

Indicators of Women's Empowerment in Developing Nations

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TABLE OF CONTENTS

List of Tables	vi
Foreword.....	vii
Acknowledgments.....	viii
Executive Summary	ix
Introduction.....	1
I. Overview of Gender-Sensitive Indicators	2
Quantitative and Qualitative Indicators	2
Indicator Categories.....	3
Data Collection and Interpretation.....	3
Indices.....	5
II. Dimensions.....	6
A. Economic Contribution.....	6
<i>Economic Contribution: Measurement.....</i>	<i>7</i>
<i>Economic Contribution: Characteristics of Indicators</i>	<i>8</i>
<i>Economic Contribution: Data Accuracy and Reliability.....</i>	<i>8</i>
<i>Economic Contribution: Effectiveness at Measuring Women’s Empowerment</i>	<i>9</i>
B. Education.....	9
<i>Education: Measurement.....</i>	<i>10</i>
<i>Education: Characteristics of Indicators</i>	<i>10</i>
<i>Education: Data Accuracy and Reliability.....</i>	<i>11</i>
<i>Education: Effectiveness at Measuring Women’s Empowerment</i>	<i>12</i>
C. Governance	12
<i>Governance: Measurement.....</i>	<i>13</i>
<i>Governance: Characteristics of Indicators</i>	<i>13</i>
<i>Governance: Data Accuracy and Reliability.....</i>	<i>14</i>
<i>Governance: Effectiveness at Measuring Women’s Empowerment</i>	<i>15</i>
D. Health.....	15
<i>Health: Measurement</i>	<i>16</i>
<i>Disease and Prevention Indicators.....</i>	<i>17</i>
<i>Environmental Health Indicators</i>	<i>18</i>
<i>Maternal and Infant Health Indicators.....</i>	<i>18</i>
<i>Reproductive Health Indicators.....</i>	<i>19</i>
E. Media	19
<i>Media: Measurement</i>	<i>20</i>
<i>Media: Characteristics of Indicators.....</i>	<i>21</i>
<i>Media: Data Accuracy and Reliability.....</i>	<i>21</i>
<i>Media: Effectiveness at Measuring Women’s Empowerment.....</i>	<i>22</i>

III. Recommendations.....	23
A. Economic Contribution Indicator Recommendations	23
<i>Market Participation: Labor/Workforce Composition.....</i>	<i>24</i>
<i>Market Participation: Productivity Contribution.....</i>	<i>25</i>
<i>Resource Equity: Access to Means for Increasing Economic Capacity.....</i>	<i>26</i>
<i>Resource Equity: Power to Bargain</i>	<i>26</i>
<i>Comparison to U.S. State Department and USAID Economic Indicators... </i>	<i>26</i>
B. Education Indicator Recommendations	27
<i>Adult Literacy Rate for Ages 15 to 24.....</i>	<i>29</i>
<i>School Completion Rates and Fields of Study.....</i>	<i>30</i>
<i>Percentage of Female Teachers</i>	<i>30</i>
<i>Gross School Enrollment Ratio</i>	<i>31</i>
<i>Percentage of Schools with Separate Latrines</i>	<i>31</i>
<i>Distance to School</i>	<i>31</i>
<i>Comparison to U.S. State Department and USAID Indicators</i>	<i>32</i>
C. Governance Indicator Recommendations.....	32
<i>Gender-Responsive Budgeting.....</i>	<i>34</i>
<i>Representation Indicators.....</i>	<i>34</i>
<i>Legislation on Domestic Violence Indicator</i>	<i>34</i>
<i>Comparison to U.S. State Department and USAID Indicators</i>	<i>34</i>
D. Health Indicator Recommendations.....	35
<i>Presence of Skilled Attendant at Birth.....</i>	<i>36</i>
<i>DTP3 Immunizations</i>	<i>36</i>
<i>Contraception Prevalence</i>	<i>37</i>
<i>Access to Sanitation and Clean Water.....</i>	<i>37</i>
<i>Prevalence of HIV among 15- to 24-Year-Olds.....</i>	<i>37</i>
<i>Comparison to U.S. State Department and USAID indicators.....</i>	<i>38</i>
E. Media Indicator Recommendations.....	38
<i>Equal Treatment of Media Employees.....</i>	<i>38</i>
<i>Equal Coverage in News Reporting.....</i>	<i>39</i>
<i>Equal Expression of Freedom of Speech.....</i>	<i>41</i>
<i>Comparison to U.S. State Department and USAID Indicators</i>	<i>42</i>

IV. Conclusion	43
Appendix A: Indices	44
Appendix B: Economic Contribution Indicators	45
Appendix C: Education Indicators.....	53
Appendix D: Governance Indicators	57
Appendix E: Health Indicators.....	59
Appendix F: Media Indicators	67
Appendix G: Watch List Indicators	73
References.....	75
Introduction, Appendices A, G.....	75
Economic Contribution.....	76
Education	80
Governance	82
Health.....	83
Media	84

LIST OF TABLES

Table 1. Indicator Count of Dimensions and Categories	6
Table 2. Recommended Gender-Sensitive Economic Contribution Indicators	23
Table 3. Recommended Economic Contribution Indicators and Comparable USAID Gender-Sensitive Indicators for Economic Growth/Trade- Related Activities	27
Table 4. Recommended Gender-Sensitive Education Indicators	28
Table 5. Recommended Gender-Sensitive Governance Indicators	33
Table 6. Recommended Gender-Sensitive Health Indicators	35
Table 7. Recommended Gender-Sensitive Indicators, Equal Treatment of Media Employees	39
Table 8. Recommended Gender-Sensitive Indicators, Equal Coverage in News Reporting	40
Table 9. Recommended Gender-Sensitive Indicators Equal Expression of Freedom of Speech	41
Table A-1. Common Gender-Equality Indices	44
Table B-1. Market Participation: Income Distribution	45
Table B-2. Market Participation: Labor and Workforce Composition	46
Table B-3. Market Participation: Productivity Contribution	47
Table B-4. Resource Equity: Access to Means for Increasing Economic Capacity	48
Table B-5. Resource Equity: Power to Bargain Indicators	50
Table C-1. Educational Characteristics of the Population Indicators	53
Table C-2. Educational System Indicators	53
Table C-3. General Education Indicators	53
Table D-1. Political Representation Indicators	57
Table D-2. Electoral System and Processes Indicators	57
Table D-3. Justice Indicators	58
Table E-1. Access and Utilization of Health Services Indicators	59
Table E-2. Disease and Prevention Indicators	59
Table E-3. Environmental Health Indicators	60
Table E-4. Fertility and Population Growth Indicators	60
Table E-5. Health-Care Management Indicators	60
Table E-6. Health Expenditures Indicators	60
Table E-7. Maternal and Infant Health Indicators	61
Table E-8. Mental Health and Risk Behaviors Indicators	61
Table E-9. Nutrition Indicators	61
Table E-10. Reproductive Health Indicators	61
Table E-11. Violence against Women Indicators	62
Table F-1. Equal Expression of Freedom of Speech Indicators	67
Table F-2. Equal Coverage in News Reporting Indicators	71
Table F-3. Equal Treatment of Media Employees Indicators	72

FOREWORD

The La Follette School of Public Affairs at the University of Wisconsin–Madison offers a two-year graduate program leading to a Master of Public Affairs or a Master of International Public Affairs degree. In both programs, students develop analytic tools with which to assess policy responses to issues, evaluate implications of policies for efficiency and equity, and interpret and present data relevant to policy considerations.

Students in the Master of International Public Affairs program produced this report. The students are enrolled in the Workshop in International Public Affairs, the capstone course in their graduate program. The workshop challenges the students to improve their analytical skills by applying them to an issue with a substantial international component and to contribute useful knowledge and recommendations to their client. It provides them with practical experience applying the tools of analysis acquired during three semesters of prior coursework to actual problems clients face in the public, non-governmental, and private sectors. Students work in teams to produce carefully crafted policy reports that meet high professional standards. The reports are research-based, analytical, evaluative, and (where relevant) prescriptive responses for real-world clients. This culminating experience is the ideal equivalent of the thesis for the La Follette School degrees in public affairs. While the acquisition of a set of analytical skills is important, it is no substitute for learning by doing.

The opinions and judgments presented in the report do not represent the views, official or unofficial, of the La Follette School or of the client for which the report was prepared.

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EXECUTIVE SUMMARY

International organizations focus on gender equality as a major priority in development interventions due to the direct impact gender-sensitive policies have on economic development, higher education achievement, and better quality of life within a country or region. There is an increasing need for effective techniques to measure progress of such interventions and maintain gender equality as a main concern in international development.

This report identifies, evaluates, and recommends gender-sensitive indicators across five dimensions: economic contribution, education, governance, health, and media. In Section I, we provide an overview of gender-specific indicators and their importance. These indicators allow for precise analysis of gender inequalities, which increases the ability of policymakers to target specific areas of women's empowerment. We categorize indicators by type, such as quantitative and qualitative as well as input, output, structure, and process.

In Section II, we evaluate indicators based on methodology of measurement, data accuracy and reliability, and effectiveness at measuring women's empowerment for each dimension. Although each type of indicator has strengths and weaknesses, general limitations of gender-sensitive indicators include poor data collection techniques, lack of standardization of data, and limited availability of data.

Finally, in Section III, we recommend gender-sensitive indicators for each dimension and briefly compare these recommended indicators to the available information of relevant U.S. Agency for International Development gender-sensitive indicators. Overall, this report identifies 581 gender-sensitive indicators across the five dimensions. After evaluating identified indicators, we recommend the use of 37 indicators: nine economic contribution indicators, seven education indicators, seven governance indicators, five health indicators, and nine media indicators.

INTRODUCTION

Women's empowerment and the movement toward gender equality is a modern phenomenon that continues to develop around the world. After World War II, international treaties put great focus on human rights; however, as time progressed, it became clear that special attention must be given to women's rights. Therefore, beginning in the 1970s, advocates lobbied for women's rights at greater lengths. Issues such as feminization of extreme poverty and disparities in politics, education, and wealth served as the justification for explicit support and recognition of women's empowerment. The Beijing Declaration and Platform for Action in 1995 initiated a move to focus on women's empowerment. Drawing attention to women's participation in all realms of society, the document addressed gender inequality gaps in pursuit of guaranteeing women's rights. In 2000, the Millennium Development Goals furthered the campaign for women's rights in areas such as education, health, and poverty.

Women's empowerment, a major goal of many development projects, formed a basis to foster growth, reduce poverty, and promote better governance (Malhotra et al. 2002). Numerous government and non-government agencies, including the United Nations, World Bank, U.S. Agency for International Development (USAID), Pan-American Health Organization, Freedom House, World Health Organization, and Canadian International Development Agency are leaders in women's empowerment projects. These agencies use indicators to assess the status of women, evaluate interventions, and assess policy options for development. As indicators are often not standardized across agencies, a survey of existing indicators and an analysis of their efficiency can help streamline efforts to assess women's empowerment.

This report analyzes women's empowerment by examining indicators categorized in five dimensions: economic contribution, education, governance, health, and media. Each dimension is divided into subcategories of pertinent indicators. Due to substantial differences across dimensions, our analysis varies by dimension based on the scope and types of indicators. In Section I, we provide an overview of gender-sensitive indicators and characteristics of indicators used by various agencies. In Section II, we evaluate indicators based on their significance, methodology of measurement, data accuracy and reliability, and effectiveness at measuring women's empowerment for each dimension. Finally, in Section III, we recommend indicators for each dimension and compare them to indicators used by USAID and the U.S. State Department.

I. OVERVIEW OF GENDER-SENSITIVE INDICATORS

As a measure of change in conditions over time, gender-sensitive indicators capture existing differences between genders. Based on the codification of these differences, efforts to empower women (e.g., create equal access to resources and improve opportunities in society) can be measured (Jafer 2009). More specifically, indicators allow for qualitative descriptions and quantification of differences between genders, thereby providing the basis for women's empowerment interventions. By measuring progress using benchmarks, indicators can highlight areas that benefit from improved allocation of resources. Indicators also permit efficient, empirical assessment of existing policies and hold institutions and countries accountable by illustrating gaps between commitments and actual program outcomes.

Quantitative and Qualitative Indicators

An indicator is a single figure that summarizes a large amount of information while providing an indication of change over time, often the amount of progress toward a specific goal. Unlike mere descriptive statistics, indicators involve comparisons to a norm or baseline in their interpretation (Moser 2007). Indicators can be quantitative or qualitative, a distinction based on information type, use, and interpretation (Beck 1999). Quantitative indicators measure quantifiable results, such as school enrollment rates or percentage of women in parliament. Qualitative data show differences that cannot be described numerically, such as differences in quality levels of policies. Both quantitative and qualitative indicators can measure gender differences with two general approaches. One is to measure distinctions between males and females only (e.g., the number of girls enrolled in school compared to boys). The other is to assess the impact of gender equality on overall well-being of population, as gender inequality affects not only individual women, but society as a whole (Klasen 2004).

Quantitative data is often drawn from censuses, administrative records, and other large-scale surveys (CIDA 1997). This straightforward approach is widely used by agencies as it standardizes measurements of change at the international level, making specific comparisons across countries possible (Moser 2007). Manipulating the way in which an indicator is measured can demonstrate different degrees of monitoring and reporting which may result in different interpretations of intervention effectiveness.

Quantitative indicators, however, are insufficient at reflecting all changes in gender-related outcomes. Qualitative indicators permit more in-depth examination of social processes, social relations, power dynamics, and gender equity. These indicators capture perceptions, opinions, and experiences. They can be collected through focus groups, social mapping, interviews, and surveys (Moser 2007). These methods ensure that marginalized views and personal experiences of women, which are not captured by quantitative methods, are taken into account. Qualitative analysis also helps explain how opportunities for women arise and

how gender roles evolve (Beck 1999). As qualitative indicators often are subjective and opinion-based in nature, they are more difficult to standardize and record than quantitative indicators. Ideally, quantitative and qualitative indicators should complement each other.

Indicator Categories

As both quantitative and qualitative indicators reflect data from various points throughout the life course of a policy, many different types of indicators exist, distinguished by the time of their collection. *Input* indicators describe elements used to start an intervention, *output* indicators describe products of an ongoing intervention, and *outcome* indicators describe products that result from a completed intervention. *Structure* indicators describe conditions directly related to an outcome but not part of the intervention. *Process* indicators describe application and quality of a policy (Australian Institute of Health and Welfare 2009).

Benchmarks and reference points are indicators and goals that serve as measures of program implementation progress and success. At predetermined points in time, progress—in the form of output indicators—is compared to a benchmark to measure program efficacy. Reference points illustrate progress, but data are compared to previous measurements instead of desired targets. Benchmarks and reference points can be quantitative or qualitative. Depictions formulated by women of how they envision empowerment and target numbers of women obtaining a specific outcome serve as examples of qualitative and quantitative goals, respectively (Moser 2007).

The U.S. State Department and USAID further categorize foreign assistance indicators into three levels: strategic, program area, and element. *Strategic* indicators come from secondary, nongovernmental sources (e.g., World Bank or United Nations) and broadly measure results of government interventions. *Program area* indicators address the performance of an individual country in specific subsectors and measure results from multilateral interventions. *Element* indicators measure outputs and outcomes from U.S. government interventions in other countries using data collected by those implementing the policy (U.S. State Department 2006).

Overall, the indicators USAID uses tend to be program area indicators, collecting detailed country and sub-country data to monitor specific projects. USAID often customizes its evaluation of gender-equality progress and use of indicators according to individual countries.

Data Collection and Interpretation

National censuses and large-scale, household-based surveys are the most common sources for gender-sensitive indicators and are primarily collected by national statistics offices (UNDP and UNIFEM 2009). Although collecting data through

these means allows for disaggregation based on characteristics such as gender, income, and education, appropriate sample size and collection procedures must be ensured for data accuracy. Moreover, censuses and surveys are not usually performed annually, so their data are not always current. Data from local organizations (e.g., health facility reports and other administrative records) can supplement censuses and surveys to ameliorate these limitations; however, variation in the accuracy and reliability of self-reported and organizational data can be high. Also, despite the fact that organizational-level data are often readily available, they are usually not disaggregated by sex. Health-care facilities usually collect the sex of the staff members and patients, but publication of this data is usually not disaggregated by sex (Corner 2009).

Additional limitations of gender-sensitive data arise from lack of standardization in collection and measurement. With subjective interpretation of indicators and many possible definitions of gender-sensitive terms, the likelihood of variation across and within countries is high. Likewise, bias in responding to gender-sensitive topics should be considered. The use of surveys to collect gender-sensitive information may be problematic as men often respond on behalf of women. Furthermore, with attention to gender-sensitive topics proliferating in recent years, databases may predate the use of gender-sensitive indicators, therefore limiting longitudinal analysis of gender-sensitive trends (Scott and Wilde 2006).

Data measurement methods should be consistent, yet sensitive enough to capture change. For example, indicators may monitor percentage changes (e.g., female and male youths enrolled in secondary education) as opposed to averages (e.g., children in household) (Curry 2002; Tayyib et al. 2013). More importantly, an indicator's sensitivity should ideally be chosen to ensure that it is transferrable from one population to another. And, the choice of reference group should match as precisely as possible to the representation of data described by an indicator. For example, years of education achieved by women can be compared to historical data on achievement in the same country, current levels of achievement by men in the country, average achievement by women in the geographical region, or gender-neutral global rates of achievement.

Our evaluation of indicators in Section II takes into account accuracy and reliability of the data source. Accuracy describes an indicator's ability to capture and represent reality. Reliability pertains to precision of data collected and the ability to replicate an indicator's results when the collection method is applied across different populations. In Section II, we also analyze effectiveness of indicators in measuring women's empowerment for each dimension. We analyze the effectiveness of identified gender-sensitive indicators at reflecting overall empowerment of women.¹ To give a comprehensive view of the difficulties

¹ For example, an indicator may be able to capture the number of women with asthma, but generalization of data from this indicator does not offer an accurate or holistic picture of the relationship between environment and women's health.

associated with capturing empowerment, we offer an explicit consideration of advantages and limitations of indicators.

Indices

Aggregations of categorized indicators form indices. Indices, like indicators, are based on data and measure progress (Morse and Tollner 2007). Constructed as a mathematical model, indices rely on complex calculations using statistical tools. Indicators are weighted depending on their importance: indicators considered of higher importance receive more weight and those of lesser importance receive less weight. Experts determine weighted values of aggregate indicators based on societal values, objective factors, and the indicator's relevance to poverty (Pintér 2013).

