y/N)	ISS GEI	WBL
Protection against violence and sexual harassment	Proportion of women who report that they "feel safe walking alone at night in the city or area where they live."	SDG GI, SIGI, WPS	Gallup
	Physical security of women, including domestic violence, rape and sexual assault, murder and honor killings	MGII	WISTAT.4 UN
	Freedom from violence	IDM	Wisor and others (2014)
	Female victims of intentional homicide (per 100,000 population)	SDG GI	UNODC
	Women's attitudes about intimate partner violence, using DHS survey data or question set	pro-WEAI	Malapit and others (2019)
	Whether there is legislation that specifically addresses domestic violence	APEC, ISS GEI	WBL
	Whether the legal framework protects women from violence including intimate partner violence, rape and sexual harassment, without legal exceptions and in a comprehensive approach.	SIGI, AGEI, WEOI	SIGI Country profiles
	Does legislation explicitly criminalize marital rape? (Y/N)	ISS GEI	WBL
	Are there clear criminal penalties for domestic violence? (Y/N)	ISS GEI	WBL
	Whether there is a specialized court or procedure for cases of domestic violence (Y/N)	APEC	WBL
Existence of legislation against sexual harassment in employment (Y/N)	APEC, AGEI, ISS GEI	WBL	

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Protection against violence and sexual harassment (continued)	Are there criminal penalties for sexual harassment in employment? (Y/N)	ISS GEI	WBL
	Are there civil remedies for sexual harassment in employment? (Y/N)	ISS GEI	WBL
	Whether the legal framework offers women legal protection from domestic violence (Y/N)	AGEI	SIGI Country Profiles
	Violence against women, including the existence of legal indicators and the % of women who are beaten by their partners	MGII	WISTAT.4 UN
	Existence of women's legal protection from domestic violence such as rape, assault, and harassment (score of 0, .25, .5, .75, or 1)	APEC	OECD
	Percentage of women aged 15–49 years who consider a husband to be justified in hitting or beating his wife for at least one of the specified reasons, i.e., if his wife burns the food, argues with him, goes out without telling him, neglects the children, or refuses sexual relations	SIGI, SDG GI	MICS, DHS
	Percentage of ever-partnered women who ever suffered intimate partner physical and/or sexual violence	UNDP3, SIGI, WPS	UN Women
	Percentage of women ages 15 or more years who have experienced violence from other than an intimate partner	UNDP3	UN Women
	Percentage of women aged 15–49 years who have undergone female genital mutilation	SIGI, UNDP3	UNICEF Global Databases
	% of genital mutilation	MGII	WISTAT.4 UN
	Is there legislation on sexual harassment in education? (Y/N)	ISS GEI	WBL
	Total number of battle deaths from state-based, non-state, and one-sided conflicts per 100,000 population	WPS	UCDP
Equal right to start and operate a business	Existence of government or non-government programs offering small and medium enterprises support and/or development training	WEOI	EIU analysts' qualitative assessment
	Can a married woman sign a contract in the same way as a married man (Y/N)	APEC	WBL
	Can an unmarried woman sign a contract in the same way as an unmarried man (Y/N)	APEC, ISS GEI	WBL
	Can a married woman register a business in the same way as a married man (Y/N)	APEC	WBL
	Can an unmarried woman register a business in the same way as an unmarried man (Y/N)	APEC, ISS GEI	WBL

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Equal right to start and operate a business (continued)	Starting a business: number of procedures for women	WE3	DBD
	Starting a business: time for women (days)	WE3	DBD
	Starting a business: cost for women (percentage of income per capita)	WE3	DBD
	Time and cost involved in starting a business	WEOI	DBD
SOCIAL NORMS			
Attitudes toward gender roles	Percentage of population who disagrees with "It is perfectly acceptable for any woman in your family to have a paid job outside the home if she wants one."	SIGI, WPS	Gallup, ILO
	Percentage of employers and managers who believe that when jobs are scarce, men have more right to a job than women	ISS GEI	Gallup
	SIGI: Restricted Access to Productive and Financial Resources Sub-Index, Discriminatory Attitudes toward Working Women (proportion)	WE3	Social Institutions and Gender Index
	Ratio of the percentage of ever married women to men (ages 15-19)	MGII	WISTAT.4 UN
	What is the legal minimum age of marriage for girls? What is the minimum age of marriage for girls with parental consent or judicial authorization?	ISS GEI	WBL
	Whether women and men have the same legal minimum age of marriage	SIGI	SIGI Country profiles
	Whether there are laws setting the same minimum age of marriage for women and men (Y/N)	AGEI	SIGI Country Profiles
	Percentage of women aged 20-24 who were married or in a union before age 18 (child marriage)	SDG GI	DHS or MICS
	Percentage of girls aged 15-19 years ever married, divorced, widowed or in an informal union	SIGI	UN World Marriage Data (2017)
	Women married by age 18 (% of women ages 20-24 who are married or in-union)	UNDP3	UN Statistics Division
	Are married women required by law to obey their husbands? (Y/N)	ISS GEI	WBL
	Gender inequality in parental authority in legal and customary practices regarding the legal guardianship of a child during marriage and after divorce (categorical)	MGII	OECD
	Gender inequality in family law (categorical)	MGII	WISTAT.4 UN
	Gender inequality in inheritance (categorical)	MGII	
Whether women and men have the same right to be the legal guardian of a child during marriage (Y/N)	AGEI	SIGI Country Profiles	

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Attitudes toward gender roles (continued)	Whether women and men have the same right to be legal guardian of and have custody rights over a child after divorce (Y/N)	AGEI	SIGI Country Profiles
	Can a married woman confer citizenship to her children in the same way as a man? (Y/N)	AGEI	WBL
	Percentage of parents who believe that education is more important for a boy	ISS GEI	Gallup
Women's freedom of mobility	SIGI "Access to Public Apace" measurement of restrictions women face in accessing public space (Score 0, .5, or 1)	APEC	OECD
	Gender inequality in the freedom to move outside the home (categorical)	MGII	GID OECD
	Regularly visits important locations	pro-WEAI	Malapit and others (2019)
	Can a woman legally choose where to live in the same way as a man? (Y/N)	ISS GEI	WBL
	Whether a married woman can apply for a passport in the same way as a married man (Y/N)	AGEI, ISS GEI	WBL
	Whether a married woman can choose where to live in the same way as a man (Y/N)	AGEI	WBL
	Can an unmarried woman apply for a passport in the same way as an unmarried man (Y/N)	APEC	WBL
	Can a woman legally travel outside the country in the same way as a man? (Y/N)	ISS GEI	WBL
	Can a woman legally travel outside her home in the same way as a man? (Y/N)	ISS GEI	WBL
	Citizenship rights (freedom of movement, dress code, access to passport)	WEOI	OECD, World Bank
Whether women and men have the same rights to apply for national identity cards (if applicable) and passports and travel outside the country	SIGI, ISS GEI	SIGI Country profiles, WBL	

ECONOMIC/JOB MARKET FEATURES

Availability of paid work	Percentage of women ages 25 and older who are employed	WPS	ILO
	Youth unemployment rate (female/male ratio)	UNDP2	HDRO
	Total unemployment rate (female/male ratio)	UNDP2	HDRO
	Proportion of women population ages 15 and older that is economically active (%)	APEC, GGGI, WE3	WDI, WBL
	Female share of the active population	MGII	WISTAT.4 UN
	Ratio of female to male labor force participation (in %)	APEC, ISS GEI, MGII	WDI

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Availability of paid work (continued)	Ratio of female to male labor force participation rate in main sectors	FEI	Calculation from ILO estimates
	Female unemployment rate (% of female labor force, modeled ILO estimate)	APEC	WDI
	Proportion of young women who are idle (women 15-24 who are not employed and not in school and not looking for work).	SDG GI	LFS or LSMS
	Respect received from paid and unpaid work	IDM	Wisor and others (2014)
Ability to work in male-dominated occupations	Proportion of women in science and technology research positions	SDG GI	UIS
	Proportion of females among legislators, senior officials and managers	ISS GEI	ILO
	Proportion of females in professional jobs	ISS GEI	ILO
	% of females in technical, managerial and administrative positions	MGII	WISTAT.4 UN
	Whether non-pregnant and non-nursing women can do the same jobs as men under the law (Y/N)	APEC	WBL
	Whether non-pregnant and non-nursing women can work in mining in the same way as men (Y/N)	APEC	WBL
	Whether non-pregnant and non-nursing women can work in construction in the same way as men (Y/N)	APEC	WBL
	Whether non-pregnant and non-nursing women can work in factories in the same way as men (Y/N)	APEC	WBL
	Whether non-pregnant and non-nursing women can work in jobs requiring lifting weights above a threshold in the same way as men (Y/N)	APEC	WBL
	Whether women can work the same night hours as men (Y/N)	APEC	WBL
	Legal restrictions on job types for women	WEOI	ILO
	Can women work the same night hours as men? (Y/N)	ISS GEI	WBL
	Can women work in jobs deemed hazardous, arduous or morally inappropriate in the same way as men? (Y.N)	ISS GEI	WBL
	Are women able to work in the same industries as men? (Y/N)	ISS GEI	WBL
	Are women able to perform the same tasks at work as men? (Y/N)	ISS GEI	WBL

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Absence of discrimination in wages and benefits	Wage equality between women and men for similar work (score of 0 to 1)	APEC, SDG GI	WEF
	Whether the law mandates equal remuneration for men and women for work of equal value (Y/N)	APEC, ISS GEI	WBL
	Equal pay for equal work is codified in law	WEOI	ILO
	Wage equality between women and men for similar work	SDG GI, AGEI	WB/WEF
General business environment	Regulatory quality	WEOI	WGI
	Proportion of employed who are own-account (self-employed) workers by sex of worker	WE3	LFS or LSMS, modeled ILO estimates
	Percentage of women-owned businesses who have only a few competitors that offer the same product or service	FEI	GEM
	Extent of market dominance by a few business groups	FEI	WEF
	Percentage of new women entrepreneurs who are offering new products (or adapting existing products)	FEI	GEM
	Percentage of new women entrepreneurs whose technology is less than five years old	FEI	GEM
	R&D expenditure as a percentage of GDP	FEI	OECD
Women's access to business and financial services	SIGI "Access to Credit" measurement of women's right and de facto access to bank loans (Score 0, .5, or 1)	APEC	OECD
	Ability to build a credit history	WEOI	DBD
	Existing law against discrimination by creditors on the basis of sex or gender in access to credit (Y/N)	APEC, ISS GEI	WBL
	Existing law against discrimination by creditors on the basis of marital status in access to credit	APEC, ISS GEI	WBL
	Gender inequality in access to credit (categorical)	MGII	OECD
	Women's access to finance programs	WEOI	EIU analysts' qualitative assessment
	Women's access to financial services	WEOI, pro-WEAI	CGAPFA, OECD, International Postal Union, Malapit and others (2019)
	Loan from a financial institution, female (% age 15+)	APEC, WE3	WB Findex
	Access to credit	WEAI	Alkire and others (2013)
	Private sector credit as a percent of GDP	WEOI	IMF