Government agencies and international organizations develop indices to make large-scale comparisons across countries. Simplifying complex data and offering standardized methods for comparison, indices are especially useful in helping policymakers and the public understand a nation's level of development. Indices typically compare performance across countries on a wide range of issues. Examples include the Human Development Index, developed by the United Nations Development Programme (UNDP); the Gender Equity Index, developed by Social Watch; and the Global Gender Gap Index, developed by the World Economic Forum (Morse and Tollner 2007). For a list of common indices, see Appendix A.

Indices are subject to misconceptions because they can convey misleading information based on poor development of methodology or poor communication of measurements (Pintér 2013). Additionally, because indices aggregate indicators, the scope of a measurement can be too broad, making it difficult to recommend specific policy decisions or measure women's empowerment. Overall, while indices include some gender-sensitive indicators, the weight that these indicators are given in the overall calculation is often unknown, causing the overall gender sensitivity of an index score to be ambiguous.

II. DIMENSIONS

As women’s empowerment is a vast field with a myriad of indicators, we focus on its prominent dimensions. Specifically, we analyze five dimensions of women’s empowerment: economic contribution, education, government, health, and media. Each dimension is divided into categories of indicators used by national and international agencies. A summary of this information is in Table 1.

Table 1. Indicator Count of Dimensions and Categories

Dimension	Category	Number of Indicators
Economic Contribution	Market Participation	90
	Resource Equity	122
Education	Characteristics of Population	9
	Educational System	7
	Other	2
Governance	Representation	16
	Electoral System and Processes	11
	Justice	19
Health	Access and Utilization of Health Services	14
	Disease and Prevention	16
	Environmental Health	4
	Fertility and Population Growth	12
	Health-Care Management	5
	Health Expenditures	6
	Maternal and Infant Health	12
	Mental Health and Risk Behaviors	5
	Nutrition	9
	Reproductive Health	9
	Violence against Women	6
Media	Equal Treatment of Media Employees	48
	Equal Coverage in News Reporting	37
	Equal Expression of Freedom of Speech	122
Total		581

Source: Authors

The following sections of the report describe each dimension by explaining: (1) the significance of its respective indicators, (2) methodology of measurement generally employed by organizations, (3) unique characteristics of respective indicators, (4) accuracy and reliability of data used, and (5) effectiveness of the overall measurement in terms of women’s empowerment.

A. Economic Contribution

Gender-sensitive economic indicators reveal human capital utilization gaps and market inefficiencies. With women representing one-half of human capital, limiting the ability of women to contribute impedes economic growth (Hausmann et al. 2012) in local and regional markets and macroeconomic levels (Elson et al. 1997; FIAS/IFC GEM 2005; Randriamaro 2006). A study of sub-Saharan African and East Asian countries shows gender inequality accounts for 15 to 20 percent of differences in cross-national economic growth performance (Klasen 1999; Randriamaro 2006).

Ensuring women have equal access to financial and development opportunities empowers women, expedites progress toward gender equality, and can translate into improved national and international economic efficiency (World Bank 2012). Many theories on economic development and gender equality agree that a “simultaneous relationship” exists between economic growth and women’s empowerment (Slusser 2009).² General progress in economic development correlates well with progress in women’s empowerment, and spillover effects from gender-economic equality are positive for both the economy and women’s empowerment. Only with interventions in the economic dimension do such direct spillover benefits exist (USAID 2013). Moreover, gender-equality progress along different dimensions can be observed through economic indicators.

These economic indicators draw attention to policy shortcomings and ultimately help promote gender equality (Jafer 2009). Equal access to economic opportunities allows women to emerge as actors in other dimensions of society and can help shape more inclusive policies across all dimensions (World Bank 2012). For example, a low labor participation rate for girls may correlate strongly with a high primary education attainment rate. Economic connectivity among dimensions of empowerment allows economic indicators to monitor women’s empowerment across different dimensions. This transferability often allows a single economic indicator to demonstrate progress of women’s empowerment under different contexts and frames of references.

We identified 212 individual indicators on the economic contribution dimension: 90 for the category of market participation and 122 for resource equity.³ A listing of the specific indicators is in Appendix B.

Economic Contribution: Measurement

Governments routinely collect standardized and demographically disaggregated economic data, allowing for comparisons within and across countries. Standardized global economic data also support national and cross-national measurement of gender gaps, allowing for results in national and global descriptions of women’s economic empowerment, regardless of a country’s level of economic development (Hausmann et al. 2012).

The dimension of economic contribution describes women’s empowerment as increasing economic productivity in two key categories. The first, market participation, explains women’s influence on global and local markets by focusing on gender equality and its relationship to remuneration, contribution allocation, and limitations on market involvement. Indicators in the market

² Examples of gender development theories include: women in development (1970s); gender in development (1980s); structural adjustment programs (mid-1980 to 1990s); and the neoclassical approach. These theories are developed based on strong correlations between women and economic development (Slusser 2009).

³ Agencies may choose to employ multiple reporting methods under one indicator, such as female versus male “income difference” versus “income gap.” This report presents both reporting methods as one single indicator.

participation category are further divided into three subcategories: income distribution, which demonstrates women's financial and economic power; workforce composition, which includes labor and entrepreneurial opportunities for women; and productivity contribution, which describes women's production level in formal and informal markets.

The second category in which women's empowerment increases economic productivity is resource equity. For this category, inequity in assets and resources between genders depicts differences in terms of access and power to bargain. Equitable access to resources and women's power to bargain for them can lead to more efficient distributions of economic development opportunities for the overall population (Elson et al. 1997; Klasen 1999; Randriamaro 2006). Two subcategories make up the resource equity category: access to means for increasing economic capacity and power to bargain. Indicators in the first subcategory measure aspects of structural support (e.g., existing institutions and laws) that allow women to expand their economic capacity. Power to bargain indicators measure women's freedom in economic decision making by removing barriers that prevent women from bargaining for resources, endowments, and other economic opportunities (World Bank 2012).

Economic Contribution: Characteristics of Indicators

Economic indicators in the market participation category embody characteristics of traditional econometrics: often the difference between econometrics and gender-sensitive economic indicators is that the former contains gender-blind data while the latter contains data disaggregated by sex (CIDA 1997; Randriamaro 2006; Waring 1998). Indicators of income distribution have an output or outcome focus. Indicators of labor/workforce composition and productivity contribution are typically input or process indicators because they tend to measure current opportunity and market structure.

Agencies with the purpose of understanding gender roles and qualitative relations of unequal powers developed most indicators in the resource equity category. These indicators also increased focus on women's empowerment through economic control and decision-making opportunities (CIDA 1997; Randriamaro 2006; Waring 1998). The subcategories of access to means and power to bargain contain mostly input and process indicators that measure availability and opportunity for women to acquire economic resources. Some indicators in this category are qualitative because their data collection may involve case studies and large-scale surveys that capture relative experience of women in attaining resources.

Economic Contribution: Data Accuracy and Reliability

Economic indicators of the market participation category can be measured reliably due to their long history of data availability and standardization. Macro-level indicators (e.g., aggregate consumption, savings, and investments) can accurately quantify widespread gender-based differences in behavior and avoid bias from cultural norms, which are present in micro-level indicators (Stotsky

2006). Although market participation indicators may be accurate at high levels, they may not demonstrate the same accuracy at local levels. Disparities between urban and rural populations and social subjectivities can skew results by exclusion of, for example, nonmonetary income, unofficial labor status, and unpaid productivity of women (Chant 2006; Hussain and Kirmani 2010; Moser 2007).

Research suggests resource equity indicators are likely more accurate and reliable than market participation indicators. Individual consumption distribution within a household is unequal and dependent on internal bargaining powers (Haddad et al. 1997; Horowitz 2009; Sen 1990). This type of inequality can be captured by gender gap measurement. Additionally, women are disadvantaged in access to economic productivity resources; namely, agriculture, credit, land, and hired or household labor (Boserup 1970; Doss 2001; Gladwin and McMillan 1989; Goetz and Gupta 1995; Goldstein and Udry 2008; Horowitz 2009; Meinzen-Dick et al. 1997; Quisumbing et al. 2001). The attainment of access to these resources expresses economic inputs and, by using resource equity indicators, can be accurately and reliably measured.

Economic Contribution: Effectiveness at Measuring Women's Empowerment

Although researchers agree on overall gender restriction of economic access, they do not all concur on where best to intervene (Gangopadhyay and Wadhwa 2003). Although economic development may offer spillover effects for women's empowerment, its effects on empowerment are hard to capture due to data multicollinearity and complexity. Some cross-national studies show economic globalization reducing gender inequalities and increasing women's status (Forsythe et al. 2000; Meyer 2003; Slusser 2009). Conflicting empirical studies, however, indicate non-significant, negative, or curvilinear relationships (Forsythe et al. 2000; Slusser 2009).

In the market participation category, we find income indicators do not effectively promote gender equality policies, whereas labor composition indicators generally show a better correlation in that regard (Morrison and Jutting 2005; Stotsky 2006). In terms of resource equity, literature shows a generally positive relationship with gender equality, and attributes this correlation with the following summary: better livelihoods allow women to become more independent or even overcome spousal resistance, gain greater ability to make household decisions by power to bargain (Horowitz 2009), and ultimately influence cross-generational gender inequity in the household (Baunach 2001).

B. Education

Indicators of education are among the most important measures of women's status and gender equity. Education equips girls and women with knowledge to make informed decisions about their everyday lives and to gain bargaining power. A mother's education influences her children more than the father's in terms of securing resources (UNFPA n.d.). With higher levels of education, women tend to have lower fertility rates, improved nutrition, and increased use of health services

for themselves and their children (Vos 1996). Additionally, education serves as a predictor of better employment opportunities because educated women participate more in the labor force and earn higher incomes.

We identify 18 gender-sensitive education indicators widely used by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), UNDP, and the World Bank. Among these indicators, nine relate to characteristics of populations, seven describe educational systems, and two measure general education. Appendix C lists a detailed explanation of these indicators.

Education: Measurement

Education indicators measure absolute quantities (e.g., the number of students and teachers) as well as calculated quantities (e.g., percentages, rates, ratios, absolute gender gap, and gender parity index). The absolute gender gap and the gender parity index are widely used by governmental and international organizations to assess gender differences in education (UNESCO 1997).⁴ However, these measurements can lead to misinterpretation of data as the source of data trends may not be readily apparent. For example, the gender gap may narrow through a decline in boys' school enrollment (with the female rate remaining constant), an increase in female enrollment faster than the male rate, or a decline in enrollment of both genders with the male rate declining faster. Therefore, these measurements fail to capture the absolute level of achievement. Countries' averages can mask sub-national variation and overlook disparities among different classes, racial groups, and regional populations.⁵ To capture gender-equity and absolute achievement, UNDP developed a gender-equity-sensitive indicator (UNESCO 1997). A detailed example of a gender-equity-sensitive indicator calculation can be found in Appendix C.

Education: Characteristics of Indicators

Education indicators can be divided into two main categories. The first category is population characteristics, which includes literacy, educational attainment, access to education, and school attendance. The second is educational system measures, which includes enrollment, retention, educational resources, and curricula (Beck 1999). Most gender-sensitive education indicators quantify progress but few indicators measure its quality. Among education indicators, enrollment and literacy rates are most commonly used to measure women's status and progress of women's empowerment.

Each education indicator serves different purposes. Adult literacy rates and average years of schooling indicators measure the aggregate stock of available human capital. School enrollment ratios measure the school system's capacity relative to the population's eligibility to attend. School intake rates reflect the

⁴ Absolute gender gap calculates its score using the male rate minus the female rate, which is influenced by the value of influences of the rates themselves. Gender parity index is the ratio between the female and the male ratios.

⁵ In Guatemala, 45 percent of indigenous girls aged 13 attend school compared to 75 percent of non-indigenous girls (Duryea et al. 2001).

level of access to education. Survival rates, completion rates, repetition, and dropout rates assess internal efficiency of an education system and forecast flows of the education cycle. School life expectancy measures the probability of a child being enrolled in school at any particular age assumed equal to the current enrollment ratio at that age (Central Intelligence Agency 2013). School survival expectancy predicts the number of years of school a child already in school can expect to receive (UNESCO 1997).

All of these indicators benchmark progress, formulate tools for policies toward gender parity and equality in education, and offer a different measure of women's empowerment. For example, the indicator measuring percentage of female teachers can demonstrate female teachers' influential role in supporting young women to pursue their studies. A greater percentage of female teachers could also encourage parents to educate their daughters, especially in countries where women have lower socioeconomic status (UNESCO 2003). On the other hand, the school survival expectancy indicator predicts years of schooling for a child but does not promote women's empowerment. Moreover, a single education indicator may empower women differently depending on what kind of data are measured. For instance, the school completion rate of secondary school levels has greater impact on women's empowerment compared to that of primary school. Furthermore, access to low- quality schools may not increase girls' social mobility or improve occupational discrimination (Saith and Harriss-White 1998). Repetition and dropout rates highlight barriers to girl's education and the inefficiency of education systems.

Education: Data Accuracy and Reliability

Data from gender-sensitive education indicators are often collected from population censuses, household surveys, school surveys, and administrative reporting (UNESCO 1997).⁶ However, some data are more difficult to collect in developing countries while other data are not ideal for international comparisons due to differences in educational systems. Some data collection methods are better developed, but the use of gender-sensitive indicators involves a tradeoff between the accuracy of data and relevance to women's empowerment (Beck 1999). For instance, the gross enrollment ratio overestimates actual enrollment as it does not account for over-aged students and repetition rates. This inaccuracy becomes more problematic in developing countries where repetition rates for girls are often high (Saith and Harriss-White 1998). However, this indicator allows greater opportunity for older girls to obtain education, which may otherwise be neglected using the net enrollment ratio.⁷ Correlations among indicators may differ across countries. For example, an increase in school enrollment rate may correlate with a higher completion rate in one country but not in another.

⁶ Population censuses contain literacy rate and educational attainment data and periodic school surveys contain repetition and dropout rates.

⁷ Gross enrollment ratio measures the school system's capacity relative to the population's eligibility to attend while net enrollment ratio only counts enrollment for the age groups corresponding to the official age group for that level of education (Colclough and Lewin 1993).

Education: Effectiveness at Measuring Women's Empowerment

Education serves as an important instrument for gender-based development and poverty reduction. It increases overall social welfare by improving life expectancy, lowering crime rates, and promoting social cohesion (Luis 2000). Investment in female education is critical for breaking the cycle of poverty and equalizing wealth distribution, which in turn reinforces social stability. With increased education, women have greater access to resources, enhanced opportunity for employment, and improved abilities to make informed decisions about health, marriage, and parenting. Other social benefits (e.g., decline in infant mortality and HIV/AIDS infections and greater education opportunities for children) are positively affected by female education, particularly secondary education. As macroeconomic studies indicate, marginal returns on education of girls are consistently higher than those of boys and are even greater when educational attainment of the next generation is considered (Hill and King 1995; World Bank 2001).

C. Governance

Although women's empowerment improved with the implementation of gender-sensitive policies, governance still lags behind other dimensions. With increasing awareness of the political importance of gender-sensitive economic development and policy reform, decision makers are starting to give considerable attention to the role women play in politics. Moreover, many development agencies and international investors now realize that good governance, which allows democratic reform and promotes transparency, fosters an efficient environment for achieving policy objectives (Arndt and Oman 2006).

Overall, women's participation in the decision-making process is critical when assessing women's empowerment, gender equality, and other developmental goals (IDEA 2005). However, most indicators used at an international level do not even consider gender-sensitivity when measuring governance indicators. For example, UNDP uses a gender-neutral definition of governance: "A system of processes through which citizens and their rulers organize to address and meet their different needs" (Scott and Wilde 2006).

The concept of women's empowerment is embedded in protection of women's rights, which has political and legal implications. Although the concept of women's empowerment is rooted in human rights treaties, the 1995 Beijing Declaration and Platform for Action began a concerted effort to strengthen women's participation in decision-making. The subsequent Millennium Development Goals also intend to promote gender equality by focusing on women's role in governance (Al Maaitah et al. 2011). Due to these strong initiatives toward women's involvement, agencies such as UNDP and the World Bank established indicators to measure the quality of women's development in governance, strengthen the capacity of women to access resources, and offer opportunities to counter a history of oppression and discrimination (Scott and Wilde 2006).

Women's involvement in government influences the policy-making process; it is imperative to hear women's voices to promote and codify their rights (IDEA 2005). The formulation of councils and ministries, as a result of monitoring women's progress through relevant governance indicators, gives women responsibilities for planning, making decisions, recommending policies, and coordinating empowerment efforts. This allocation of responsibility has been useful in initiating adjustments to laws and national plans to include a gender component (Al Maaitah et al. 2011).

In the governance dimension we identify 46 indicators commonly used across agencies. The categorizations include: representation of women, electoral systems and processes, and justice. Representation of women indicators measure women's influence on high-level decision making and treatment of women within the justice system. Electoral systems and process indicators track progressions of women's activities and initiatives made through political and civic engagement. Last, indicators in the category of justice explore issues on women's awareness of their rights, their trust in the justice system, and their access to it (Scott and Wilde 2006). Appendix D lists these indicators and their sources.

Governance: Measurement

Participation and representation indicators measure women's development in terms of their role in the decision-making process as political participation is an activity intended to directly affect government through policymakers (Burns 2002). Similarly, equal rights and freedom indicators measure women's representation and participation within their communities while addressing their specific needs. With involvement of women, more practical and targeted policies dealing with women's issues can be implemented (Al Maaitah et al. 2011). Data sources for gender-sensitive governance indicators are primarily available through opinion and perception surveys, censuses, administrative data, and international organizations.

Governance: Characteristics of Indicators

Quantitative indicators often evaluate the percentage of women in government positions or the ratio of seats held by women in parliament. These indicators track women's participation and political empowerment over time. Qualitative indicators offer the perceptions of women on their representation within governance. Examples include female support of policy initiatives, public sentiment regarding legislation related to gender, and responsiveness of government to women's issues (CIDA 1997).

Scott and Wilde (2006) categorize governance indicators into four areas: disaggregated by sex, gender-specific, implicitly gendered, and chosen by women. Indicators disaggregated by sex allow for comparisons between men and women and illustrates the degree of equality or inequality (e.g., the percentage of registered voters by sex or the percentage of people eligible to vote by sex). Gender-specific governance indicators monitor practices targeted at women. These include input, output, and outcome indicators designed to increase

women's empowerment (e.g., the percentage of governmental and parliamentary seats allocated to women). Implicitly gendered indicators include measurements of legislation on sexual harassment and marital rape and the number of men convicted for rape and attempted rape. Last, the indicators chosen by women show differences in preferences and priorities in governance between genders (e.g., confidence levels of citizens, disaggregated by sex, that the government represents their interests).

Governance: Data Accuracy and Reliability

The main issues with assessment of governance indicators include unreliable information and general lack of gender disaggregated data. The assessment of data gathered by political indicators is subject to (1) the lack of comparability over time, (2) sample bias, and (3) insufficient transparency (Arndt and Oman 2006).

Lack of Comparability over Time

Composite governance indicators do not give a reliable comparison of different levels of governance over time (Arndt and Oman 2006). Governance is a process and its evaluation has to be made over time. The first issue is that methods for compiling indicators change over time. Naturally, this situation affects the assessment of collected data. Second, imprecise statistical data create uncertainty in comparisons. For example, variations in the classifications from one year to the next occur due to the perception of corruption levels. Similarly, the list of countries included in an overall evaluation that has a ranking system, such as Transparency International, can change (France Diplomatie 2012).

Sample Bias

There is a danger that surveys and interviews monitoring political indicators are influenced by an agency's view on an economic approach or environmental concern (Arndt and Oman 2006).

Lack of Transparency

Due to the aggregation of large numbers of indicators to measure governance and the intricacies involved with explaining these calculations, reported scores are often not explained. An example is the World Bank's Country Policy and Institutional Assessment, an index that rates countries based on their demonstrated support of sustainable growth and poverty reduction (World Bank 2004). The lack of transparency of Country Policy and Institutional Assessment scores limits a country's ability to target specific weaknesses. This limits score assessment, making it difficult to improve quality of governance without knowing shortcomings based on governance indicators (Arndt and Oman 2006).⁸ Furthermore, more than 50 countries are not ranked on the Country Policy and Institutional Assessment, which is especially problematic as these countries may have high levels of corruption, creating an omission bias in the rankings. Consequently, Transparency International does not encourage the Country Policy

⁸ Due to these shortcomings, beginning in 2006, the World Bank has disclosed Country Policy and Institutional Assessment scores to the public (Arndt and Oman 2006).

and Institutional Assessment to be used for decisions on aid allocation. Disadvantaged countries will come across further limitations when the assessment is misinterpreted for aid allocation because although willing to reform, these countries are nonetheless perceived as very corrupt.

Governance: Effectiveness at Measuring Women's Empowerment

Literature shows that the proportion of women in parliament is a credible indicator of gender equality. The International Institute for Democracy Electoral Assistance and Stockholm University developed “gender quota indicators” that monitor women’s quotas in parliament, political party quotas, and constitutional quotas. Similarly, UNDP’s gender indicators measure the number of positions held by women in parliament, the legislature, and other senior and junior decision-making positions in 173 countries (Bugingo and Interayamahanga 2010). Governance indicators (e.g., government spending per capita of female population on programs to reduce discrimination against women and the proportion of parliamentary seats reserved for women) directly measure change in women’s empowerment. Indicators such as the ratio of parliamentary seats of men to women measure changes in gender equality. These specific indicators are purposefully monitored to increase women’s empowerment (Scott and Wilde 2006).

The lack of gender-responsive budgeting is a common limitation for governments committed to gender equality; therefore, gender-responsive budgeting is particularly important for women’s empowerment. Gender-responsive budgeting has improved delivery of gender-sensitive services to women and their families. When addressing gender-responsive budgeting, a wide variety of issues affecting women can be addressed, such as police and justice services and counseling and protection services (Scott and Wilde 2006).

Case Example

Rwanda illustrates the positive effect of monitoring the number of seats held by women in parliament. With Rwanda’s government characterized by unequal power relations between men and women, the Rwandan constitution, adopted in 2003, includes quotas for women in decision-making positions. The high representation of women in parliament is a direct indication of good governance. Additionally, the country established a stronger focus on advocacy, education, and gender-sensitive laws. In 2008, the Rwandan government passed a law against gender-based violence initiated by the Rwandan Women Parliamentarians’ Forum. The forum also advocated for the addition of a provision to promote citizenship of children of Rwandan women. The law of nationality, passed in 2005, states “any child whose one of his or her parents is a Rwandan, is a Rwandan” (Bugingo and Interayamahanga 2010, 65).

D. Health

Health is a determinant of a population’s well-being, labor market participation, worker productivity, savings, and fertility. As a key component for strong human

capital, research shows that health directly influences economic growth and development. Bloom et al. (2004) find that a one-year increase in a population's life expectancy increases real gross domestic product by 4 percent. Jamison et al. (2007) find that health improvements account for 11 percent of growth, through higher income levels.

Women's health affects both individual household and national economic welfare due to gender roles. A woman's ability to lead a healthy and productive life is crucial for a country's well-being because women account for almost 75 percent of food production in low-income and middle-income countries (Tsu and Levin 2008). In general, women tend to live longer than men and have lower mortality rates than men at any age, but this trend does not imply that women are healthier or better able to access health-care resources. Mortality rates reveal extreme damages to health and do not take into account other, large health differences between men and women (Pan American Health Organization 2005).

Additionally, women often take care of children and prepare meals. To fulfill these important duties and ensure well-being of their families, women must be physically well and knowledgeable about health. Broader changes can occur within communities and regions if societies have improved women's abilities to make decisions regarding childbearing, childrearing, sexual relations, and use of contraceptives.

Critical differences exist in the preventability, manifestation, prevalence, and consequences associated with health problems of men and women. Therefore, gender equity in health does not necessarily mean equal rates of mortality or equal resources for both genders. Rather, gender equity should be the elimination of preventable health-related differences between genders and the proper allocation of health resources based on gender-sensitive needs (Pan American Health Organization 2005).

Health: Measurement

Two main household surveys collect data on women's and children's health: the Demographic and Health Surveys, funded by USAID, and the Multiple Indicator Cluster Surveys, funded by UNICEF. The Demographic and Health Surveys and Multiple Indicator Cluster Surveys are conducted every three or five years, respectively (WHO 2011). By using household surveys, indicators measure utilization of available health-care services and behaviors of individuals and families, such as contraception use.

Service delivery reports from health-care facilities are another important data source for gender-sensitive health indicators. As health facilities can continuously update data, these reports provide more timely data than household surveys (WHO 2011). However, facility reports are often incomplete and possibly inaccurate due to a lack of standardized administration and other implementation issues. Moreover, data from facility reports are biased, as not all people use health-care facilities and reports are often not standardized across facilities.

We identify 11 health categories and 103 health indicators, shown in Appendix E. Gender-sensitive health indicators are, for the most part, well-established and used by many agencies worldwide. The following section evaluates indicators from four health subcategories based on accuracy and reliability of data and effectiveness of measuring women's empowerment. The evaluated subcategories include recommended indicators that will be discussed in Section III from the reproductive health, maternal and infant health, disease and prevention, and environmental health categories. An evaluation of the remaining indicators is found in Appendix E and includes the following health categories: access and utilization of health services, fertility and population growth, health-care management, health expenditures, mental health and risk behaviors, nutrition, and violence against women.

Disease and Prevention Indicators

Disease and prevention indicators measure immunization rates, disease prevalence, cause of death, and treatment effectiveness. Almost all of these indicators are quantitative and measure national-level phenomena through data obtained from facility reports, household surveys, and epidemiological surveillance systems. Immunization indicators focus on the percentage of children and infants receiving specific vaccinations; namely, tetanus toxoid, polio, hepatitis B, and measles (WHO 2011).

Data Accuracy and Reliability

Vaccination and immunization data sources can provide accurate and reliable measurements. Moreover, as these data are standardized, they can be compared internationally. When measuring causes of death and prevalence of diseases, facilities may underreport due to misdiagnosis, stigma associated with the disease, and bias of including only people using health-care facilities.

Effectiveness at Measuring Women's Empowerment

Causes of death among women reveal major health problems and overall health trends in a country. Treatment for diseases varies between men and women because of different symptoms, access to money and insurance, and knowledge of health systems. Moreover, women have biological predispositions that increase their risk for certain diseases relative to men and therefore inflate their death rates. Although indicators in this category provide an approximate number of people affected, they do not show causes for disease.

Furthermore, many women do not display symptoms when they have a sexually transmitted infection, causing them to delay treatment and risk spread of disease. Disease and prevention indicators are instrumental in measuring effectiveness of health interventions such as using condoms and practicing safe sex, using mosquito nets to prevent malaria, and undergoing regular prevention checkups to prevent reproductive health-related cancers. See Appendix E for a brief evaluation of each individual indicator in this category.

Environmental Health Indicators

Women face different environmental issues than men because of their greater involvement in domestic work inside the home. Air pollution and access to sanitation and clean water are the key indicators in this category. In general, one of women's main responsibilities is water collection for daily use at home. Exposure to air pollutants (e.g., tobacco smoke and air particles from using solid fuels to heat and cook) can lead to chronic health ailments. All indicators in this category are quantitative and measured on a national level.

Data Accuracy and Reliability

Household surveys and population censuses provide the main sources for environmental health data. Measurements of potable water and access to sanitation are widely used, reliable, and often standardized. However, when measuring air pollution risk-factors such as solid fuel, indicators do not measure actual concentrations of pollutants. Consequently, indicators use different definitions of solid fuel, which may cause international discrepancies due to lack of standardization (Pan American Health Organization 2005).

Effectiveness at Measuring Women's Empowerment

Access to sanitation and clean water is of utmost importance to women's empowerment because daily life and domestic activities depend on it. In addition, potable water is directly linked to control of a variety of diseases and overall health (WHO 2011). As women gain access to clean water in their own homes, they save tremendous amounts of time. However, water collection methods and habits greatly depend on culture. For example, traveling to retrieve water may be the only time a woman is allowed to leave her house and communicate with other women.

Maternal and Infant Health Indicators

Maternal and infant health indicators are the most widely used health indicators because of their significance to overall health of a population and women's access to medical resources. These indicators measure the health-care system's ability to provide adequate care before, during, and after birth. They also measure risks associated with pregnancy in a particular country. Maternal and infant deaths are the main cause of death for women and children in developing countries, even though these risks are largely preventable. Data for these indicators are quantitative and collected through health facility reports, demographic surveys, household surveys, death registration systems, and program monitoring records.

Data Accuracy and Reliability

Although maternal and infant health indicators are widely used by international and governmental organizations, accuracy of data depends mostly on completeness of facility reporting, which is biased and often not standardized. Especially important for this category of indicators, health reports often present inaccuracies in the form of death misclassifications (Pan American Health Organization 2005). Moreover, receiving health services does not demonstrate their effectiveness in improving maternal and infant health. And, data show results but not the causes of health issues such as low birth rate.

Effectiveness at Measuring Women's Empowerment

Women require additional health services because of reproductive biological factors. Maternal and infant health indicators effectively demonstrate access to basic health services and provide an overall evaluation of health-care systems. Delivery methods, resources, and care for mothers and infants are crucial components to ensure healthy future generations.

Reproductive Health Indicators

Reproductive health indicators focus on the use of family planning methods, sexual behaviors, and existence of reproductive-related laws and policies. Contraception use is greater in developed countries and positively correlates with higher levels of education. In addition, access to contraceptive methods is often poor in developing countries. Indicators in this category are almost all quantitative, measured at the national level, and they measure data from health facility reports and demographic and health surveys.

Data Accuracy and Reliability

Due to the sensitivity of the topics of contraception, sexual behaviors, and family planning, data may be biased. For example, many indicators relate to numbers of sexual partners and condom use, which may be highly influenced by cultural and social norms. Likewise, facilities' data on abortion rates do not capture actual rates as many abortions do not occur at health-care facilities.

Effectiveness at Measuring Women's Empowerment

The ability to plan one's number of children and space their births is a fundamental right of individuals and couples (Pan American Health Organization 2005). Access to information and contraceptive methods demonstrate women's right to plan family size. Qualitative indicators measure existence of laws on sexual and reproductive rights and policies to integrate sexual education in schools. These indicators demonstrate the willingness of governments to provide contraceptives and education related to reproductive health.

E. Media

The media are a channel to examine the right to freedom of opinion and expression. This right and the ability to exercise it should not be contingent on gender. For empowerment efforts to be successful, women must be able to exercise their rights in the same manner and to the same extent as their male counterparts. Yet, being able to exercise a universally declared human right is insufficient for empowerment. Allowing women access to communication systems, such as media, does not guarantee that their opinions will be expressed equally or that their participation in the media will be mainstreamed: stereotyping and alienation of women by the media are still remarkably widespread phenomena (WACC 2010). According to the International Federation of Journalists (2009), "If we continue at the current rate of progress, it will take another 75 years to achieve gender equality in media." Indicators pertaining to

gender equality measure the extent to which women participate and are fairly represented in the media.

Although women may be able to offer opinions, the method of expression of opinions and perspectives in society is not trivial because systematic exclusion of women's perspectives undermines the right to freedom of speech. Media and the systematic expression of opinion can play a major role in empowerment as they can perpetuate gender inequalities and stereotypes or drive social development (UNESCO 2010). Media reflect social and cultural beliefs of society and they have the capability of empowerment through purposefully voicing the opinions and perspectives of marginalized segments of the population. Diversification of media workers (e.g., females writing news items, presenting all types of news stories, and making top-level decisions in news organizations) promotes fair gender portrayal in the media (UNESCO 2012).

Three main categories make up the media dimension: equal expression of freedom of speech, equal coverage in news reporting, and equal treatment of media employees. The equal treatment of media employees category contains six subcategories and 48 indicators; the equal coverage in news reporting category contains six subcategories and 37 indicators; and the equal expression of freedom of speech category contains 13 subcategories and 122 indicators. Appendix F lists all 208 indicators.

Media: Measurement

Discourse on the relationship between gender and media is occurring on the international stage. The 1995 Beijing Declaration and Platform for Action, adopted at the UN's Fourth World Conference on Women, highlighted the key role of media to promote gender equality. In 2010, UNESCO, as part of International Women's Day celebrations, launched a global exchange on gender-sensitive indicators for media organizations. Two years later, in 2012, UNESCO published its report on gender-sensitive indicators for media, the most comprehensive listing of such indicators. In November 2013, UNESCO will hold the first Global Forum on Media and Gender (UNESCO 2012).

Comparison of the treatment of women and men working in media and analysis of news reporting on women are the two main categories of indicators in the work of UNESCO. To accurately understand the complex relationship between media and empowerment of women and the context in which it exists, to UNESCO's categories, one must look at freedom of speech in addition (International Research and Exchange 2011). Working with USAID, the nonprofit International Research and Exchange has created the Media Sustainability Index, which scores media systems from unsustainable to sustainable based on ability to exercise free speech. Additionally, Freedom House has created a Freedom of the Press Index, which is supplemented by the World Press Freedom Index issued by Reporters Without Borders (Reporters Without Borders 2013). The U.S. State Department, while committed to women's issues and human rights, does not appear to monitor the relationship between gender and the media.

The Global Media Monitoring Project, an initiative of World Association for Christian Communication, offers systemic, quantitative measurements of gender and news media. Based on a rigorous methodology, volunteers around the world record data on the news on a single, pre-determined day every five years. These gender-disaggregated data offer a snapshot of the portrayal of females in the media and allow for comparison across countries (WACC 2010).

Media: Characteristics of Indicators

Across all three categories of the media dimension, most indicators are qualitative and measure organizational-level characteristics. The equal expression of freedom of speech category solely contains qualitative indicators that assess the legal, political, and economic environment in which the media operate as well as access to media and its varied news stories. These indicators come from the International Research and Exchange (2011). For the equal treatment of media employees category, in addition to equal pay and promotion statistics, indicators primarily measure the presence of affirmative action policies and women's involvement making high-level decisions at media organizations. Professionalism of media employees and cyclical reviews of organization policies and practices also serve as indicators. All of these indicators come from UNESCO (2010, 2012) and International Research and Exchange (2011).

For the equal coverage in news reporting category, about half of the indicators quantify the proportion of gender portrayals in news stories (e.g., the number of stories about women, with women as experts, or depicting female stereotypes). The qualitative indicators measure the existence of policies that assist the creation of gender-conscious news stories. UNESCO (2010, 2012) created all of these indicators.

Media: Data Accuracy and Reliability

The principal source for international data on the media is the UNESCO Institute for Statistics; however, much of the collected data are not gender-sensitive because UNESCO's publication of gender-sensitive indicators occurred in 2012. Much of this data, originating from questionnaires on broadcasting, newspaper, and legal and regulatory framework, is quantitative. The data are primarily comprised of the number of media organizations supplying various types of media (e.g., the number of radio stations available in a region or the number of news channels owned by a broadcast media organization). UNESCO data also measure the regulatory environment under which the media organizations operate (e.g., the presence of regulatory authorities). Data on the number of female journalists and the sex ratio of journalists for newspapers and broadcast journalism are also collected and useful for analyzing the role of women in the media. The accuracy and reliability of these data are believed to be high, due to UNESCO's collection methods and standards (UIS 2012).

Reports based on data gathered using UNESCO's gender-sensitive indicators are offered as case studies in the appendices of *UNESCO's Media Development Indicators: A Framework for Assessing Media Development* (2010). These case

studies, commissioned by UNESCO and conducted independently by media unions and associations, offer conclusions and recommendations for four regions of the world, based upon analysis of an array of regional media companies. Consequently, with the vast majority of indicators being qualitative (e.g., the presence of organizational policies supporting women), the data collected should be highly accurate and reliable. The Asia-Pacific case study noted, however, large gaps in the availability of information on discrimination and female participation. Some organizations were “unable to readily state the number of women working at different management levels or the proportion of women who are spokespersons on economic stories” (UNESCO 2012, 62).

Since 1995, the World Association for Christian Communication’s Global Media Monitoring Project has collected gender-sensitive data related to the media. Once every five years, on monitoring day, volunteers code their country’s radio, television, and newspaper news stories. Despite high accuracy, due to its heavy focus on quantitative data, many reliability issues stem from volunteers incorrectly coding news stories. With improvements in methodology each time the assessment is conducted, different coding sheets for each type of news source, limited monitoring and training of volunteers, and methodology guides available in a limited number of languages, accuracy of the data may be low (WACC 2010).

Media: Effectiveness at Measuring Women’s Empowerment

The effectiveness of UNESCO Institute for Statistics (2012) data for measuring women’s empowerment is quite limited: only summary statistics of indicators are available. Because UNESCO’s gender-sensitive indicators measure women’s issues more directly, they are more effective at measuring women’s empowerment. However, in the media dimension, as with other dimensions, no single indicator comprehensively measures empowerment. For example, the presence of affirmative action policies at a media organization may not indicate actual policy implementation and adherence. Additional qualitative indicators, such as the cyclical review of policies and awareness of employees of the policies, can help with this disparity.

The indices of Freedom House (2012), International Research and Exchange (2011), and Reporters Without Borders (2013) prove useful for comparing freedom of speech across countries through relative ratings and rankings; however, as mentioned, the overall gender sensitivity of an index score is ambiguous. In short, the ability of media indices to reflect women’s empowerment and the ability to infer women’s empowerment from media indices is quite limited.