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Women's access to business and financial services (continued)	Proportion of women who hold a bank account at a financial institution	SDG GI, WE3, SIGI	WB Findex
	Women with account at financial institution or with mobile money-service provider (% of women ages 15 and older)	UNDP3, WPS	WB Findex
	Whether women and men have the same legal rights to open a bank account and obtain credit in a formal financial institution (Y/N)	SIGI, AGEI, ISS GEI	SIGI Country profiles, WBL
	Received digital payments in the past year, female (% age 15+)	APEC, SDG GI	World Bank Findex
	Credit card ownership, female (percentage of age 15+)	WE3	WB Findex
	Debit card ownership, female (percentage of age 15+)	WE3	WB Findex
	Do retailers provide information to private credit bureaus or public credit registries? (Y/N)	ISS GEI	WBL
	Do utility companies provide information to private credit bureaus or public credit registries? (Y/N)	ISS GEI	WBL
Women's access to markets	Effectiveness of anti-monopoly policy (scale of 1-7)	APEC	WEF
	Extent of market dominance (scale of 1-7)	APEC	WEF
	Intensity of local competition (scale of 1-7)	APEC	WEF
	Access of domestic companies ot international markets (scale of 0-100)	APEC	HF
Availability of infrastructure	Water source—distance and improvement	IDM	Wisor and others (2014)
	Water quantity	IDM	Wisor and others (2014)
	Household has access to electricity (hours per day)	IDM	Wisor and others (2014)
	Access to technology and energy	WEOI	ITU, WDI, CUEI
	Infrastructure risk (risk that infrastructure deficiencies will cause a loss of income)	WEOI	EIU, IFRT&D
	Proportion of women who report being satisfied with the quality of roads in the city or area where they live	SDG GI	Gallup
	Access to affordable and high-quality childcare (including care provided by the extended family)	FEI, WEOI	Women's Economic Opportunity Report, EIU
	Percentage of population who are internet users, female (%)	APEC, FEI, WE3, SDG GI	ITU

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Framework Element or Dimension	Indicator	PM Tool(s) Using Indicator	Data Source
Social capital	Borrowed from family or friends, female (percentage of age 15+)	WE3	WB Findex
	Borrowed from a savings club, female (percentage of age 15+)	WE3	WB Findex
	Personal support from friends and family	IDM	Wisor and others (2014)

Annex 5

Assessment of the Information Included in the M&E Tools

Project EDGE (EDGE)

Theory of change

The theory of change has three final outcomes (women's empowerment, sustainable livelihoods, and poverty alleviation) but no dimensions (due to narrow focus of the tool on asset ownership).

Causal links

The causal linkages are supported by the findings of behavioral research only.

Selection of indicators

The EDGE indicators were selected on the basis of clearly stated criteria.

Definition of indicators

The indicators refer to both the prevalence of ownership (Y/N) and to the value of assets owned and are suitable for use as indicators without any adjustments.

Quality of indicators

The indicators are drawn from specially designed survey modules developed in partnership with the World Bank and other international organizations have been piloted in seven countries.

Measurement methods

12 sub-domain sub-indexes are equally weighted arithmetic means of the indicators. Six domain sub-indexes were calculated as equally weighted geometric means of the sub-domain indexes.

Project Women's Empowerment in Agriculture Index (pro-WEAI)

Theory of change

No theory of change is provided. However, three dimensions ("domains") are identified in the text, based on Rowlands (1997): intrinsic agency (power within), instrumental agency (power to) and collective agency (power with).

Causal links

No causal linkages.

Selection of indicators

Some indicators were adopted or adapted from the WEAI, while others were identified on the basis of formative research with eight participating projects.

Definition of indicators

Several of the indicators are based on multiple variables using cutoff points determined through formative research. Project rankings were found to be robust with respect to changes in the cutoff points and to the weighting of indicators.

Quality of indicators

All of the indicators are drawn from specially designed survey modules that were piloted in nine countries. Seven of the pro-WEAI indicators were adapted from the widely used WEAI indicators. Six of the pro-WEAI indicators are evaluated using psychometric methods in Yount and others (2018).

Measurement methods

Qualitative formative research is discussed in detail, but there is no discussion of appropriate data collection procedures.

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CARE Strategic Impact Inquiry

Theory of change

In the theory of change, three elements of women's empowerment mutually interact and are causally linked to 17 dimensions and 23 sub-dimensions based on "a wide variety of studies."

Causal links

No support for the causal linkages is provided.

Selection of indicators

23 indicators are directly linked to 23 sub-dimensions.

Definition of indicators

No discussion of how the 23 indicators are defined.

Quality of indicators

The indicators have been used in numerous CARE project evaluations.

Measurement methods

No questionnaire modules are provided; only possible data sources for each indicator. Extensive recommendations on data collection approaches, including strong endorsement of formative research.

DCED Private Sector Development

Theory of change

The results framework two final outcomes (improved access, agency and growth) leading to impact (poverty reduction and enhanced empowerment). The seven dimensions ("categories") are identified in Annex D (Markel 2014)

Causal links

The rationale for the causal links to the final outcomes is presented in Appendix D.

Selection of indicators

The criteria used in selecting the indicators are discussed in detail in Markel (2014).

Definition of indicators

Does not discuss how the indicators are defined.

Quality of indicators

Only a few of the indicators are from standard international survey programs.

Measurement methods

Extensive suggestions on questionnaire design and data collection methods are provided, including suggested questionnaire modules (with sources indicated).

GCP Common Measurement Framework

Theory of change

The results framework has two final outcomes: power and agency, economic advancement and includes an intermediate gender equity outcome, but no dimensions (due to the tool's narrow focus on the coffee sector).

Causal links

No evidence is cited on the causal linkages in the results framework.

Selection of indicators

Indicators were selected using five criteria (direct, objective, useful for management, practical, adequate). The rationale for including individual indicators is provided in Annex B (Rubin and Nordehn 2017).

Definition of indicators

The indicators are defined clearly in Annex B.

Quality of indicators

The indicators are all specific to the CMF. No international indicators are included.

Measurement methods

Limited information is provided on good data collection practices.