The World Association for Christian Communication’s Global Media Monitoring Project (2010) appears to be effective at measuring women’s empowerment. The primary limitations are the limited scope of the project, and the infrequency of data collection of every five years. Overall, through detailed quantification of news stories, this longitudinal study appears to effectively capture one aspect of women’s empowerment in 71 countries.

III. RECOMMENDATIONS

We provide recommendations for each dimension by assessing identified indicators on four previously discussed criteria: measurement, data accuracy, data reliability, and effectiveness at measuring women’s empowerment. Moreover, in recommending indicators, consideration is given to standardization and comparability across countries as well as the current use of such indicators by international organizations, the U.S. State Department, and USAID. Tables displaying recommended indicators, rationale for their selection, data collection and calculation methods, and indicators’ advantages and limitations are also included in this section.

For the dimensions of education and health, “watch list” gender-sensitive indicators are provided in Appendix G. These indicators are limited by feasibility of data collection, but are included to discuss potential future use.

A. Economic Contribution Indicator Recommendations

In recommending economic indicators, we focus on those that capture unequal power relations that cause inequitable distribution of economic benefits. Out of 212 identified indicators in the economic contribution dimension, we recommend nine with the most favorable rankings based on previously mentioned selection criteria. Table 2 provides an overview of recommended indicators.

Table 2. Recommended Gender-Sensitive Economic Contribution Indicators

Category	Indicators (Source)	Rationale	Calculation	Data Collection	Advantages and Limitations
Market Participation	1. Labor participation in informal economy (WomanStats Project 2012; World Bank 2012); 2. Labor participation gap (World DataBank 2012); 3. Percentage of married workforce (WomanStats Project 2012)	1-2. Gender gaps monitor women's progress in labor force; 3. Marital status adds sensitivity measure to labor availability for mothers and wives, which requires infrastructure (childcare, maternal leave) and women's household decision-making	1. By level of employment and sex 2. By ratio of sex in participation rate 3. By level of married workforce	National and sub-national labor surveys; household censuses and surveys	(+) Feasible, accurate, and reliable measure of distinction between genders. (-) Does not always measure ratio which may misrepresent results; marital status of workers in informal economy not always measured.
	Women in positions of operation control or highly technical occupations (Hausmann et al. 2012; UN 2010; UNDP 2011; World DataBank 2012)	Measures existing infrastructure and opportunities in place for women to attain technical or high positions (e.g., officials, managers, employers, and self-employed)	Ratio, female to male ratio; percentage of females and males self-employed over all employed	National and sub-national labor surveys and censuses	(+) High feasibility and reliability of data. (-) Accuracy variation as "employed" workers included, but definition of employment can vary; ineffective for population at or below poverty level.

Category	Indicators (Source)	Rationale	Calculation	Data Collection	Advantages and Limitations
Market Participation (continued)	Time spent on unpaid work (Beijing Declaration and Platform for Action 1995; FAO 2013; UNDP 2011; WomanStats Project 2012; World Bank 2012)	Expected time spent on domestic and socio-economic activities differs more between genders when society expects women to perform volunteer and domestic work.	Time and type of activities women spend completing ("required daily duties") as compared to men	Time-use surveys	(+) High accuracy measure of true productivity. (-) Reliability can vary.
Resource Equity	Institutional access to credit (OECD Development Centre 2012); Ownership of land and assets other than land (Beijing Declaration and Platform for Action 1995; FAO 2013; OECD Development Centre 2012; UNDP 2011)	Legal rights, de facto access to assets, and decision-making ability are associated with economic and other financial tools that correlate with societal views of status.	Legal and de facto credit and ownership access by sex and ownership type (male, female, or jointly held)	National and sub-national labor surveys; household surveys; agricultural census	(+) High feasibility and accuracy of data collection (information available and accessible). (-) Lack of standardization in calculation method.
	Credit loan terms and amount (FAO 2013)	Can evaluate women's economic leverage outside of the household; provides observation of women's ability to bargain for better livelihoods, potentially without spousal influence.	By sex, loan term, and amount	National accounts data; official government statistics; industrial data; agricultural census	(+) Reflect women's bargaining power outside household; high feasibility, accuracy, and reliability. (-) Must use in conjunction with household internal decision-making indicator; cannot account for unofficial loans or loan qualification variations.

Source: Authors

Market Participation: Labor/Workforce Composition

We recommend a combination of three indicators for the subcategory of labor/workforce composition: labor participation in the informal economy, labor participation in the formal economy, and marital status in the formal workforce. Because women make up much of the informal labor force, its composition can reflect overall female labor participation. Marital status of the female workforce measures labor availability of mothers and wives, which requires significant societal infrastructure (e.g., childcare, maternal leave) and may be reflective of women's decision-making power within the household.

A main advantage of these indicators is the high availability of data from national and sub-national censuses. The combined measurement of formal and informal labor participation, in addition to monitoring marital status of workers, can be

used to accurately depict gender disparity in workforce participation. However, these indicators must be calculated using gap ratios instead of rate levels to reliably demonstrate women's progress in workforce composition.⁹ These indicators, however, do not capture the marital status of workers in the informal economy. Ideally, an inclusive labor participation indicator will disaggregate for both sectors, for similar work, and marital status.

Market Participation: Productivity Contribution

Two indicators best reflect women's productivity contributions within a market. The first indicator is the number of women in positions of operation control or highly technical occupations (including legislators, officials, managers, professionals, employers, and self-employed). The second indicator is time spent on unpaid work. Women's attainment of technical positions suggests structural opportunities for gender equality are already in place, such as education, equal hiring practices, and political representation. Female representation in these positions further reflects cultural acceptance of socio-economic status achievements by women (Bericat 2012). The advantage of these indicators stems from high feasibility of data collection and reliability of data. Limitations arise from the exclusion of unofficially employed workers and varying definitions of employment.

To capture work of unofficially employed and other omitted laborers, we recommend a supplemental indicator that measures time spent on unpaid work. Time spent on unpaid work differs greatly between genders as many societies expect only women to perform unpaid, volunteered caring, and domestic work.¹⁰ Additionally, the direct and indirect economic value of such productivity is often unrecognized by society—even when unpaid work accounts for as much as one-quarter of national productivity—simply because one is not being physically paid for this work (Stotsky 2006). Because women's work is more likely to be passed on to children (especially daughters) within the household, experts note the importance of measuring such work as it can serve as a proxy for gender inequality fostered in the next generation (Baunach 2001). With high accuracy, this indicator depicts gender inequality by measuring previously unrecognized productivity for women in developing countries. Reliability can be high when the indicator measurement is aggregated at national and international levels. But, measurements at local levels are needed to account for differences between urban

⁹ We choose indicators that are calculated using gap ratios rather than rate levels (or percentages) because the accuracy of the latter depends upon its reference population (Bericat 2012). Exemplifying the subjectivity of rate levels, a 3 percent increase in women in the workforce may be masked by the fact that there is a 10 percent increase in overall labor demand and actual demand for female workers is still lower than that of male workers. A gap ratio reveals how many female workers are demanded for every male worker, regardless of overall labor demand.

¹⁰ The difference between informal work and unpaid work is important to note. Women intentionally choose to perform informal work (e.g., selling baked goods on street corners) for economic gain. Unpaid work (e.g., household chores) is not performed for economic compensation. Consequently, the economic value of unpaid work, the opportunity cost, is often unrecognized and not captured by commonly used indicators.

and rural populations (Hussain and Kirmani 2010). Standardization methods can improve this indicator and increase comparability of results across nations.

Resource Equity: Access to Means for Increasing Economic Capacity

We recommend a combination of indicators that measure gap ratios in institutional access to financial resource, ownership of land, and ownership of property and assets other than land. Feasibility and accuracy of data collection for these indicators are quite high because financial and legal records are accessible. However, accuracy issues may surface when agencies calculate access measurements at the household levels because miscalculation can occur in some cases of multiple holdings, joint-holdings, or when household head differs from actual holder (Wiegers et al. 2009; Tayyib et al. 2013). Such complex ownership issues are typically a minor problem for higher level measurements, but can emerge as miscalculations at local levels.

Resource Equity: Power to Bargain

We recommend measuring loan terms and amounts extended to women to indicate their bargaining power. One reason for using this indicator is to evaluate women's economic leverage external of the household. Another purpose is to observe women's ability to bargain for better livelihoods, potentially without spousal influence. The World Bank leads in data collection and evaluation from national and sub-national surveys, resulting in high feasibility, accuracy, and reliability (World Databank 203912). However, this indicator should be used in conjunction with a measure of decision-making of household income for a holistic perspective. Other shortcomings of this indicator include the issue that loan qualifications may vary across institutions, resulting in large variances in aggregated data. Also, this indicator does not account for unofficial loans.

Comparison to U.S. State Department and USAID Economic Indicators

USAID uses a standard list of "Gender-Sensitive Indicators for Economic Growth/Trade-Related Activities" to evaluate economic development of countries (Diamond and White 2005).¹¹ Although a definite list of gender sensitive economic indicators from the U.S. State Department is not readily available, we infer that the indicators the State Department consults are similar to those used by USAID. We find that USAID's standard list contains many of our recommended economic indicators in exact or similar measurement forms. The economic dimension is unique in that the prevalence and standardized use of gender-sensitive economic indicators by USAID is high. Consequently, we are able to provide a direct comparison of our recommended indicators to those in use by USAID, as shown in Table 3.

¹¹ Because USAID does not provide a searchable database of economic indicator results, we cannot conclusively determine whether USAID uses all (as opposed to a select few) of the standard economic indicators on profiling individual countries, or how many countries are evaluated by the agency using these indicators.

Table 3. Recommended Economic Contribution Indicators and Comparable USAID Gender-Sensitive Indicators for Economic Growth/Trade-Related Activities

Category	Recommended Economic Contribution Indicators	Comparable USAID Gender-Sensitive Indicators for Economic Growth/Trade-Related Activities (Diamond and White 2005, USAID 2007, 2013)
Market Participation	1. Labor participation in informal economy; 2. Labor participation gap; 3. Percentage of married workforce	1-2. Number of workers employed in sectors, per year, some sectors further distinguished by new jobs created and people joining work force 3. No marital status measurement used
	Number of women in positions of operation control or highly technical occupations	1. Number of women entrepreneurs 2. Percentage of ownership of businesses by sex of owner and sector
	Time spent on unpaid work	1. Changes in men's and women's workload (time and task allocation) 2. Number of hours spent collecting fuel or water before and after project initiated 3. Quantitative change in hours of household labor by time and task allocation.
Resource Equity	1. Institutional access to credit; 2. Ownership of land; 3. Ownership of assets other than land	1. Number of users of various technologies (communication technology, agricultural technology) 2-3. No ownership measurement used
	Credit loan terms and amount	1. Number and value of loans to small producers, disaggregated by sex of business owner 2. Average size of loans by sector and size of business, disaggregated by sex of business owner 3. Number of loans dispersed through funding mechanism

Source: Authors

Overall, we believe USAID uses more sophisticated indicators compared to other agencies. Most USAID indicators monitor similar components of the economy as our recommended indicators, but USAID indicators tend to be more intricate. Although data and measurement results are not available for review, USAID's indicators seem to have more expansive and detailed measurement descriptions. For example, USAID employs multiple ways to measure productivity contribution by evaluating changes in workload amount for each gender as well as time spent collecting fuel and water. Another notable difference between our recommended indicators and those USAID uses is that USAID focuses on accessibility of technology and natural resources, instead of measuring access to credit institutions. We do not recommend the usage of technology and natural resource indicators due to a lack of evaluation of the accuracy and reliability of such data. Finally, we note that USAID does not monitor gender gaps in marital status of the workforce or ownerships of land and assets, as we recommend.

B. Education Indicator Recommendations

Among the 18 identified gender-sensitive education indicators, we recommend seven indicators as shown in Table 4. We suggest the percentage of schools with separate latrines and distance to school because these quantitative indicators could have a significant impact on promoting girls' education, but international

organizations do not monitor these indicators. An evaluation of the remaining indicators is found in Appendix C and potential use for education indicators is found the “watch list” indicators in Appendix G.

Table 4. Recommended Gender-Sensitive Education Indicators

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Adult literacy rate, by sex (15 to 24 years old) (World Bank 2011)	Reflects women's health, employment opportunities, and social status	Percentage of male and female population ages 15 to 24 who can understand, read, and write a short, simple statement about their everyday life	Population censuses and household surveys	(+) Demonstrates effectiveness of primary education systems; measures individual's intellectual growth; reflects recent outcomes of basic education. (-) Some accuracy limitations due to self-reporting; does not reflect knowledge such as numeracy, logical, and analytical reasoning (Barro and Lee 1993).
Completion rate, by sex (World Bank 2011)	Increases ability for women to make informed decisions about health, marriage, and parenting; leads to better job opportunities	Percentage of male and female students (regardless of age) in last grade of primary school, minus number of male and female repeaters, divided by the number of males and females of official graduation age	Population censuses and household surveys	(+) Captures human capital obtained at schools; assesses internal efficiency of education system. (-) May not measure actual learning outcomes; difficult to make international comparisons due to different graduation systems.
Female share of graduates by field of study (World Bank 2011)	Influences young women's future livelihoods, careers, and roles in society	Number of female students graduating in a field of study expressed as a percentage of total graduates in that field	Population censuses and periodic school surveys	(+) Reflects gender roles, cultural norms, and social expectations; highlights underrepresentation of girls and education opportunities. (-) Graduation requirements differ across countries.
Percentage of female teachers and trained female teachers (UNESCO 1997 and World Bank 2011)	Positive relationships between percentage of female teachers and quality of girls' education	Number of female teachers expressed as percentage of total teachers in education levels in a given school year; Number of female teachers who received minimum teacher-training required for teaching at that education levels in the given country	Administrative files and periodic school surveys	(+) Serve as role models for young women to pursue studies and encourage parents to educate daughters (UNESCO 2003); makes classroom safer and more inviting for girls and young women to continue education; training empowers female teachers to further skills and able to compete with male counterparts. (-) Lacks standardization of teacher qualifications.

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Gross enrollment ratio, by sex, and vocational and technical enrollment, by sex (UNESCO 1997 and World Bank 2011)	Improvement in girls school enrollment ratio, particularly benefits older girls who previously performed poorly in school or lacked education opportunity	Number of male and female students enrolled in education level regardless of age, expressed as a percentage of male and female population in the age group for that level of education	Population censuses and periodic school surveys	(+) Widely used across countries due to availability of data; accounts for over-aged and repeat grade girls; promotes women's higher education in underrepresented fields and direct how women can engage in labor market relevant to a country's need. (-) An upward bias as data refer to number of students registered at beginning of each school year, not attendance during the year (Barro and Lee 1993).
Percentage of schools with separate latrines	Positive relationship between percentage of schools with separate latrines and girls' education	Percentage of school with separate latrines expressed as a percentage of total schools in that country	Administrative files and periodic school surveys	(+) Increases girls' enrollment rate and reduces girls' absence and dropout rates caused by unfriendly environment. (+) Reliable data because physical construction is visible.
Distance to school	Negative relationship between distance to school and girls' enrollment	Distance from community or village to school	Local government report and periodic school surveys	(+) Encourages girls to attend school and likely reduces the dropout rate; feasible to measure at country level. (-) Limitations on data availability and on international comparison.

Source: Authors

Adult Literacy Rate for Ages 15 to 24

Generally, primary school completion is considered a good proxy for adult literacy rates in most countries as primary school graduates have reading and writing skills. However, some former states of the Soviet Union and some parts of West and Central Africa require additional years of schooling to guarantee literacy (Huebler 2006). Adult literacy rate measures a country's investment in education, its human capital stock, and the efficiency of its education system. Literate women have more bargaining power within the household, job market, and social arenas. Measuring literacy rates among 15- to 24-year-olds is preferable to the literacy rates of 15 years and older as the former reflects more recent educational outcomes, which enables better assessment of interventions that promote gender parity. Furthermore, literacy rates among younger women are generally much higher than older women (UN 2010).

Literacy data are widely available in developing countries and generally collected from national censuses and surveys. Data may be inaccurate because they originate from self-reports (Saith and Harriss-White 1998). However, it is infeasible to conduct literacy tests on an entire population. Although literacy rates may be underestimated because they exclude minority languages, results should

not be significantly different due to a small portion of population solely speaking the minority language.

School Completion Rates and Fields of Study

The World Bank uses school completion rates as the proxy for increased human capital obtained from students attending school. UNESCO points out that this indicator fails to measure actual learning outcomes and is difficult to compare internationally as graduation systems vary by country. For instance, some countries may require students to take graduation examinations while others apply automatic promotion (Cameron 2005). Due to these limitations, UNESCO's Institute for Statistics publishes gross intake rates to the last grade of primary school, making these data accessible for international comparison. However, these gross intake rates to the last grade of primary school do not take into account learning outcomes. Overall, despite different methods used by the World Bank and UNESCO, these two indicators yield similar results (Huebler 2006).

Agencies prefer completion rates to survival, repetition, and dropout rates because they cover human capital formation and efficiency of the education system. Gender differences in education attainment also determine gender differences in labor market participation. Moreover, the indicator of female share of graduation by field of study is essential in determining young women's future livelihoods, careers, and roles in society (UN 2010).

Percentage of Female Teachers

Many studies find strong, positive relationships between the presence of female teachers and education of girls. Mingat and Suchaut's (1998) cross-country regressions for Africa find that an increase in female teachers correlates with higher enrollment and lower dropout rates for girls. Alim et al. (2007) reports that in countries with similar numbers of male and female primary school teachers, the enrollment proportion of boys and girls is not significantly different. In contrast, countries with less than 20 percent of female teachers have far more boys enrolled than girls. The World Bank (2004) suggests that a higher proportion of female teachers in Botswana has a consistent, positive relationship with higher achievement for girls, without putting boys at a disadvantage.

Investing in the training of female teachers helps achieve short-term and long-term goals of closing the gender disparity in education. Female teachers provide greater opportunity for school girls to obtain higher levels of education and can act as an important role model for girls. This indicator is highly recommended, particularly for sub-Saharan African countries where the largest gender disparity in education exists and female teachers account for a quarter or less of all primary school teachers (LaFraniere 2005). Data on gender of teachers can be collected by individual schools, a straightforward and reliable method. However, tracking the percentage of female teachers trained can be problematic due to the lack of standardization of teacher qualifications, a barrier to international comparability of indicators.

Gross School Enrollment Ratio

The school enrollment ratio captures access to education at every grade level. UNESCO suggests that school enrollment data are widely available in developing countries and are reliable at the global level. With distinct characteristics of gross enrollment ratios and net enrollment ratios, Saith and Harriss-White (1998) report no significant differences between these two indicators in developed countries; however, no studies have investigated the differences in developing countries. For the purpose of women's empowerment, we recommend the gross enrollment ratio because it takes into account grade repeaters and over-age girls unable to enter school at their standard school-age. Gross enrollment ratios would encourage a country to improve girls' school enrolment ratios regardless of their age. This means that older girls, who may have performed poorly in school or lacked educational opportunity, would benefit from such interventions. Moreover, the gross school enrollment ratios at the secondary level deserve attention because parents invest in their daughters less than sons for secondary or higher education, even though these education levels are most effective for empowering women and benefit their children and family's well-being. Additionally, the enrollment ratio by field of study can promote women's higher education in underrepresented fields and direct women's participation in the labor market relevant to a country's need.

Despite the advantages of gross school enrollment ratios, this indicator overestimates enrollment because not every student enrolled actually attends school. This upward bias is particularly high for countries where education is compulsory by law. Actual school attendance rate for first grade in rural China was 30 percent below the enrollment rate (Fredriksen 1991).

Percentage of Schools with Separate Latrines

Lack of proper and separate latrines deters girls from attending school. Many studies report that girls' absence from school peaks during menstruation (World Bank 2004). In sub-Saharan African countries, sexual violence often takes place in co-ed latrines and is more likely to occur if girls attend school (Tembon and Fort 2008). Having separate latrines would not only improve sanitary conditions for girls, but it can also reduce sexual abuse; it could also increase girls' enrollment rates and reduce absences and dropout rates caused by environments hostile to girls. In terms of collecting data, this indicator can be added into school surveys, administrative files, and government reports. To ensure separate latrines meet a minimum standard, surveys could provide specific definitions of what qualifies as a separate latrine. Data should be reliable because physical construction is visible.

Distance to School

Many empirical studies support a negative relationship between distance to school and girls' enrollment. Studies from South Asia and Africa show that constructing schools in areas where few girls attend school increases girls' enrollment sharply within several years (Glick 2008). Herz and Sperling's (2004) cross-countries study found similar results that school-aged children are 10 to 20 percent more

likely to attend school if there is a primary school in their village. For instance, constructing schools in local communities of Mali increased overall girls enrollment by 67 percent and the number of 7-year-old girls entering primary school rose by 83 percent during 1989 to 1993 (Herz and Sperling 2004).

A shorter distance to school could reduce risk of sexual harassment, incidence of unwanted pregnancy, and early marriage that may cause girls to drop out from school. Having a school in the community, parents are more likely to encourage their daughter's education as it would be safer for girls while allowing them to manage both school work and housework. In terms of measurement, the range of distance from school to the community can be set to assess efficacy of increasing school enrollment and education outcomes. Schools or local governments could provide these data. It is feasible to implement at a country level with low cost because it is a one-time report.

Comparison to U.S. State Department and USAID Indicators

The U.S. State Department and USAID promote access to basic education for girls and women and encourage host countries to (1) hire more female teachers, (2) remove gender stereotype from learning material, and (3) provide separate latrines. However, no concrete policy or measurement has been adopted. The effectiveness of educational assistance to developing countries is measured based on enrollment rate improvement, which is one of our recommended indicators, and quality of education. With regard to the quality of education, USAID encourages host governments to measure spending per child and test scores in core subjects such as reading and mathematics (Diamond and White 2005).

C. Governance Indicator Recommendations

We recommend the seven governance indicators shown in Table 5. Recommended indicators are grouped together based on similarities.

Table 5. Recommended Gender-Sensitive Governance Indicators

Category	Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Gender-Responsive Budgeting	Parliamentarians subject to gender-sensitivity training including gender budgeting (Scott and Wilde 2006)	Allocation toward gender-sensitive training helps men and women put gender-related issues at the forefront of government agenda.	Number of those in parliament trained in gender-sensitivity topics	Government administrative data	(+) Monitor allocations toward women's issues and presence of these issues on national agenda. (-) Unclear or inconsistent information possible.
	Expenditures targeted at increasing female voter registration in electoral districts (Scott and Wilde 2006)		Assessment of money allocated for female voter registration		
	Expenditure on special programs in civic and voter education targeted at women (Scott and Wilde 2006)		Assessment of money allocated to special programs targeted at women		
	Governmental spending per capita of female population on programs to reduce discrimination against women (Scott and Wilde 2006)		Assessment of governmental spending		
Representation	Women in decision-making positions in local government/parliament or in local civil services/ministries (CIDA 1997)	Allows for greater awareness of women's issues, including maternity leave and domestic violence	Percentage of women in any decision-making positions at any level of government	Government administrative data	(+) Fairly easy to track in national databases. Pressures other countries to include women in decision-making. (-) Can create a quota for women which can put unqualified women in decision-making positions.
	Governmental committees chaired by women (CIDA 1997)		Percentage of women leading committees in government		
Legislation	Legislation against domestic violence (Scott and Wilde 2006)	Women feel more secure knowing that domestic violence is unacceptable in all circumstances	Analysis of legislation	Government administrative data and analysis of legislation	(+) Creates awareness of domestic violence. (-) Lacks cohesiveness due to different definition of domestic violence.

Source: Authors

Gender-Responsive Budgeting

Gender-responsive budgeting focuses on incorporating gender perspectives into local and national budgets through analysis and participation of women in budgetary processes (Scott and Wilde 2006). It is the most comprehensive way for a government to implement social and economic priorities. Therefore, gender-responsive budgeting recognizes different needs, responsibilities, and capabilities of women and men.

Tracking these indicators helps monitor allocations toward women's issues and puts issues pertaining to female voter registration or programs targeted to reduce discrimination against women on national agendas; however, gathering such data can come from local administrations, which can be unclear or not standardized.

Representation Indicators

Corner and Repucci (2009) compare indicators in more than 20 gender-related data sets and assessments and find that the most common indicators are those measuring women's representation in government. Although this recommendation is generally categorized as representation, specific examples include women in decision-making positions in local government/parliament or in local civil services/ministries and governmental committees chaired by women (CIDA 1997). Representation indicators measure the extent to which women actively participate in political life and engage in decision-making processes (Corner and Repucci 2009). They are fairly easy to track because relevant data are included in national databases. Reports on representation also pressure other governments that lack in such issues to include women in decision making. One concern arises when a quota for women is established within a government as it may put unqualified women in decision-making positions.

Legislation on Domestic Violence Indicator

Because domestic violence affects women, monitoring cases of domestic violence are commonly included in most indices (Corner and Repucci 2009). Tracking cases of domestic violence is subject to different understandings of what qualifies as domestic violence, but implementing legislation against domestic violence educates the public, both men and women, on the issue. It therefore provides room for innovative ideas on tackling the problem. Legislation against domestic violence addresses discrimination against women. It holds accountable people who commit domestic violence and can shift economic policies leading to gains across societies (UNIFEM 2011).

Comparison to U.S. State Department and USAID Indicators

Although USAID, along with several other international agencies, use political indicators, the agency's view of governance emphasizes its social and political aspects; namely, the processes of participation and responsiveness, democracy, and human rights. These aspects of governance are prioritized over other aspects of governance due to the systemic nature of these problems (e.g., lack of transparency and accountability) (Scott and Wilde 2006).

USAID has made concerted efforts to increase the number of women in governance leadership roles. For example, USAID in Afghanistan developed the Economic Growth and Governance Initiative, which is a government internship program for women. This internship provides skills-building training, mentoring and experience with the Afghan government (USAID 2009).

D. Health Indicator Recommendations

Although many gender-sensitive health indicators exist, few have reliable and frequent data collection that can be compared across countries. An overview of recommended health indicators is shown in Table 6. In addition to the proposed five indicators, other “watch list” gender-sensitive health indicators with potential for future use depending on data availability are discussed in Appendix G.

Table 6. Recommended Gender-Sensitive Health Indicators

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Presence of skilled attendant at birth (UNDP and UNIFEM 2009)	Arguably the most important intervention to prevent maternal mortality and stillbirths; provides information on women's use of delivery care services; measures ability of health-care system to provide adequate care	Percentage of births attended by skilled personnel (midwives, doctors, nurses) trained to give necessary care to women during labor and post-partum period.	Demographic health surveys, facility reports	(+) Measures progress toward improved maternal health and decreased maternal and infant mortality. (-) Data lack information on births that take place outside public health sector; data over-represents women with multiple births in survey period.
DTP3 Immunizations (World Bank 2012)	Coverage with three doses of DTP vaccine is used as a proxy for a fully immunized child; demonstrates health system performance for women and children	Percentage of 1-year-olds who have received three doses of combined DTP vaccine in a given year	Demographic health surveys, facility reports	(+) Data availability is high, easy to compare cross-nationally. (-) Data collected may indicate number of doses and not number of immunized children.
Contraception prevalence (Murray and Newby 2012)	Greater contraception prevalence leads to lower total fertility rates and reduced maternal and child mortality; Allows for birth spacing and planning of family size.	Percentage of women of reproductive age using (or whose partner is using) a contraceptive method at a given time	Population-based surveys; demographic and health surveys, family planning surveys	(+) High correlation between economic development and contraception prevalence. High comparability. (-) Lack of data in many countries; surveys use varying definitions.
Access to sanitation and clean water, by sex, region (WHO 2011)	Potable water is linked to control of many deadly diseases and overall health. Women generally collect water for daily use.	Percentage of households with access to sanitation and clean water	Household surveys	(+) Demonstrates direct relationship to government policy. (-) Data not measured frequently or regularly.

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
HIV prevalence, by sex among 15- to 24-year-olds (Murray and Newby 2012)	HIV/AIDS is a major public health concern and must be monitored. HIV transmission is more likely to be passed from men to women than women to men.	Percentage of HIV infections among 15- to 24-year-olds	HIV surveillance data, facility reports	(+) Changes reflect efficacy of prevention and education efforts. (-) Stigma associated with positive HIV diagnoses may cause data to underestimate prevalence.

Source: Authors

Presence of Skilled Attendant at Birth

Serious pregnancy complications may occur during delivery, and the presence of a skilled attendant or health professional is crucial to handle these complications. Studies show that a skilled attendant at birth is a significant predictor of maternal and perinatal mortality (Pan American Health Organization 2005). Skilled attendant services are not limited to hospitals; they include small health centers as well as midwives performing delivery at home. This indicator also measures availability and accessibility of health-care services for women and children.

Facility reports and household surveys measure the presence of skilled attendants at birth. Surveys across countries lack consistency in defining “skilled birth attendant,” which limits comparability of data across countries (Bertrand and Escudero 2002). In addition, many developing countries face education and human resource shortages, so increasing presence of skilled attendants at birth may take an extended amount of time.

DTP3 Immunizations

Women play a vital family caretaker role and have greater responsibility for childrearing than men. Measuring crucial health interventions such as immunizations, demonstrates use and access of health-care services and dedication of government policies to public health. Diphtheria, tetanus, and pertussis are bacterial diseases that spread person to person. The diphtheria, tetanus, and pertussis vaccine helps to prevent these diseases and protects throughout childhood if three doses are given to infants (CDC 2011). Therefore, the third dose of the diphtheria, tetanus, and pertussis vaccine, or DTP3, is a proxy for a fully immunized child (WHO 2011). Often mothers who are able to vaccinate their newborns exhibit high levels of maternal health, thus demonstrating health-care system performance for women and children.

Facility reports such as immunization records, as well as demographic health surveys, collect data on DTP3 immunizations. Because immunization data collection occurs frequently and regularly, the DTP3 indicator can reflect short-term changes. Standard data collection processes allow for simple cross-national comparisons. However, data collected shows the number of doses distributed, but not necessarily the number of children receiving the dose. Therefore, there may be slight discrepancies in data accuracy. Although donor agencies, rather than governments, generally pay for a large portion of immunization programs,

developing countries are increasing allocations of funds for national immunization programs. Consequently, even though donor investment may spur development of immunization programs, they are becoming institutionalized within government priorities. In addition, studies show that immunization rates such as DTP3 capture health improvements for an entire population, not just among citizens living in poverty (Becker et al. 2006).

Contraception Prevalence

Increased prevalence of contraception is directly related to lower total fertility rates, reduced maternal and child mortality, and greater access to health-care services. The ability to plan family size and space births is an essential right for men and women, and access to information and contraceptive methods is crucial for women's empowerment (Pan American Health Organization 2005). Experts regard measuring contraception use as the highest quality reproductive health indicator because behavioral motivation is unambiguous (Becker et al. 2006). By measuring use of different contraceptive methods and their distribution, this indicator can also show if certain groups or regions have more limited access.

Contraception prevalence is measured using household surveys and is the most widely reported indicator of outcomes of family planning programs at the population level (Bertrand and Escudero 2002). Although this indicator is generally comparable cross-nationally, data availability may vary among countries and surveys may use different definitions of contraception.

Access to Sanitation and Clean Water

Access to clean water and sanitation is a fundamental right and a necessary component of good health. Leading causes of death in many developing countries are due to water-related diseases transmitted through contaminated drinking water, inadequate sanitation, and poor personal hygiene (Becker et al. 2006). In addition, women generally bear greater responsibility in collecting and preparing water for household use. Therefore, improved access to sanitation and clean water allows women to reallocate their time to other activities. However, collecting and preparing water is an important aspect in some cultures, so behavioral changes may be gradual.

Sanitation and clean water data are derived from household surveys. This indicator has broad country-level comparability and directly reflects government policy. However, data are not measured frequently and there may be definition differences among surveys.

Prevalence of HIV among 15- to 24-Year-Olds

Even though HIV-positive rates are higher among men, its prevalence is quickly increasing among women, especially among 15- to 24-year-olds. Social norms and unequal distribution of power in relationships prevents women from protecting themselves, putting them at a greater risk of contracting the virus. In addition, women are biologically at higher risk of contracting HIV than men and are also subjected to greater discrimination when they become HIV carriers (Pan

American Health Organization 2005). This indicator demonstrates efficacy of prevention and education efforts and women’s ability to take greater control of their own sexual health.

Data on HIV prevalence comes from HIV surveillance data and facility reports. HIV/AIDS is stigmatized in many countries, so data estimates may be underestimated. Obtaining data on HIV prevalence is also limited in that the measurement includes all HIV-positive cases, not just cases in which the individual became HIV-positive in the past year. Therefore, even if a successful intervention were to decrease the incidence of HIV in a given population, the trend would not be known immediately (Bertrand and Escudero 2002). However, by focusing on 15- to 24-year-olds, who are at greatest risk of contracting HIV, trends may be observed sooner.

Comparison to U.S. State Department and USAID indicators

USAID and the U.S. State Department already use our five recommended indicators to monitor women’s progress and evaluate project effectiveness around the world. However, data collection methods for these indicators must be improved and standardized. For example, household surveys need to be clear in definitions and collected at regular intervals. Although USAID and the U.S. State Department use a wide variety of gender-sensitive health indicators, the five recommended in this report merit the most attention because of their ability to act as proxies for measuring health-care effectiveness and overall health of a population. In addition, the “watch list” indicators, which measure disease prevention, mental health, and violence against women, should be a continued focus in improving data collection methods.

E. Media Indicator Recommendations

Of the 208 identified gender-sensitive media indicators, we recommend nine, three indicators from each category.

Equal Treatment of Media Employees

Recommended indicators in this category, found in Table 7, measure gender policies of media organizations, transparent pay scales, and gender ratios of employee positions.

Table 7. Recommended Gender-Sensitive Indicators, Equal Treatment of Media Employees

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Existence of human resource policies on gender, including on equal treatment (UNESCO 2012)	Organizational commitment to equal treatment of employees	Existence of such policies	Organization reports	(+) Represents an organization's commitment to women's empowerment. (-) Employees may not be aware of policies; policies may not be enforced or of poor quality.
Transparent pay scale within a media organization (UNESCO 2012)	Organizational commitment to equal treatment of employees	Existence of a pay scale	Organization reports	(+) Represents an organization's commitment to women's empowerment. (-) Pay scale may not be enforced; women may not be promoted to high paying positions.
Proportion of women and men working in a media organization, disaggregated by job position (UNESCO 2012)	Highlights discrimination against females, ability to fulfill job requirements not based on gender	Ratio	Organization reports	(+) Depicts gender breakdown of job positions. (-) Not indicative of treatment of employees based on gender.

Source: Authors

The three recommended indicators offer an overview of main aspects of equal treatment of employees by media organizations. All of the recommended indicators are collected at the organization level, making the feasibility of data collection contingent upon the organization. Human resource policies on gender and a transparent pay scale qualitatively measure an organization's commitment to fair and equal treatment of its female employees; however, the presence of such policies does not ensure their enforcement. Additionally, employees may be unaware of these policies and the policies may be of poor quality and ineffective. Gender ratios of employee positions is a quantitative measure of the gender distribution of different jobs in media organizations. Although treatment of employees is not encompassed in this indicator, it reflects organizational support of affirmative action. An additional limitation of this indicator stems from the fact that women working in management positions may not indicate equal treatment of lower level-female employees.

Equal Coverage in News Reporting

Despite making up half the world's population, 24 percent of news subjects are female, according to data collected in 2010 by the Global Media Monitoring Project,¹² a statistically significant increase from 17 percent in 1995. Thirteen percent of news stories focus specifically on women and 6 percent of news stories challenge gender stereotypes (WACC 2010). These figures highlight the need for organizations to monitor their inclusion and depiction of both genders in news

¹² The Global Media Monitoring Project defines news subjects as "people who are interviewed or whom the news is about" (WACC 2010).

items. Recommended indicators in this category, found in Table 8, measure news organization resources for gender-sensitive reporting, depictions of individuals as professionals, and reinforcement of stereotypes in stories.

Table 8. Recommended Gender-Sensitive Indicators, Equal Coverage in News Reporting

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Existence of resources for gender-sensitive reporting (UNESCO 2012)	Organizational commitment to fair portrayal of both genders	Existence of resources	Organization reports	(+) Represents an organization's commitment to women's empowerment. (-) Resources may not be promoted, employees may not be aware of resources.
Proportion of women and men appearing as spokespersons, experts, and ordinary citizens (UNESCO 2012)	Quantifies portrayals of individuals in news items	Ratio	Organization reports	(+) Depicts gender breakdown of sources for news. (-) Societal norms may limit the number of female experts.
Proportion of stories with stereotypes that depict the traditional feminine and masculine characteristics and male and female roles (UNESCO 2012)	Quantifies media reinforcement of societal stereotypes of gender roles	Ratio	Organization reports	(+) Depicts an organization's support of gender stereotype types. (-) Results may be biased toward stereotyping due to societal structure.