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OPHI Internationally Comparable Indicators

Theory of change

No theory of change is included. However, the conceptual framework based on Rowlands (1997) has four dimensions: control over personal decisions, domain-specific autonomy and household decision-making, and changing aspects in one's life (at the individual and communal levels).

Causal links

No theory of change is included.

Selection of indicators

Criteria for selection of indicators include accuracy, validity, reliability, relevance, international comparability, ability to assess both instrumental and intrinsic aspects, ability to reflect changes over time, and previous experience with particular indicators.

Definition of indicators

No information is provided on how the indicators are defined.

Quality of indicators

The indicators are all based on standard international methodologies and/or sources.

Measurement methods

Includes survey questions for each indicator (with sources indicated). Data collection is not discussed.

Oxfam Women's Empowerment Index

Theory of change

The theory of change includes two-way causal linkages between the three levels of change (personal, relational and environmental), with four dimensions (power from within, power to, power with, and power over).

Causal links

No evidence on causal linkages is provided.

Selection of indicators

Selection of indicators is participatory and is typically done in a workshop.

Definition of indicators

Indicators are defined from responses to multiple survey questions using cutoff values that are determined in consultation with stakeholders. Stata code is provided indicating how the responses are coded for each indicator.

Quality of indicators

Most of the WEI indicators are drawn from DHS, the WEAI and the LSMS.

Measurement methods

Includes survey questions for each indicator (with sources indicated) in Appendix 4. Some advice on data collection is provided in Appendix 4.

UNF Measuring Women's Economic Empowerment

Theory of change

Theory of change including inputs, outputs, direct outcomes, intermediate outcomes and final outcomes, with 14 dimensions, was developed at a meeting of researchers.

Causal links

Justification for the causal links in the theory of change based on the findings in the Roadmap (Buvinic and others 2013).

Selection of indicators

Most indicators were identified during the meeting of researchers. However, specific criteria for the selection of indicators are also provided in Knowles (2015).

Definition of indicators

Instructions for the calculation of indicators from survey responses are provided in appendices.

Quality of indicators

Several of the indicators are from large international survey programs (DHS, MICS, LSMS), but most are not.

Measurement methods

Includes survey questions for each indicator (with sources indicated). Data collection is discussed briefly.

Continued on next page →

Ipsos Measuring Women's Economic Empowerment

Theory of change

No theory of change is provided. However, conceptual framework has three dimensions (objective reality, self-perception, community cultural norms) in four arenas (individual, household, work and community).

Causal links

No theory of change is provided.

Selection of indicators

The criteria for selecting the indicators are not discussed. (The 2018 indicators were revised in 2019, with the addition of four additional dimensions for work.)

Definition of indicators

No information is provided on how the indicators are defined.

Quality of indicators

The sources of the indicators are not reported.

Measurement methods

Questions are listed for each indicator, along with response categories. Users of the tool are advised to adapt the questions and codes to the local context.

J-PAL Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations

Theory of change

An illustrative theory of change is included. A conceptual framework is also included with ten illustrative dimensions.

Causal links

An ongoing J-PAL review of the effect of interventions on empowerment (Chang and others 2020) provides the rationale for the causal linkages in the theory of change.

Selection of indicators

Only illustrative indicators are included in the main report (Glennester and others 2018). However, many indicators are listed for 7 dimensions in Appendix 1. The criteria for selecting the indicators are not discussed.

Definition of indicators

The actual definition of the indicators (i.e., how they should be coded from the responses) is not provided.

Quality of indicators

A few of the indicators listed in Appendix 1 are from large survey programs, but most are taken from specially designed surveys conducted for RCTs.

Measurement methods

Questionnaire modules for possible indicators are listed in Appendix 1 by 7 dimensions (with sources indicated). Emphasizes need to use formative research to adapt survey questions to local contexts. Good practices in data collection are described in detail.

EMERGE Project (EMERGE)

Theory of change

No theory of change. Tool explains that it is the responsibility of researcher or practitioner to provide. The multitude of indicators are grouped into nine dimensions on the EMERGE project website.

Causal links

No theory of change is provided.

Selection of indicators

The indicators listed at the EMERGE website must meet the following criteria: must be quantitative and be from either a large national or multi-country survey or from a peer-reviewed publication.

Definition of indicators

Indicators are defined clearly, including how they are scored and their source. However, some of the indicators are based on multiple questions with multiple cutoff points.

Quality of indicators

Some of the indicators are from large international survey programs (DHS, MICS, LSMS), but most are from standalone surveys.

Measurement methods

Questionnaire modules for more than 300 indicators (with sources indicated) are listed by 9 dimensions at the EMERGE website. Data collection procedures are not discussed.

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IDRC GrOW Measuring Women's Economic Empowerment

Theory of change

No theory of change is included. However, a simple conceptual framework is presented with three elements (direct, indirect, and constraints) with 16 dimensions.

Causal links

No theory of change.

Selection of indicators

Indicator selection was based on "a systematic review of the scholarly literature between 2005 and 2017."

Definition of indicators

No information is provided on the definition of the indicators.

Quality of indicators

References to the sources of the indicators are provided, most of which are individual research studies.

Measurement methods

Sample survey questions are not provided. Data collection is not discussed.

World Bank Measuring Women's Agency

Theory of change

No theory of change is included. However, a conceptual framework is included with three dimensions (goal-setting, perceived control and ability, acting on goals).

Causal links

No theory of change.

Selection of indicators

The seven indicators were carefully selected to represent the three dimensions of agency (goal-setting, ability to achieve goals, and acting on goals).

Definition of indicators

The indicators are based on responses to multiple questions without clear explanations of how the responses should be coded.

Quality of indicators

The psychometric properties of the indicators are carefully assessed and compared to alternative measures.