Source: Authors

The three recommended indicators offer a sampling of measures of equal coverage in news reporting. All of these indicators are collected at the organization level, specifically from reports from media organizations, making feasibility of data collection contingent upon the organization. Resources for gender-sensitive reporting is a qualitative measure of the manifestation of commitment to women's empowerment within a media organization. Limitations of this indicator stem from ability to generalize organizational commitment and employee reception of gender-sensitive policies. Depictions of individuals as professionals and reinforcement of stereotypes are quantitative measures of portrayals of individuals in news items, disaggregated by sex. Predetermined, standardized definitions and examples of stereotypes can be used to prevent subjectivity across countries and cultures when collecting data using this indicator. Overall, these three indicators measure the embodiment of an organization's commitment to depicting females as autonomous individuals who make societal contributions (UNESCO 2012).

While the burden placed upon media organizations to collect data for these indicators may seem substantial, there are several reasons to believe that use of these indicators is feasible. First, as noted by UNESCO (2012), media organizations often use complex tools for measuring audience demographics and

ratings. Adding gender-sensitive indicators, such as those recommended above, to these measurements would allow for a comprehensive assessment of news reporting. Second, governments committed to affirmative action could make renewal of required media licenses contingent upon submission of data from indicators in this category. If governments were worried about potential bias from self-reported data, they could randomly monitor the gender-sensitivity of news coverage several days per year, following the example of the Global Media Monitoring Project. Finally, unions of media organizations could monitor gender-sensitivity of news reporting in a similar manner, through random monitoring of news reports or requiring member organizations to submit gender-sensitive data on news coverage (Phillips 2008).

Equal Expression of Freedom of Speech

One's ability to exercise the right to freedom of speech is not standardized across countries: some governments may strongly support free speech, while others limit the ability of organizations or individuals to exercise it. Recommended indicators in this category, found in Table 9, measure the legality of freedom of expression, the ability of individuals to contact journalists, and the number of media organizations.

**Table 9. Recommended Gender-Sensitive Indicators
Equal Expression of Freedom of Speech**

Indicator (Source)	Rationale	Calculation Method	Data Collection Method	Advantages and Limitations
Existence and enforcement of constitution or other laws that contain provisions to protect freedom of the press and expression (Freedom House 2012)	Existence of legal basis and executive support for freedom of speech	Existence and enforcement of laws	Country-wide survey	(+) Represents legality of free speech. (-) Does not include how often individuals exercise this right or take into account structural, economic, or cultural constraints.
Citizens can directly and freely contact journalists without government controls or monitoring (Reporters Without Borders 2013)	Ability to exercise freedom of speech	Agreement with statement	Country-wide survey	(+) Represents government and public support of free speech. (-) Measures one form of free speech; does not include frequency of individuals contacting media organizations.
Plurality of public and private news sources (International Research and Exchange 2011)	Diversity of news and opportunity for expression	Number of sources, disaggregated by owner	Country-wide survey	(+) Depicts organizations exercising free speech. (-) May overrepresent diversity as different news sources may be owned by the same organization.

Source: Authors

Collectively, the three recommended indicators offer a multidimensional overview of freedom of speech. All three are collected at the country level and offer high feasibility of data collection. Legality of freedom of expression is a qualitative measure with data gathered through analysis of laws and their

enforcement. Although this indicator does not measure experiences of individuals exercising their rights, it does measure the general legal atmosphere in which individuals express themselves and media organizations operate (Freedom House 2012). Ability of individuals to contact journalists is a qualitative measure that can be collected through a national survey. Though limited in scope, this indicator measures interactions between individuals and media organizations, which is indicative of public sentiment and government support regarding the right to free speech (e.g., if individuals fear retaliation from the government they will not contact media organizations) (Reporters Without Borders 2013). Due to the sensitive nature of the data for this indicator, they may not be accurate, especially if individuals believe the government is conducting or associated with the survey. Number of media organizations is a quantitative measure of news proliferation, representing diversity of news and effects of government regulations on media. More specifically, this indicator uses the number of media organizations as a proxy for the type of environment in which the organizations exist (e.g., highly regulated, with few organizations and possibly little diversity of news, or supportive, with multiple news outlets and opportunity for proliferation of organizations) (International Research and Exchange 2011). It is important that data for this indicator are disaggregated by ownership of the news organization as it allows for a transparent representation of media pluralism. With high feasibility of data collection, this indicator offers a numeric representation of the vitality of media and free speech within a country.

Comparison to U.S. State Department and USAID Indicators

The U.S. State Department, while committed to women's issues and human rights, based on its website, does not appear to monitor the relationship between gender and the media. The website of USAID, however, offers a few examples of initiatives pertaining to the media. Its flagship program is its civil society and media initiatives in Ukraine (USAID 2012).

With the aim of consolidating democratic advances and supporting the exercise of free speech in Ukraine, USAID offers civil society and media assistance to promote the development of a free, vibrant, and professional media sector (USAID Center for Democracy and Governance 1999). This assistance takes the form of increasing skills of journalists, supporting media legislation, and strengthening institutional capacities of organizations that support media freedom (USAID 2012). While specific USAID indicators for this assistance are not available on its website, indicators of equal expression of freedom of speech category are probably similar to those of as they align with USAID program objectives. It is unlikely that USAID uses any indicators that describe the equal treatment of media employees. Moreover, while USAID's assistance in Ukraine seeks to increase the range and number of news stories in the country and journalism skills (USAID 2012). It appears as if the goals of these initiatives are not gender-sensitive.

IV. CONCLUSION

This report illustrates the intricacies of gender-sensitive indicators in the five dimensions of economic contribution, education, governance, health, and media. We identify 581 indicators used by international and national agencies, and we recommend 37 indicators across all five dimensions.

APPENDIX A: INDICES

Table A-1 provides common indices used by agencies that measure gender-equality across nations.

Table A-1. Common Gender-Equality Indices

Index	Category	Indicators	Ranking/Score
Human Development Index (UNDP 2011)	Health	Life expectancy at birth	Range: 0 (low development) to 1 (high development)
	Education	Mean years of schooling	
		Expected years of schooling	
	Living standards	Gross national income	
Gender Empowerment Measure (UNDP 2011)	Political representation	Female and male shares of parliamentary seats	Range: 0 (low development) to 1 (high development)
	Representation in senior positions in the economy	Female and male shares of positions as legislators, senior officials, and managers	
		Female and male shares of professional and technical positions	
	Power over economic resources	Female and male estimated earned income	
Gender Inequality Index (UNDP 2011)	Labor market	Labor force participation	Range: 0 (very high development) to 1 (low development)
	Empowerment	Educational attainment (secondary level and above)	
		Parliamentary representation	
	Reproductive health	Adolescent fertility	
Maternal mortality			
Gender Equity Index (Social Watch 2012)	Political power	Percentage of women in technical positions	Range: 0 (e.g., no women educated and all and all men are) to 100 (perfect equality)
		Percentage of women in management and government positions	
		Percentage of women in parliaments	
		Percentage of women in ministerial posts	
	Economic power	Economic activity rate gap	
		Ratio of estimated female to male income	
	Education	Literacy gap rate	
		Primary school enrollment gap rate	
	Secondary school enrollment gap rate		
	Tertiary education enrollment gap rate		
Progress of the World's Women Index (UN Women 2011)	Political power	Electoral systems and quotas	Longitudinal study of individual countries; countries are not ranked
		Women in parliament relative to a quota	
	Economic power	Status in employment	
		Gender pay gap by sector	
		Employment sector	
	Service delivery	Lifetime risk of maternal mortality	
		Women's participation in decision making on own health	
	Access to justice	Female judges on Supreme Court	
		Correlation between an enabling legal environment and realization of women's rights	
	Police & Security	Legislation on sexual harassment and rape	
Female participation in the police force			

Sources: Authors

APPENDIX B: ECONOMIC CONTRIBUTION INDICATORS

Tables B-1 to B-5 show identified indicators in the economic contribution dimension. Each table represents indicators classified by subcategories.

Table B-1. Market Participation: Income Distribution

Indicator	Source
Gross domestic product, by current and annual percentage growth	World DataBank 2012
Gross domestic product per capita, by current US dollars	World DataBank 2012
Gross national income, by current US dollars	World DataBank 2012
Gross national income per capita, by Atlas method and purchasing power parity U.S. dollars	World DataBank 2012
National consumption, by sex of poorest quartile	Beijing Declaration and Platform for Action 1995; UN 2012
Poverty gap, by ratio of sex single-headed household	UN 2012
Poverty level, by percentage of sex of single-headed household	Beijing Declaration and Platform for Action 1995; WomanStats Project 2012
Poverty level, by percentage of type and size of household	Beijing Declaration and Platform for Action 1995; UN 2012; World Bank 2012
Poverty level with level of education, by type of household	Beijing Declaration and Platform for Action 1995; UNDP 2011
Poverty headcount ratio of U.S. \$1.25 a day (PPP), by percentage of population	World DataBank 2012
Economic situation of female-headed household, by comparison to male-headed household	WomanStats Project 2012
Income equality, by ratio of sex and sex of head of household	Hausmann et al. 2012; FAO 2013
Income level from agricultural activities, by sex of head of household	FAO 2013
Wage equality, by ratio of sex and relative to similar work activities	Hausmann et al. 2012; UNDP 2011; Diamond and White 2005; World Bank 2012
Type of remunerations received, by sex, labor status and activity, and sex of holder or sub-holder ^a	FAO 2013
Main sources of income, by sex of the head of household	FAO 2013
Main sources on food types, by sex of the head of household	FAO 2013
Changes in income for producers of new crops, disaggregated by sex	Diamond and White 2005
Change in household nutritional status	Diamond and White 2005
Change in women's or household's income and consumption	Diamond and White 2005
Change in women's or household's income	Diamond and White 2005
Wages for workers in new positions compared to old positions	Diamond and White 2005
Number of female and male leaders involved in living wage campaigns	Diamond and White 2005
Average sales of women-owned and men-owned export businesses by sector and size of business	Diamond and White 2005
Change in income of women engaged in "female-valued chains" measured annually	Diamond and White 2005
Annual sales for women artisans via web (ecommerce), in person, etc.	Diamond and White 2005
Annual sales from contract with super markets, disaggregated by sex of exporter	Diamond and White 2005
Salaries of workers employed in cluster, disaggregated by sex and by job category	Diamond and White 2005

Note: All are for population age 15 or older unless otherwise indicated.

The holder is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the holding operation. A sub-holder is a person responsible for managing a sub-holding on the holder's behalf. There is only one sub-holder in a sub-holding, but there may be more than one sub-holder in a holding. The holder may or may not be a sub-holder (FAO 2005)

Table B-2. Market Participation: Labor and Workforce Composition

Indicator	Source
Employment rate of children (14 years or younger), by age, sex, and time spent on education and economic activity	World Bank 2012
Employment rate within formal economy, by sex and market sectors (agriculture, industrial, services, etc.)	UN 2010; Diamond and White 2005
Labor participation rate in the formal economy, total by age, sex, and education	Hausmann et al. 2012; UN 2010; Diamond and White 2005; World DataBank 2012
Labor participation in the informal economy, by sex and participation type	WomanStats Project 2012; World Bank 2012
Labor participation gap	World DataBank 2012
Permanent or full-time nonproduction employment rate, by sex	World DataBank 2012
Permanent or full-time employment rate, by sex	World DataBank 2012
Part-time employment rate, by sex	World DataBank 2012
Full-time versus part-time employment, by sex	WomanStats Project 2012
Percentage of married workforce, by sex	WomanStats Project 2012
Level of vulnerable employment, by sex	UN 2010
Underemployment level (time-related), by sex to total	World DataBank 2012
Underemployment gap (time-related)	World DataBank 2012
Unemployment rate (overall), by sex, by education and sex, by active labor force and sex, by age and sex	World DataBank 2012
Unemployment rate, by sex and age (15 to 24 years old)	World DataBank 2012
Unemployment rate of those with primary education, by sex	World DataBank 2012
Unemployment rate of those with secondary education, by sex	World DataBank 2012
Unemployment rate of those with tertiary education, by sex	World DataBank 2012
Unemployment rate (long-term), by sex	UN 2010
Number and percentage of entrepreneurs who move into a higher part of the value chain, disaggregated by sex	Diamond and White 2005
Number of exporters entering new clusters, disaggregated by sex	Diamond and White 2005
Number of exporters in the country, disaggregated by sex	Diamond and White 2005
Number of new entrants entering small or medium enterprises sector assisted by project, disaggregated by sex	Diamond and White 2005
Number of clusters developed that present opportunities for women owners and workers	Diamond and White 2005
Number of new entrants into the "emerging opportunity" positions in the sector, disaggregated by sex	Diamond and White 2005
Number and percentage of entrants into new "un-gendered" jobs, disaggregated by sex	Diamond and White 2005
Number of new jobs created in women-only tourism ventures	Diamond and White 2005
Number of women trained to become recruiters and trainers	Diamond and White 2005
Number of applicants for tourism jobs, disaggregated by sex after more women staff are in place as recruiters	Diamond and White 2005
Number of new jobs created from backward and forward linkages, disaggregated by sex	Diamond and White 2005
Number of women telecenter entrepreneurs	Diamond and White 2005
Number of telecenter users at all times and women-only times, disaggregated by sex	Diamond and White 2005
Number of new female entrants into information communication technology training, business ownership, and/or degree programs after awareness campaign or gender-sensitive educational curricula	Diamond and White 2005

Note: All are for population age 15 or older unless otherwise indicated.

Table B-3. Market Participation: Productivity Contribution

Indicator	Source
Percentages in legislators, official, managers, professional or technical occupations, by sex	Beck 1999; UN 2010; UNDP 2011
Employers, by sex	World DataBank 2012
Firms with female participation in ownership	World DataBank 2012
Ratio of female legislators, official, managers, professional or technical occupations over male value	Hausmann et al. 2012
Ratio of female professional or technical occupations over male value	UN 2010; UNDP 2011
Self-employment or own-account workers, by sex	Diamond and White 2005; World DataBank 2012
Labor choice (number of family or hired, permanent or temporary worker) used on own holding, by sex of holder or sub-holder ^a	FAO 2013
Agro-production decision-making, by sex of the head of household, holder, or sub-holder and by product. For example, agriculture, forestry, horticulture, processing, etc. decisions on practices, expenses, activities, cultivation area, etc. ^a	FAO 2013
Agro-production, productivity, and constraint in each sector (agriculture, animal, food and cash crop, horticulture, hunting and gathering, marketing), by sex of head of household, holder, or sub-holder ^a	FAO 2013
Equal hiring/promotion practices	WomanStats Project 2012
Amount of unpaid work (domestic and socio-economic activities, other unpaid work), by sex, marital status, household type, or by sex of holding member and holder ^a	Beijing Declaration and Platform for Action 1995; FAO 2013; UNDP 2011; Diamond and White 2005; World Bank 2012; WomanStats Project 2012
Value of unpaid work	WomanStats Project 2012
Women's desire to abstain from workforce	WomanStats Project 2012
Number and percentage of participants cultivating cash crops, disaggregated by sex.	Diamond and White 2005
Number and percentage of producers who adopt new cash crops, disaggregated by sex	Diamond and White 2005
Number of economic activities developed that are home-based	Diamond and White 2005
Number of women who become engaged in new home-based economic activities	Diamond and White 2005
Analysis of time use by rural producers, disaggregated by sex.	Diamond and White 2005
Analysis of agricultural technology disaggregated by sex.	Diamond and White 2005
Quantitative change in hours of household labor by time and task allocation, disaggregated by sex	Diamond and White 2005
Number of "female-value chains" developed by sector	Diamond and White 2005
Marketing practices adopted by enterprises as evidenced by business plans, reorganization, product design, pricing and strategic linkages with other firms or sub-sectors, disaggregated by the size of enterprise and sex of owner	Diamond and White 2005
Number of women entrepreneurs involved in creation of web portal for women	Diamond and White 2005
Number of links established with fair trade organization for women's goods and annual sales from fair trade contracts	Diamond and White 2005
Number of links/contracts established with other entrepreneur to form a women's goods cluster. Annual sales from this link	Diamond and White 2005
Annual sales of handicrafts before and after tourism plan, disaggregated by sex of producer	Diamond and White 2005
Number of new female entrants into information communication technology training, business ownership, and/or degree programs after awareness campaign or gender-sensitive educational curricula	Diamond and White 2005
Change in marketing practices adopted by enterprises as evidenced by business plans, reorganization, product design, pricing, and strategic linkages with other firms or subsectors, disaggregated by the size of enterprise and sex of owner	Diamond and White 2005
Number of hours spent on collecting fuel or water before and after project initiated, disaggregated by sex	Diamond and White 2005

Note: All are for population age 15 or older unless otherwise indicated.

^aThe holder is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the holding operation. A sub-holder is a person responsible for managing a sub-holding on the holder's behalf. There is only one sub-holder in a sub-holding, but there may be more than one sub-holder in a holding. The holder may or may not be a sub-holder (FAO 2005).