Measurement methods

Questionnaire modules are included for all indicators (with sources indicated), but data collection procedures are not discussed.

Gates Foundation What Gets Measured Matters

Theory of change

Includes conceptual framework with three dimensions (agency, institutional structures and resources) and several sub-dimensions. Includes several illustrative results chains.

Causal links

No evidence on causal linkages between the elements of the conceptual framework is provided.

Selection of indicators

The selection of indicators is clearly linked to the dimensions and sub-dimensions of the conceptual framework. However, there is no information provided on how individual indicators were selected.

Definition of indicators

Many (but not all) of the indicators include references to their sources, which presumably include more detailed information on their definitions.

Quality of indicators

Only a few of the indicators are from large international survey programs (DHS, LSMS).

Measurement methods

This tool provides very detailed and extensive guidance on data collection methods. However, only illustrative sample questions are included in the tool.

Continued on next page →

WOW Measurement of Women's Economic Empowerment

Theory of change

No theory of change is included. However, a conceptual framework is included with three elements (Access, Control, Constraints and Enablers).

Causal links

No theory of change.

Selection of indicators

Illustrative indicators are linked to conceptual framework. Extensive discussion of the criteria for selecting the indicators.

Definition of indicators

The indicators are clearly defined and include references in most cases to sources with additional information.

Quality of indicators

Most of the indicators are based on standard international sources (ILO, World Bank, UN).

Measurement methods

No sample questions or questionnaire modules are included. There is some discussion of good practices in data collection.

Annex 6

List of M&E Indicators by Conceptual Framework Element & Dimension

ABBREVIATION KEY

EDGE	UNSD Evidence and Data for Gender Equality (Project EDGE)
pro-WEAI	IFPRI Project Women's Empowerment in Agriculture Index
CARE SII	CARE Strategic Impact Inquiry
DCED PSD	DCED Private Sector Development
GCP CMF	Global Coffee Platform Common Measurement Framework for Gender Equity in the Coffee Sector
OPHI ICI	OPHI Internationally Comparable Indicators
Oxfam WEI	Oxfam Women's Empowerment Index
UNF	UN Foundation Measuring Women's Economic Empowerment
MWEE	Ipsos Measuring Women's Economic Empowerment
J-PAL	J-PAL Practical Guide to Measuring Women's and Girls' Empowerment in Impact Evaluations
EMERGE	UCSD/GEH Evidence-Based Measures of Empowerment for Research on Gender Equality
GrOW	IDRC Measuring Women's Economic Empowerment
MWA	World Bank Measuring Women's Agency
WGMM	Gates What Gets Measured Matters
WOW	DfID Measurement of Women's Economic Empowerment

Note: WOW indicators converted from national or community level to individual level indicators.

Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
ECONOMIC ACHIEVEMENTS			
Income (all sources)	Woman's income earned from agricultural labor/ production	GrOW, GCP CMF	Radel et al. 2016
	Woman's income from wage and salary employment	MWEE	Ipsos Public Affairs (2018)
	Average monthly income earned per hour worked for pay by women	UNF	Bandiera (2014)
	Average monthly hours worked for pay by woman	UNF	Bandiera (2014)
	Income earned by women per hour of paid work	WOW	ILO
	Number of employees in the woman's business	UNF	Bandiera (2014)
	Woman's business profits	UNF	Bandiera (2014) and World Bank, Kenya Female Enterprise Survey (2013).
	Owner or director of business with increased profit	WOW	
	Household consumption per capita of selected items (useful as an income measure in rural areas where it is difficult to identify women's share of household income)	UNF	Adapted from Grosh and Glewwe (2000) and from 2009 Cambodia Socio-Economic Survey.
Savings (financial)	Household savings	UNF, J-PAL	Adapted from Grosh and Glewwe (2000), Glennerster and others (2018)
	Saves regularly (1-10)	J-PAL	Glennerster and others (2018)
	Has individual formal savings and/or safe and private savings	WOW	WB Global Findex
	Woman has some cash savings (Y/N)	WGMM	Adapted from Women's Empowerment Scale (2014)
Household and business assets	Ownership of land and other assets	pro-WEAI, GCP CMF	Malapit and others (2019)
	Value of wealth held by individual in [asset], by gender	EDGE	EDGE Project (2019)
	Individual has [specific type of financial asset] in their name, by gender (Y/N)	EDGE	EDGE Project (2019)
	Gender wealth gap: share of the total net worth of key assets owned by women and men in the same household	EDGE	EDGE Project (2019)
	Household asset index	UNF	Multiple Indicator Cluster Survey (MICS), UNICEF (October 2013)

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Household and business assets (continued)	Net value of woman's financial assets	UNF	Adapted from the Gender Asset Gap Project in Ecuador, Ghana and India (2009).
	Value of woman's bank and financial accounts	UNF	Adapted from the Gender Asset Gap Project in Ecuador, Ghana and India (2009).
	Value of woman's physical assets (e.g., motor vehicle, mobile phone)	UNF	Uganda WEAI
	Woman owns a house alone (Y/N)	WGMM	World Bank: Gender Data Portal
	Woman farmer owns agricultural assets (Y/N)	WGMM	WEAI (Alkire and others 2013)
Amount of leisure time	Workload/work balance	pro-WEAI	Malapit and others (2019)
	Satisfaction with available leisure time	DCED PSD	Alkire and others (2013)
	Total number of hours per day in productive work and unpaid care work	WOW	OECD, UN Statistics Division
	Reports greater autonomy over own use of time	WOW	pro-WEAI
	Hours spent doing various activities (12 activities)	Oxfam WEI	Adapted from WB LSMS (Grosch and Glewwe 2000) and WEAI (Alkire and others 2013)
	Main activities during the past 24 hours (hour by hour, 26 activities coded)	Oxfam WEI	Adapted from WB LSMS (Grosch and Glewwe 2000)
	Other activities conducted at the same time (hour by hour, 26 activities coded)	Oxfam WEI	Adapted from WB LSMS (Grosch and Glewwe 2000)
Vulnerability to shocks	Household's reaction to financial shocks	J-PAL	Glennerster and others (2018)
	Woman has any social protection, such as basic nutritional support (Y/N)	WGMM	AusAID (2011)
Type and quality of work	Currently working in formal employment	WOW	ILO
	Currently working in a decent job (according to ILO guidance on decent work)	WOW	ILO
	Current work (whether paid or unpaid) is her choice	WOW	IPUMS-DHS
	Participation in agricultural labor/production (subsistence or paid)	GrOW	Radel et al. 2016