Table B-4. Resource Equity: Access to Means for Increasing Economic Capacity

Indicator	Source
Monthly deposits and/or withdrawals, by sex and number of access	World DataBank 2012
Credit access, legal and de facto access	Country-specific profiles compiled by OECD Development Centre 2012
Credit access (all), by sex of borrower and position within household	FAO2013
Account at a formal financial institution, by sex	World DataBank 2012
Account usage rate for business purposes, by sex	World DataBank 2012
Account usage rate to receive government payments, by sex	World DataBank 2012
Account usage rate to receive remittances, by sex	World DataBank 2012
Account usage rate to receive wages, by sex	World DataBank 2012
Account usage rate to send remittances, by sex	World DataBank 2012
ATM usage as main mode of deposit, by sex and percentage with account	World DataBank 2012
ATM usage as main mode of withdrawal, by sex and percentage with account	World DataBank 2012
Bank agent is main mode for deposit, by sex and percentage with account	World DataBank 2012
Bank agent is main mode for withdrawal by sex and percentage with account	World DataBank 2012
Bank teller is main mode for deposit, by sex and percentage with account	World DataBank 2012
Bank teller is main mode for withdrawal by sex and percentage with account	World DataBank 2012
Check usage, by sex	World DataBank 2012
Credit card, by sex	World DataBank 2012
Debit card, by sex	World DataBank 2012
Electronic payments usage, by sex	World DataBank 2012
Financial constraints for agricultural activities, by sex of the head of household	FAO 2013
Mobile phone user rate, by sex	World DataBank 2012
Mobile phone used to pay bills, rate by sex	World DataBank 2012
Mobile phone used to receive money, rate by sex	World DataBank 2012
Mobile phone used to send money, rate by sex	World DataBank 2012
Retail store is main mode of deposit, by sex and percentage with account	World DataBank 2012
Retail store is main mode of withdrawal, by sex and percentage with account	World DataBank 2012
Source of credit, by sex of borrower and position within the household	FAO 2013
Amount of credit (separately), by sex of borrower and position within the household	FAO 2013; Diamond and White 2005
Types of loan received within past year (financial institution), by sex	World DataBank 2012
Types of loan received within past year (private lender), by sex	World DataBank 2012
Types of loan received within past year (employer), by sex	World DataBank 2012
Types of loan received within past year (family or friends), by sex	World DataBank 2012
Loan in the past year, by sex	World DataBank 2012
Types of loan received within past year (store credit), by sex	World DataBank 2012
Agricultural training and extension programs access, by sex of holder or sub-holder ^a	FAO 2013
Adoption of extension messages by sex of holder or sub-holder ^a	FAO 2013
Agriculture insurance purchase, by sex and percentage working in agriculture	World DataBank 2012
Contributing family workers, by sex and percentage of total employed	World DataBank 2012
Distance from the fields to the homestead, by sex of holder or sub-holder ^a	FAO 2013
Draught animals access, by sex of holder or sub-holder ^a	FAO 2013
Energy sources used, by sex of the head of household	FAO 2013
Internet users percentage, by sex	World DataBank 2012
Irrigation, erosion control and water harvesting structures access, by sex of holder or sub-holder ^a	FAO 2013
Mutual support group used on own holding, by sex of holder or sub-holder ^a	FAO 2013
Poverty alleviation grants recipients of vulnerable population, by sex	Beijing Declaration and Platform for Action 1995; UNDP 2011
Access to selected agricultural inputs by sex of holder or sub-holder ^a	FAO 2013
Access to selected agricultural technologies by sex of holder or sub-holder ^a	FAO 2013
Source of agricultural inputs by sex of holder or sub-holder ^a	FAO 2013

Indicator	Source
Selected tools, equipment and machineries access, by sex of holder or sub-holder ^a	FAO 2013
Toilet facilities used, by sex of the head of household	FAO 2013
Water sources used, by sex of the head of household	FAO 2013
Land ownership of women, rights or access to own	FAO 2013; Country-specific profiles compiled by OECD Development Centre 2012
Percentage of farms in individual ownership that are owned by women	BDPA 1995; UNDP 2011
Property and asset ownership (other than land), rights or access to own, by sex of ownership	FAO 2013; Country-specific profiles compiled by OECD Development Centre 2012
Percentage of houses owned by male, female, jointly held	Beijing Declaration and Platform for Action 1995; UNDP 2011
Number of new extension agents hired, disaggregated by sex	Diamond and White 2005
Number of users of technology, disaggregated by sex	Diamond and White 2005
Analysis of increased competition on prices	Diamond and White 2005
Number of new livelihood opportunities developed, disaggregated by sex	Diamond and White 2005
Number and percentage of new bank officers hired, disaggregated by sex	Diamond and White 2005
Changes in type of resources, intensity of use and need for resources, disaggregated by sex	Diamond and White 2005
Number of employees hired to manage resources, educate others about traditional knowledge or disseminate new technologies/practices, disaggregated by sex, location of hire	Diamond and White 2005
Changes in willingness to pay for environmental innovations, disaggregated by sex	Diamond and White 2005
Number of bicycle-owners, disaggregated by sex	Diamond and White 2005
Number of bus-riders on women-only buses	Diamond and White 2005
Number of women who report increased mobility after project launched	Diamond and White 2005
Number of users of water/energy, disaggregated by sex	Diamond and White 2005
Number of workers who go to legal project for assistance, disaggregated by sector and sex	Diamond and White 2005
Number of factories that adopt gender-specific codes of conduct	Diamond and White 2005
Number and percentage of workers who seek assistance at the shelter, disaggregated by sex and by reason for visit (legal, food, etc.)	Diamond and White 2005
Number of users of online customs forms, disaggregated by sex	Diamond and White 2005
Number of customs forms processed online, disaggregated by sex	Diamond and White 2005
Number of loans dispersed through funding mechanism	Diamond and White 2005
Number of clients who receive pre- and post-investment counseling	Diamond and White 2005
Number of daycares provided on-site	Diamond and White 2005
Number of centers established by geographical location	Diamond and White 2005
Number and percentage of customers at telecenters, disaggregated by sex, and telecenter location	Diamond and White 2005
Number of initiatives incorporated into project to address mobility concerns	Diamond and White 2005
Number and percentage of retrenched workers matched with new jobs, disaggregated by sex	Diamond and White 2005
Number of technology users, disaggregated by sex and geographical location	Diamond and White 2005

Note: All are for population age 15 or older unless otherwise indicated.

^aThe holder is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the holding operation. A sub-holder is a person responsible for managing a sub-holding on the holder's behalf. There is only one sub-holder in a sub-holding, but there may be more than one sub-holder in a holding. The holder may or may not be a sub-holder (FAO 2005).

Table B-5. Resource Equity: Power to Bargain Indicators

Indicator	Source
Cash earnings from employment and decision for use withheld and taken away by husband/life partner, by gender, caste/tribe, education level	UN 2010
Decision-making related to the use of household income from agricultural activities, by sex and by sex of the head of household	FAO 2013
Personally paid for health insurance, by sex	World DataBank 2012
Maternity leave benefits, by percentage of wages paid in covered period and number of weeks of leave	World DataBank 2012
Purpose of credit, by sex of borrower and position within the household	FAO 2013
Type of collateral provided for credit, by sex of borrower and position within the household	FAO 2013
Outstanding loan for funerals or weddings, by sex	World DataBank 2012
Outstanding loan for health or emergencies, by sex	World DataBank 2012
Outstanding loan for home construction, by sex	World DataBank 2012
Outstanding loan to pay school fees, by sex	World DataBank 2012
Outstanding loan to purchase a home, by sex	World DataBank 2012
Repayment period of loan, by sex of borrower and position within the household	FAO 2013
Reasons for not receiving a loan or credit, by sex of the head of household	FAO 2013
Reasons for not using agricultural implements or assets, by sex of the head of household	FAO 2013
Reasons for not using agricultural inputs by sex of holder or sub-holder ^a	FAO 2013
Saved any money in the past year, by sex	World DataBank 2012
Saved money in the past year (separately: at a financial institution and savings club), by sex	World DataBank 2012
Reasons for saving money in the past year (separately: for emergencies and expenses), by sex	World DataBank 2012
Reasons for saving money in the past year (separately: for emergencies and future expenses), by sex	World DataBank 2012
Tenure status of land used, by sex of holder or sub-holder ^a	FAO 2013
Number of women who gained or retained traditional position within the sector	Diamond and White 2005
Changes in perceptions about natural resources problems and solutions, disaggregated by sex	Diamond and White 2005
Number of people who can no longer practice traditional livelihoods after adopting new environmental practices or technology, disaggregated by sex	Diamond and White 2005
Number of reforms modified to have a gender-neutral impact, including costs and budget allocations	Diamond and White 2005
Number of reforms promoted that would benefit poor women	Diamond and White 2005
Number of those reforms that were adopted	Diamond and White 2005
Number of reforms revised or pro-poor, pro-women reforms developed by ministry staff following training	Diamond and White 2005
New gender-related language or discussions emanating from trade policymakers as newly trained staff become engaged in trade policy discussions	Diamond and White 2005
Increased involvement of gender-concerned civil society groups in trade dialogue with government	Diamond and White 2005
Number of gender-related civil society concerns included in government's trade deliberations	Diamond and White 2005
Reports of labor law violations, disaggregated by sector and sex of worker	Diamond and White 2005
Reports of gender-based labor rights violations by sector, by sex	Diamond and White 2005
Changes in knowledge, attitudes, and behaviors related to living wage campaigns	Diamond and White 2005
Number of new networks created for and by informal workers	Diamond and White 2005
Number of members of new networks, disaggregated by sex	Diamond and White 2005
Number of policy measures implemented to address costs of customs procedures and constraints of poor producers	Diamond and White 2005
Number of women's groups, associations, women leaders engaged in advocacy for pro-poor customs policy	Diamond and White 2005

Indicator	Source
Average size of loans by sector and size of business, disaggregated by sex of business owner	Diamond and White 2005
Number of women's associations created or assisted	Diamond and White 2005
Number of gender-sensitive policies implemented in areas that will assist entrepreneurs	Diamond and White 2005
Number of clients that receive loans, disaggregated by sex	Diamond and White 2005
Changes in user satisfaction with telecenters, disaggregated by sex	Diamond and White 2005

Note: All are for population age 15 or older unless otherwise indicated.

^aThe holder is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the holding operation. A sub-holder is a person responsible for managing a sub-holding on the holder's behalf. There is only one sub-holder in a sub-holding, but there may be more than one sub-holder in a holding. The holder may or may not be a sub-holder (FAO 2005).

Additional Comments on Economic Contribution Indicators and Their Comparison to USAID Indicators

Agencies originally created and measured sex-disaggregated indicators only in the interest of economic development. Improvements to these indicators eventually transformed them into gender sensitive economic indicators (CIDA 1997; Randriamaro 2006). Two characteristics allow such transformation. First, measurements of these indicators are highly standardized by early users focused on cross-national comparisons (Bericat 2012; Di Noia 2002; Dijkstra 2002; Frias 2008; Hausmann et al. 2006; Plantenga et al. 2009; Sugarman and Straus 1988; Yllö 1984). As a result, modern gender-sensitive economic indicators are also highly standardized compared to other dimensions and often allow for cross-national evaluations. Second, most gender-sensitive economic indicators are quantitative in nature, which allows agencies to readily interpret progress by measuring changes in women's contributions to the economy. Specifically, indicators can directly equate expansion of market engagement and equity of resource allocation with achievements in gender equality. Abundant data and standardization resulted in usage of economic indicators as an input or output indicator to measure intervention effectiveness in other dimensions (CIDA 1997; Jafer 2009). For example, agencies may utilize gender-sensitive head of household consumption levels as an input indicator to predict overall children health, or they may monitor women's income as an output indicator in relation to female higher education level completion rate.

Holistic studies of economic contribution indicators and their interactions can be complicated by inputs¹³ such as foreign investment, commodity concentration, and size of export economy; these inputs can drastically change gender indicator outcomes (such as labor force participation and unemployment) and may conceal or overstate measurement in progress in women's empowerment (Slusser 2009). Stotsky summarizes the relationship as follows: "[Even as] economic development is linked to an improvement in the relative status of women... the results for the measure of inequality are more ambiguous... suggesting that the factors leading to a reduction in inequality are more complex [than single-dimensional analyses]..." (2006, 31).

¹³ Slusser (2009) references each case as examples in her report and demonstrates the intricacy of each case's involvement by more detailed explanation.

A large number of USAID indicators related to women in positions of operative control or highly technical occupations is the percentage of ownership of businesses by sex of owner and by sector. USAID is interested in more detailed and technology-oriented indicators (e.g., number of women entrepreneurs involved in creation of a web portal for women or percentage of producers who adopt new cash crops). In terms of unpaid activity, USAID uses an indicator that measures changes in men's and women's workload according to time and task allocation disaggregated by sex. For resource management project evaluation, USAID also measures number of hours spent on collecting fuel and water, which are the most time-consuming tasks along with food preparation in many developing countries (Oparaocha and Dutta 2011).

USAID devotes the most indicators to measure bargaining power in many economic sectors. The agency does not measure power to bargain within households; rather, it measures loan amount averages and number of loans extended by sector, size of business, and sex of business owner. It also measures indicators that monitor organized power to bargain, such as number of women's groups, associations, and women leaders engaged in advocacy for "pro-poor customs" policy, or number of labor law violations reported.

APPENDIX C: EDUCATION INDICATORS

In the following tables, we list gender-sensitive indicators, categorized by related education topics.

Table C-1. Educational Characteristics of the Population Indicators

Indicator	Source
Adult literacy rate, by sex (15 and older)	UNESCO 1997
Adult literacy rate, by sex (15 to 24 years)	World Bank 2011
Average years of schooling of adults (15 years and older)	World Bank 2011
Apparent school intake rate, by sex (primary, secondary, and tertiary education)	UNESCO 1997
Net attendance ratio, by sex (primary and secondary education)	UNDP and UNFEM 2009
Survival rate to grade 5, by sex	World Bank 2011
Survival rate to last grade of schooling, by sex	UNESCO 1997
Completion rate, by sex (primary, secondary, and tertiary education)	World Bank 2011
Female share of graduates by field of study (percentage, tertiary)	World Bank 2011

Table C-2. Educational System Indicators

Indicator	Source
Gross enrollment ratio, by sex (primary, secondary, tertiary education)	UNESCO 1997
Net enrollment ratio, by sex (primary, secondary, tertiary education)	UNESCO 1997
Vocational and technical enrollment, by sex (percentage of total secondary enrollment)	World Bank 2011
Repetition rate, by sex (primary and secondary education)	UNDP and UNFEM 2009
Dropout rate, by sex (primary and secondary education)	UNDP and UNFEM 2009
Female teachers (percentage in primary, secondary, and tertiary education)	UNESCO 1997
Teachers trained in primary and secondary education, by sex (percentage)	World Bank 2011

Table C-3. General Education Indicators

Indicator	Source
School life expectancy, by sex (number of years of school a child can expect to receive)	UNESCO 1997
School survival expectancy, by sex (number of years of school a child already in school can expect to receive)	UNESCO 1997

Absolute Gender Gap Measurement Method Example

An absolute gender gap and a gender parity index depict disparities in different ways, and they show different values, which results in different ranking at the international level. For instance, if measured by gender gap, sub-Saharan Africa has the lowest disparity of 5.6 percentage points in secondary education whereas Eastern Asia/Oceania has the lowest disparity of 0.85 using the gender parity index (UNESCO 1997). To better track the effectiveness of education intervention, we recommend gender-equity-sensitive indicators because they integrate relative equality and mean absolute achievement.

Examples of the calculation of gender-equity-sensitive indicators for Haiti and Chad are shown below. The literacy rate in Haiti is 43 percent with 46 percent for males and 40 percent for females. In Chad, the literacy rate is 45 percent with 59 percent for males and 31 percent for females (UNESCO 1997).

For Chad:

$$\frac{1}{GESI\ lit} = \frac{0.5}{0.59} + \frac{0.5}{0.31} = 0.847 + 1.613 = 2.459$$

Where 0.5 is the approximate share of males and females on total population, therefore:

$$GESI\ lit = \frac{1}{2.459} = 0.41$$

For Haiti:

$$\frac{1}{GESI\ lit} = \frac{0.5}{0.46} + \frac{0.5}{0.40} = 1.087 + 1.250 + 2.337$$

Therefore:

$$GESI\ lit = \frac{1}{2.337} = 0.43$$

The calculation shows that Haiti ranks higher than Chad although the overall literacy rate of Chad is higher than that of Haiti.

Evaluation of Gender-Sensitive Education Indicators

The following sections evaluate gender-sensitive education indicators that we identified but did not recommend.

Average Years of Schooling of Adults

Average years of schooling measure aggregate stock of human capital available. This indicator represents a country's typical duration of school year at each grade level.

Data Accuracy and Reliability

The average years of schooling can be collected through a national census. This indicator does not take into account repetition years and dropout rates, which may misrepresent actual years of schooling students received. Moreover, changes in duration of school year may reduce data accuracy. According to UNESCO (1999), 32 countries have changed the duration of primary and secondary schooling at least once over the last three decades. As a result, this indicator may not be comparative across countries due to variation in the number of days of education children receive per year (Vos 1996).

Effectiveness in Measuring Women's Empowerment

Although the average years of schooling fails to capture repetition and dropout rates, the indicator provides a conservative estimate of how much a country has invested in education for its male and female populations. By acknowledging gender disparity in average years of education, a country could eliminate gender-neutral policies and provide greater access to education for girls. However, this indicator must be used along with other gender-sensitive indicators because equal

years of education between men and women do not necessarily equate wage equality or equal future job opportunities.

School Intake Rates

School intake rates reflect the level of access to education. These indicators show the capacity of the education system to provide access to the first grade of primary and secondary school. A high apparent intake rate shows a high degree of access to primary education. However, the rate may be overestimated as it includes over- and under-aged children entering primary school for the first time. On the other hand, net intake rate keeps record of new entrants by single years of age (World Bank 2013).

Data Accuracy and Reliability

Net intake rate gives a more precise measurement of access to education than does apparent intake rate because it excludes the over-aged and under-aged. However, many developing countries only measure apparent intake but do not keep track of net intake rate.

Effectiveness in Measuring Women's Empowerment

Intake rates are effective indicators of access to education. Net intake rate could lead to improved universal primary education for all children (Saith and Harriss-White 1998). However, apparent intake rate is a better indicator for the purpose of women's empowerment because it would include over-aged girls who are unable to enter school at their standard school-age. Net intake rate, if applied in developing countries where girls lack education opportunities, may encourage governments to focus only on school-age children and disregard older girls.

Repetition Rate and Dropout Rate

Repetition and dropout rates assess internal efficiency of the educational system and forecast flows of the education cycle. Poor test performance is not the only cause of repetition and dropout. Poor attendance and insufficient social and physical maturity also play a role. Furthermore, some students repeat grades because schools do not offer high grade levels or are incapable of accommodating more students at the time (UNESCO 2012).

Data Accuracy and Reliability

Similar to net attendance ratios, data on repetition and dropout rates cannot be collected from the population census. Rather, individual schools collect and report data. In addition to lack of standardization and general unavailability of this data, these indicators may be inaccurate and unreliable because students may repeat grades multiple times. In many cases, students who drop out may re-enter after several years.

Effectiveness in Measuring Women's Empowerment

High repetition and dropout rates among girls reflect academic failure and unsatisfactory educational progress. These indicators are useful in highlighting the

effects of gender-neutral policies and facilitating effective strategies to improve educational performance of girls.

School Life Expectancy and School Survival Expectancy

School life expectancy is the expected number of years of schooling that a child will complete including years spent repeating one or more grades. It does not measure actual educational attainment, but the level of education that the next cohort, entering the schooling system, may achieve. This indicator also compensates for late entry into the education system. The probability of a child being enrolled in school at any particular future age is assumed equal to the current enrollment ratio at that age (Central Intelligence Agency 2013). Unlike school life expectancy, school survival expectancy is the number of years of school a child already in school can expect to receive in the future (UNESCO 1997).

Data Accuracy and Reliability

The two indicators often used to measure and compare school expectancy for boys and girls rely on school enrollment and completion data. These rates may be inflated particularly in countries with high repetition rates. They are not ideal for international comparison as countries differ in grades, and the educational content as well as quality varies (Central Intelligence Agency 2013).