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Type and quality of work (continued)	Participation in paid work outside the home	GrOW	Mahmud & Tasneem 2014
	Number of employees in the woman's business	UNF	Bandiera (2014)
	Average monthly hours worked for pay by woman	UNF	Bandiera (2014)
	Opportunities for advancement in the workplace (Y/N)	MWEE	Ipsos Public Affairs (2018)
	Feel respected in the workplace (Y/N)	MWEE	Ipsos Public Affairs (2018)
ECONOMIC EMPOWERMENT (FINAL OUTCOME) & AGENCY/EMPOWERMENT (INTERMEDIATE OUTCOME)			
Control over household expenditure	Decision-making power over household spending	GrOW, DCED PSD	WEAI (Alkire and others 2013); Yount 2005; Anderson & Eswaran 2009; Sanyal 2009; Ashraf et al. 2010; Haile et al. 2012; Orso & Fabrizi 2015
	Control over personal income	MWEE, pro-WEAI	Ipsos Public Affairs (2018); Malapit and others (2019)
Control over savings and investment	Self-perception of efficacy in financial decision-making (i.e., savings)	GrOW	Ashraf et al. 2010
Control over productive assets	Share (percentage) of reported agricultural land area owned by women out of total reported agricultural land area owned by women and men in the same household	EDGE	EDGE Project (2019)
	Has individual or joint ownership or secure rights to agricultural land (by type of tenure)	WOW	FAO, pro-WEAI
	Decision-making power over land use and resource management	GrOW, GCP CMF	Mello & Schmink 2016
	Kind of assets over which a woman has full decision-making power	CARE SII	No source identified
	Ability to make program-relevant decisions regarding the purchase, sale, or transfer of assets (small and large)	DCED PSD	World Bank. Gender in Agriculture, WEAI (Alkire and others 2013), CIDA Gender Sensitive Indicator Guide.
	Currently has access to productive assets, e.g., land and live-stock, machinery, tools of the trade	WOW	pro-WEAI
	Currently owns digital assets	WOW	WB Global Findex, MICS

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Control over productive assets (continued)	Control over the processes surrounding loan procurement and loan use	GrOW	Garikipati 2013; Weber & Ahmad 2014; Ganle et al. 2015
	Women's decision-making role in own business	UNF	Adapted from Kenya Female Enterprise Survey (2013).
	Input in productive decisions	pro-WEAI, WOW	Malapit and others (2019)
	Control over use of income	Pro-WEAI	Malapit and others (2019)
	Woman's decision-making role in her own or family farm	UNF	Adapted from USAID Sudan Food, Agribusiness, and Rural Markets (FARM) Project
	Adopted improved business or farming management practices	WOW	
	Control over household assets (typically 5 items listed)	Oxfam WEI	WEAI (Alkire and others 2013)
Increased financial independence/autonomy	Economic dependence on husband	GrOW	Ganle et al. 2015
	Control over household assets and income	GrOW	Garikipati 2008; Mahmud et al. 2012; Weber & Ahmad 2014
	Has separate savings/financial assets from husband (Y/N)	J-PAL	Glennerster and others (2018)
	Autonomy in income/Control over income	pro-WEAI	Malapit and others (2019)
	Control over own income use	GrOW, GCP CMF	Mahmud & Tasneem 2014; Breuer & Asiedu 2017
	Control over personal decisions	OPHI ICI	Ibrahim and Alkire (2007)
	Options for divorce	J-PAL	Glennerster and others (2018)
	Has separate savings/financial assets from husband (Y/N)	J-PAL	Glennerster and others (2018)
	Woman has control over personal decisions related to finances/income (Y/N)	WGMM	Ibrahim and Alkire (2007)
	Rural woman with autonomy in agriculture (Y/N)	WGMM	WEAI (Alkire and others 2013)

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Absence of stress/ economic well-being	Stress and worry	J-PAL	Glennerster and others (2018)
	Life satisfaction/happiness	UNF, MWEE	Adapted from UNICEF, Multiple Indicator Cluster Survey (MICS), October 2013.
	Woman's stress level	UNF	Adapted from U.S. National Center for Health Statistics, NHANES Study
Leadership roles	Leadership positions in community	MWEE, Oxfam WEI, GCP CMF	Ipsos Public Affairs (2018)
	Rural woman in leadership role with decision-making power on agriculture (Y/N)	WGMM	WEAI (Ibrahim and Alkire 2007)
Self-confidence/ self-esteem	Self-confidence and assertiveness	GrOW, UNF, MWEE, DCED PSD, Oxfam WEI	Adapted from World Bank, Sri Lanka Female Enterprise Survey (2009-2011) and Kenya Female Enterprise Survey (2013); Ganle et al. 2015
	Self-esteem (e.g., Rosenberg Self-Esteem Scale)	GrOW, J-PAL, UNF	Mahmud et al. 2012, Glennerster and others (2018)
	Self-efficacy (e.g., Bandura scale. New General Self-Efficacy scale)	J-PAL, MWA, MWEE, pro-WEAI, Care SII, GrOW, OPHI ICI	Ibrahim and Alkire (2007), Malapit and others (2019), Glennerster and others (2018)
	Reports self-esteem and self-confidence	WOW	pro-WEAI
	Improved self-esteem that has enabled her to increase business risk-taking	WGMM	Adapted from Buvinic and Furst-Nichols (2015)
INDIVIDUAL FACTORS			
Health	Decision-making power on healthcare (i.e. own healthcare, family planning, where a baby will be delivered, HIV testing)	GrOW, J-PAL	Kuhlmann et al. 2017; Multiple J-PAL studies, Glennerster and others (2018)
	Man believes he should attend the birth of his children (Y/N)	WGMM	Herbert (2015)
	Woman approves of family planning (Y/N)	WGMM	Priya and others (2014)
	Woman knows contraceptive method, by specific method (Y/N)	WGMM	DHS

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Health (continued)	Currently using modern contraception (Y/N)	WOW	DHS
	Number of meals consumed in the last 7 days	WOW	World Food Program
	Adolescent girl aged 15-19 gave birth in the last year (Y/N)	WGMM	Family Planning 2020 (2016)
	Youth trained as a peer educator in sexual and reproductive health (Y/N)	WGMM	MEASURE Evaluation (2020)
	Adolescent involved in the design of materials and activities and in the implementation of a program on sexual and reproductive rights (Y/N)	WGMM	MEASURE Evaluation (2020)
	Woman making use of right to access sexual and reproductive health (Y/N)	WGMM	Alsop and Heinsohn (2005)
	Health center teaches good menstrual hygiene management in their reproductive health clinics (Y/N)	WGMM	Save the Children (2020)
	Girl has improved knowledge of an attitudes of MHM	WGMM	Plan International (2015)
	Girl reports lack of privacy or feeling unsafe when using the sanitary facilities at school (Y/N)	WGMM	Fancy and McAsian Fraser (2014)
Education	Literate (age 15 and above)	WOW	UNESCO Institute of Statistics
	Access to education	GrOW	Mahmud et al. 2012; Ghimire et al. 2015
	Individual educational attainment	CARE SII, MWEE	No source identified
	Acquired new knowledge or skills	WOW	
	Knowledge, skills, and abilities	MWEE, J-PAL, CARE SII	MEASURE Evaluation (2020)
	Rural woman has access to new agricultural technologies, resulting in increased crop value (Y/N)	WGMM	AusAID (2011)
	Feels she has the right to invest in her own work-related skills	WOW	pro-WEAI
	Knowledge of legal rights and mechanisms	Oxfam WEI, CARE SII	Oxfam impact evaluation in Lebanon
	Understands employment rights	WOW	
Willingness to take risks, optimism, determination	Woman's willingness to take risk	UNF	2012 STEP Household Questionnaire, Lao PDR (World Bank)
	Willingness and knowledge to take legal action if required (responses to three questions)	Oxfam WEI	Oxfam impact evaluation in Lebanon
Soft skills (e.g., teamwork)	(No indicators in M&E tools)		
Work experience	Applying acquired knowledge or skills	WOW	

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Personal access to networks	Social connectedness through professional networks	GrOW, pro-WEAI, J-PAL	Breuer & Asiedu 2017; Sanyal 2009; Malapit and others (2019); Glennerster and others (2018)
	Woman's intensity of mobile phone use	UNF	Adapted from Booz&Co and others (2012)
Participation in women's advocacy organizations, cooperatives and labor unions	Women's participation in community groups/associations/networks	GrOW, MWEE, J-PAL, pro-WEAI, CARE SII, UNF, Oxfam WEI	Sanyal 2009; Kuhlmann et al. 2017; Dutt & Grabe 2017; Ethiopia Farmer Innovation Fund Impact Evaluation (2012), Malapit and others (2019), Glennerster and others (2018)
	Currently participating in institutional decision-making and/or formal/informal business-related association	WOW	
	Member of a formal or informal group (Y/N)	WGMM	WEAI (Alkire and others 2013)
	Rural woman participating in farmers' association (Y/N)	WGMM	Golla and others (2011)
	Engaged in training or networking (Y/N)	WGMM	Ibrahim and Alkire (2007)
HOUSEHOLD FACTORS			
Division of household work and child/elder care	Number of hours spent in housework	J-PAL	Glennerster and others (2018)
	Sharing of housework between spouses/partners	UNF	Adapted from ICRW International Men and Gender Equality Survey (IMAGES) Questionnaire
	Household has experienced a shift in the allocation of household labor and so can devote more time to enterprise development	WGMM	Adapted from Buvinic and Furst-Nichols (2015)
Bargaining power inside the household	Contribution to household income (% of household's total income contributed by respondent)	Oxfam WEI	No source identified
	Woman is reported to be the head of the household (Y/N)	WGMM	World Bank: Gender Data Portal
	Respect within the household	pro-WEAI	Malapit and others (2019)

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Bargaining power inside the household (continued)	Has input into household productive decisions concerning her own income, how income is spent, major household expenses, childbearing, children's education	WOW	pro-WEAI
	Household bargaining power	GrOW	Garikipati 2008; Ashraf et al. 2010; Desai & Andrist 2010; Mahmud et al. 2012; Luke et al. 2014; Weber & Ahmad 2014; Ganle et al. 2015; Crandall et al. 2016; Majlesi 2016; Mishra & Sam 2016; Sebert Kuhlmann et al. 2017
	Feels that she can make her own decisions (if they so desire) regarding their own income, how household income is spent, major household expenses, childbearing, children's education	WOW	IPUMS-DHS, pro-WEAI
	Has input into household productive decisions	WOW	IPUMS-DHS, pro-WEAI
Ability to make or participate in decisions about household expenditure	Main decision maker with respect to family decisions	MWA, OPHI ICI, J-PAL, UNF, MWEE, Oxfam WEI	Widely used (e.g., DHS), Glennerster and others (2018)
	Decision-making power across multiple domains, using the Women's Empowerment in Agriculture Index (WEAI) (i.e. production, productive resources, income, leadership, and time use)	GrOW, pro-WEAI	WEAI (Alkire et al. 2013). Malapit and others (2019)
	Household decision making, degree of influence (if not made by respondent)	Oxfam WEI	No source identified

LAWS, REGULATIONS AND POLICIES

Property rights	Laws that protect women's property rights	MWEE, CARE SII	No source identified
	Adoption of explicit laws or clauses in existing legislation that reduce or eliminate gender discrimination in land rights	WGMM	Sida (2015)
	Rural woman hold land titles (where appropriate, disaggregated by caste, ethnicity, disability)	WGMM	Sida (2015)
	Household with joint ownership of property and productive assets (Y/N)	WGMM	Alsop and Heinsohn (2005)
Absence of gender discrimination in legal codes and regulations	Laws supporting women's rights, access to resources, and options	CARE SII	No source identified
	Enforcement of human rights	CARE SII	No source identified

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Protection against violence and sexual harassment	Experienced physical, sexual or emotional violence committed by husband/partner in last 12 months	WOW	DHS, MICS
	Women's attitudes about intimate partner violence, using DHS survey data or question set	GrOW, pro-WEAI	Yount and Li 2009 and 2010; Pierotti 2013; Crandall et al. 2016; Kuhlmann et al. 2017; Malapit and others (2019)
	Incidence of intimate partner violence	DfID_VAWG, GrOW, DCED PSD, MWEE, CARE SII, Oxfam WEI	Bloom 2008; Villarreal 2007; Rocca et al. 2009; Ghimire et al. 2015; Grabe et al. 2015; Kotsadam et al. 2016; Miedema et al. 2016; Haile et al. 2012, Mahmud & Tasneem 2014
	Number of times gender-based violence occurred within the household during the last 12 months	Oxfam WEI	No source identified
	Community attitudes on women and violence	Oxfam WEI	No source identified
Equal right to start and operate a business	(No indicator in M&E tools)		
SOCIAL NORMS			
Attitudes toward gender roles	Age at first marriage	WOW	DHS, MICS
	Social norms and stereotypes around women's economic roles (both women's and men's perceptions, same examples)	Oxfam WEI	No source identified
	Gender norms indicating men as heads of household and primary decision-makers	GrOW, CARE SII, J-PAL	Orso & Fabrizi 2015; Bonilla et al. 2017, Glennerster and others (2018)
	Gender norms indicating belief that women should have the right to spend their own money how they want	WGMM	Overseas Development Institute (2015)
	Has gender-equitable attitudes on women and paid work outside the home, including non-traditional work, by gender	WOW	
	Parents' attitudes about women working	J-PAL	Glennerster and others (2018)
	Believes that if money is scarce, girls and boys should have equal priority to remain in school, by gender (Y/N)	WGMM	Overseas Development Institute (2015)
	Control over spouse selection and marriage timing	J-PAL	Glennerster and others (2018)

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Women's freedom of mobility	Freedom of mobility	GrOW, J-PAL, MWEE, CARE SII, Oxfam WEI	Sanyal 2009; Mahmud et al. 2012; Mahmud & Tasneem 2014; Weber & Ahmad 2014; Ganle et al. 2015; Orso & Fabrizi 2015; Crandall et al. 2016; Glennerster and others (2018)
	Has right to leave the house without husband's permission	WOW	IPUMS-DHS, World Bank WBL
	Has gender equitable attitudes on women and mobility, by gender	WOW	IPUMS-DHS
	Regularly visits important locations	pro-WEAI	Malapit and others (2019)
ECONOMIC/JOB MARKET FEATURES			
Availability of paid work	Currently participating in the labor force	WOW	ILO, WDI
	Participation in economically productive activities	MWEE	Ipsos Public Affairs (2018)
	Woman reports being underemployed	WGMM	Rao (2016)
Ability to work in male-dominated occupations	Sector of employment (e.g., agriculture, services)	WOW	ILO
	Currently working in a non-traditional occupation	WOW	ILO, DHS
Absence of discrimination in wages and benefits	(No indicators in M&E tools)		
General business environment	(No indicators in M&E tools)		
Women's access to business and financial services	Access to financial services: Participation in formal and informal financial services	J-PAL, pro-WEAI, GCP CMF	Glennerster and others (2018), Malapit and others (2019)
	Has access to formal financial products and services	WOW	WB Global Findex
	Business owner with access to formal financial products and services	WOW	WB Global Findex
	Woman has accessed formal credit sources over the last year	WGMM	Alsop and Heinsohn (2005)
	Rural woman has access to credit (Y/N)	WGMM	WEAI (Alkire et al. 2013).
	Whether woman has accessed credit for food production (Y/N)	WGMM	Brown and others (2009)
	Member of a microfinance group (Y/N)	WBMM	Rao (2016)
Women's access to markets	(No indicators in M&E tools)		

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Framework Element or Dimension	Indicator	M&E Tool(s) Using Indicator	Indicator Source
Availability of infrastructure	Woman's intensity of mobile phone use	UNF	Adapted from Booz&Co and others (2012).
	Business owner/farmer currently using digital technology to access work-related information	WOW	
	Media exposure	GrOW	Yount 2005; Mahmud et al. 2012; Orso & Fabrizi 2015
	Number of hours saved using improved water and sanitation services	WGMM	Sida (2015)
	Attends meetings of a community water users' group (Y/N)	WGMM	Rao (2016)
Social capital	Social capital (i.e. the ability and tendency to offer or draw on help in the event of personal problems and to address public problems in the community)	GrOW	Sanyal 2009; Kuhlmann et al. 2017

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