Effectiveness in Measuring Women's Empowerment

These indicators provide information about the capacity of the schooling system and the aggregate stock of human capital. While they forecast how enrollment rates of girls translate into years of schooling, they do not take into account the internal efficiency of an education system (UNESCO 2012). For instance, girls may have higher school life expectancy due to repetition of grades instead of completion. Other gender-sensitive education indicators should be included with these indicators to ensure the information reflects the actual educational performance of girls and is interpreted appropriately.

APPENDIX D: GOVERNANCE INDICATORS

The following tables list widely used gender-sensitive political indicators and their sources. The indicators have been divided into representation, electoral system and processes, and justice categories.

Table D-1. Political Representation Indicators

Indicator	Source
Rate at which number of local justices, prosecutors, and lawyers is increasing or decreasing, by sex	CIDA 1997
Women in decision-making positions in local government/parliament (percentage)	CIDA1997
Women in local civil service/ministries (percentage)	CIDA 1997
Union members, by sex (percentage)	CIDA 1997
Women in senior/junior decision-making positions with unions (percentage)	CIDA 1997
Frequency of attendance in planning meetings, by sex	CIDA 1997
Number of female judges, and number of female judges on Supreme Court	Corner and Repucci 2009
Number of female journalists	Corner and Repucci 2009
Number of female heads of universities	Corner and Repucci 2009
Parliamentary committees chaired by women (percentage)	Scott and Wilde
Level of confidence among female citizens that government/parliament represent their interests	Scott and Wilde 2006
Number of parliamentarians subject to gender-sensitivity training including gender budgeting	Scott and Wilde 2006
Legislation against domestic violence	Scott and Wilde 2006
Legislation on workforce/workplace issues that can affect such areas such as maternity leave	Scott and Wilde 2006
Level of confidence among women on whether the parliament is adequately addressing issues that affect women	Scott and Wilde 2006
Facilities for female prisoners who are pregnant or give birth	Scott and Wilde 2006

Table D-2. Electoral System and Processes Indicators

Indicator	Source
People eligible to vote, by sex (percentage)	CIDA 1997
Registered voters, by sex (percentage)	CIDA 1997
Voter turnout among registered females	Scott and Wilde 2006
Ratio of female to male voters in elections	UNDP 2006
Participation in public protests and political campaigning, by sex	CIDA 1997
Year women received right to vote	OECD 2012
Expenditure targeted on increasing female voter registration in electoral districts	Scott and Wilde 2006
Expenditure on special programs in civic and voter education targeted at women	Scott and Wilde 2006
Ration of female to male candidates in elections	Scott and Wilde 2006
Degree to which electoral laws facilitate or hinder the participation of women as candidates for elections or as voters	Scott and Wilde 2006
Women respondents believing the way they vote could improve their future welfare	Scott and Wilde 2006

Table D-3. Justice Indicators

Indicator	Source
Access to land, by sex	OECD 2012
Legal basis for access to justice that exists that provides equality of access to women about property rights	Scott and Wilde 2006
Right to own and have full and independent use of land and property	Corner and Repucci 2009
Access to bank loans, by sex	OECD 2012
Freedom to have full and independent use of income and assets	Corner and Repucci 2009
Full and equal suffrage	Corner and Repucci 2009
Right to participate in competitive and democratic election	Corner and Repucci 2009
Freedom to full and equal participation in civic life to influence policies and decision making	Corner and Repucci 2009
Freely enter into business and economic-related contracts and activities at all levels	Corner and Repucci 2009
Nondiscriminatory access to justice in the country at all levels	Corner and Repucci 2009
Government spending per capita of female population on programs to reduce discrimination against women	Scott and Wilde 2006
Number of support organizations devoted to women's issues and the empowerment of women that identify human rights promotion as part of their mandate	Scott and Wilde 2006
Evidence that women are aware of their rights	Scott and Wilde 2006
Prevalence measure of reported domestic violence	Scott and Wilde 2006
Women who say they have access to court systems to resolve disputes	Scott and Wilde 2006
Police stations staffed by policewomen trained to interview complainants/victims of rape or domestic violence and having separate rooms for interviewing (percentage)	Scott and Wilde 2006
Reported rape cases prosecuted in courts (percentage)	Scott and Wilde 2006
Reported cases of domestic violence prosecuted in courts (percentage)	Scott and Wilde 2006
Ration of percentage of male prisoners receiving free legal advice/percent of female prisoners receiving free legal advice	Scott and Wilde 2006

APPENDIX E: HEALTH INDICATORS

The following tables list gender-sensitive health indicators, categorized by related health fields.

Table E-1. Access and Utilization of Health Services Indicators

Indicator	Source
Number of primary health-care centers nearby, by sex	UNDP and UNIFEM 2009
Number of times that telediagnosis, imagery, and treatment is used on rural patients, by sex	USAID 2002
Number of new doctors, nurses, and nursing assistants trained and dispersed to underserved areas, by sex	USAID 2002
Median availability of selected generic medicines (percentage)	WHO 2011
Survey of illness, morbidity, and maternal and child health issues in underserved areas (prior to and after medical staff are in place)	USAID 2002
Women who have had pap smear in last three years (percentage)	U.S. Dept. of Health and Human Services 2011
Proportion of facilities offering screening services for cancer	WHO 2011
Adult population affiliated with health insurance plans, by sex	U.S. Dept. of Health and Human Services 2011
Family planning coverage in insurance plans	U.S. Dept. of Health and Human Services 2011
Number of hospital beds (per 10,000)	WHO 2011
Waiting time to receive health care, by sex	USAID 2002
Successful diagnostic rate, by sex (percentage)	USAID 2002
Patients served by doctors using personal digital assistants, by sex (percentage and ratio)	USAID 2002
Self-reported oral health status among women	U.S. Dept. of Health and Human Services 2011

Table E-2. Disease and Prevention Indicators

Indicators	Source
Leading cause of death in women aged 18 and older	WHO 2011
Leading cause of cancer death among women	U.S. Dept. of Health and Human Services 2011
Women receiving cervical cancer screenings (percentage)	WHO 2011
Communicable diseases, by sex (number, percentage)	UNDP and UNIFEM 2009
Confirmed cases of malaria (per 100,000)	WHO 2011
Cases of tuberculosis (per 100,000)	WHO 2011
Prevalence of sexually transmitted infections (chlamydia, gonorrhea, HPV infection), by sex (percentage and ratio)	World Bank 2012
Prevalence of HIV/AIDS by sex (percentage and ratio)	Murray and Newby 2012
Comprehensive knowledge of HIV	Murray and Newby 2012
Time to an AIDS diagnosis after a diagnosis of HIV infection, by sex	U.S. Dept. of Health and Human Services 2011
DPT immunization, by sex (percentage)	World Bank 2012
Measles immunization, by sex (percentage)	World Bank 2012
Hepatitis B immunization, by sex (percentage)	WHO 2011
Polio vaccination, by sex (percentage)	USAID 2002
Tetanus toxoid vaccination, by sex (percentage)	USAID 2002
Vitamin A supplementation, by sex (percentage)	USAID 2002

Table E-3. Environmental Health Indicators

Indicator	Source
People with asthma, by age and sex (percentage)	U.S. Dept. of Health and Human Services 2011
Tobacco smoke exposure	U.S. Dept. of Health and Human Services 2011
Access to sanitation and clean water by sex (percentage of population with access, urban and rural)	WHO 2011
Population using solid fuels	WHO 2011

Table E-4. Fertility and Population Growth Indicators

Indicator	Source
Birth rate	WHO 2011
Population size, total and under age 15	UNDP and UNIFEM 2009
Population median age (years)	WHO 2011
Fertility rate, rural and urban	UNDP and UNIFEM 2009
Sex ratio	World Bank 2012
Death rate and age specific death rates	UNDP and UNIFEM 2009
Life expectancy at birth, by sex	UNDP and UNIFEM 2009
Average age of mothers at birth of first child	UNDP and UNIFEM 2009
10-19,20-34, and 35-49 year –old women who are pregnant or have had at least one child (percentage and ratio)	UNDP and UNIFEM 2009
Women who have had four deliveries or more (percentage and ratio)	UNDP and UNIFEM 2009
Completeness of birth and death certificates	Pan American Health Organization 2005
Mean ideal family size	USAID 2002

Table E-5. Health-Care Management Indicators

Indicator	Source
Women's participation in health sector labor force	Pan American Health Organization 2005
Women enrolled in branches of medical sciences (percentage and ratio)	Pan American Health Organization 2005
Women graduates in branches of medical sciences (percentage ratio)	Pan American Health Organization 2005
Women's participation in unpaid work in the formal health sector	Pan American Health Organization 2005
Daily time (in minutes) dedicated to production of health services in community without remuneration, by sex	Pan American Health Organization 2005

Table E-6. Health Expenditures Indicators

Indicator	Source
Government health expenditures as percentage of gross domestic product	WHO 2011
Health expenditure per capita	World Bank 2012
Percentage of income spent on health care, by sex	UNDP and UNIFEM 2009
Increases and decreases to programs benefits women as a result of health sector reforms	USAID 2002
Social security expenditure on health (percentage of general government expenditure on health)	WHO 2011
External resources for health as a percentage of total expenditure on health	WHO 2011

Table E-7. Maternal and Infant Health Indicators

Indicator	Source
Maternal mortality ratio	WHO 2011
Under-five child mortality (with proportion of newborn deaths)	WHO 2011
Neonatal mortality rate	USAID 2002
Births with skilled attendant (percentage and ratio)	UNDP and UNIFEM 2009
Births by C-section (percentage and ratio)	WHO 2011
Exclusive breastfeeding (0-5 months of age)	WHO 2011
Infants receiving DTP3 immunizations (percentage)	WHO 2011
Birth weight, by sex	WHO 2011
Women receiving four or more antenatal care visits (percentage)	UNDP and UNIFEM 2009
Mothers receiving postnatal care within two days of birth (percentage)	WHO 2011
HIV-positive pregnant women receiving antiretroviral (percentage)	WHO 2011
Children under five years old sleeping under insecticide-treated nets (percentage)	WHO 2011

Table E-8. Mental Health and Risk Behaviors Indicators

Indicator	Source
Major depressive episode and substance abuse disorder among adults, by sex (in last year)	U.S. Dept. of Health and Human Services 2011
Suicide deaths among adults, by sex (per 100,000)	U.S. Dept. of Health and Human Services 2011
Tobacco addiction, by sex (percentage and ratio)	U.S. Dept. of Health and Human Services 2011
Alcohol consumption, by sex (percentage and ratio)	U.S. Dept. of Health and Human Services 2011
Consumption of illicit drugs, by sex (percentage and ratio)	U.S. Dept. of Health and Human Services 2011

Table E-9. Nutrition Indicators

Indicator	Source
Stunting prevalence, by age and sex (height-for-age)	World Bank 2012
Underweight prevalence, by age and sex (weight-for-age)	USAID 2002
Wasted prevalence, by age, sex (weight-for-height)	USAID 2002
People considered malnourished, by age and sex (percentage)	WHO 2011
Anemia in women of child-bearing age (percentage)	Murray and Newby 2012
Diabetes in adults age 18 and older, by sex (percentage)	U.S. Dept. of Health and Human Services 2011
Women overweight or obese (percentage and ratio)	U.S. Dept. of Health and Human Services 2011
Income spent on food, by sex (percentage)	UNDP and UNIFEM 2009
Calorie consumption as a percentage of minimum requirements, by sex	UNDP and UNIFEM 2009

Table E-10. Reproductive Health Indicators

Indicator	Source
Demand for family planning (contraception) satisfied	World Bank 2012
Unmet need for contraception (percentage of married women ages 15-49)	World Bank 2012
Contraceptive prevalence (percentage of women ages 15-49)	Murray and Newby 2012
Proportion of unsafe abortions	USAID 2012
Existence of policies to integrate sexual education in to schools	Murray and Newby 2012
Sex before age 15 years, by sex	Murray and Newby 2012
Sex with multiple partners, by sex	Murray and Newby 2012
Condom use at last sex among those with multiple partners	Murray and Newby 2012
Condom use at last higher-risk sex	Murray and Newby 2012

Table E-11. Violence against Women Indicators

Indicator	Source
Rate of domestic violence against women	Murray and Newby 2012
Rate of sexual violence against women	Murray and Newby 2012
Rate of emotional abuse among women	WHO 2011
Attitudes toward domestic violence	WHO 2011
Female genital mutilation in women ages 15-49 (percentage)	Murray and Newby 2012
Existence of programs to address harmful traditional practices such as female genital mutilation	WHO 2011

Evaluation of Gender-Sensitive Health Indicators

The following section provides an evaluation of gender-sensitive health indicators of categories not discussed in the main body of the report.

Access and Utilization of Health Services Indicators

Indicators in this category focus on prevalence and accessibility of health service facilities. These indicators demonstrate density of resources for a particular population through calculations of crude quantities of resources (e.g., the number of health-care centers in a given area, number of doctors and trained staff, and number of hospital beds). When measuring access of health services, it is also important to gauge quality of health services. This measurement is captured through indicators measuring proportion of facilities offering specialty health care, wait-time to receive service, and prevalence of technology in diagnosing and treating patients. Indicators of utilization of health services measure how often patients use health facilities for prevention efforts or to receive essential medications; they also measure ability to use health insurance to pay for services.

Data Accuracy and Reliability

Almost all indicators in this category are quantitative and use health facility reports and household surveys to collect data. Advantages of these data and indicators include demonstration of access to health services based on location as well as improvements after the addition of more health-care workers. However, these indicators lack ability to specifically measure quality, due to a lack of standardization, or effectiveness of care and staff. In addition, newer indicators (e.g., the number of times that teleradiology is used on rural patients) is not included in many surveys. Moreover, indicators in this category are used more locally and lack data availability to compare cross nationally (Pan American Health Organization 2015). Facility reports can also be problematic because of underreporting and exclusion of individuals who do not use health-care facilities. In addition, discrepancies occur when local health facility data are compiled for aggregate health service data, because each facility measures with different accuracy.

Effectiveness at Measuring Women’s Empowerment

Indicators in this category measure improvements to human resources (trained medical staff), technology, service delivery, and governance. By using data to demonstrate differences to health-care access between men and women, policymakers gain a better understanding of needs to be addressed in a

population. Women often lack access to health services because of time constraints, mobility issues, costs, and education. Improved access and utilization of health-care facilities, as demonstrated by indicators, effectively measures aspects of women's empowerment.

Fertility and Population Growth Indicators

Population structure is important for understanding development of a country. Indicators measuring fertility and population growth focus on age, household makeup, location, and life expectancies. High fertility rates have negative effects on women's health and that of their children, and are generally more common in lower-developed countries (Pan American Health Organization 2005). Life expectancy indicators represent a combination of factors that affect risk of death. In general, life expectancy for women is greater than it is for men; however, women's longevity does not necessarily mean that they enjoy better health levels (WHO 2011). All indicators in this category are quantitative and measured at the national level.

Data Accuracy and Reliability

Data on fertility and population growth come from vital statistics, population censuses, and demographic surveys. While these sources of data are generally reliable and accurate, some indicators may be misinterpreted. For example, even though women have greater longevity than men, they are exposed to more chronic diseases and disabilities (WHO 2011). Interpretation of fertility rates can also be biased as there can be differences between eventual family size and projected fertility rates (Pan American Health Organization 2005). Data sources do not measure cultural and social differences, even though both are important factors in indicators such as mean ideal family size.

Effectiveness at Measuring Women's Empowerment

Fertility indicators serve as a proxy measure of women's development and empowerment. For example, higher education levels and greater access to contraceptive methods lead to lower fertility rates. Family planning resources are a critical tool for women's empowerment as they help women avoid risk factors of early-age and late-age births. In addition to general fertility rates, the proportion of women with three or more deliveries also demonstrates women's ability to plan and space births.

Health-Care Management Indicators

Women are generally underrepresented in positions of power and decision-making capacity in the health sector (Pan American Health Organization 2005). Indicators related to health-care management measure women's enrollment in medical training and universities, participation in the health sector labor force, and involvement in specialty health fields. Indicators in this category are quantitative and measured at the national level.

Data Accuracy and Reliability

Health-care management indicators have the least accuracy and availability of data of all categories. Indicators in this category use data from university statistics, employment surveys, administrative records of services, and national records of professionals. These sources have limited existing information about the path of persons enrolled in universities and do not measure actual percentages of women who follow through with health profession or time periods work in health sector.

Effectiveness at Measuring Women's Empowerment

As women are increasing their participation in the labor market, it is important that they have a strong presence in the health sector. Women tend to enroll at higher rates in fields oriented toward the care of others, but lag in obtaining managerial positions. Health-care management indicators lack ability to effectively demonstrate women's empowerment. However, as more data become available, health and other labor force sectors must be examined to ensure fair representation of women.

Health Expenditure Indicators

Health expenditure indicators measure importance as well as relative cost of health in government and on household level. By measuring government health expenditures per capita, or as percentage of gross domestic product, indicators demonstrate the relative weight of public entities in total expenditure on health (WHO 2011). All indicators in this category are quantitative and measured at the national level.

Data Accuracy and Reliability

Data are derived from national health accounts, income and expenses surveys, and household surveys related to health. One main concern is that not all countries have or update national health accounts, which may cause unreliable data or inability to compare cross-nationally (WHO 2011). In addition, male heads of households often take income and expenses surveys even though they may lack involvement in family health-related expenses.

Effectiveness at Measuring Women's Empowerment

From the gender equity perspective, contributions to finance the health-care system should match people's economic capacity, not their differential needs or risks by sex (Pan American Health Organization 2005). Consequently, although women tend to require more health-care services, they should not have to bear the full cost burden. Increased medical needs for women directly relate social costs to maternal and reproductive health. As governments emphasize health care in their budgets, women will receive necessary financial help to lead healthy lives and improve health of future generations.

Mental Health and Risk Behavior Indicators

Mental health and risk behavior indicators measure characteristics and habits of a population, including rates of depression, suicide, and drug and alcohol consumption. Although males have higher rates of suicide and drug and alcohol abuse, rates are increasing for women. All indicators in this category are quantitative with data from vital records and surveys about health habits and behaviors.

Data Accuracy and Reliability

Surveys used to collect data for mental health and risk behavior indicators most likely have a downward bias due to the sensitive topic. Furthermore, depression is commonly undiagnosed or untreated in both men and women, and it has a negative stigma in many cultures (WHO 2011). Data cannot account for cultural influences and their role in a population's behaviors and habits.

Effectiveness at Measuring Women's Empowerment

In general, men are more associated with drug use than women. However, women are frequently affected by drug consumption when partners and family members consume illicit substances. Risk behaviors among women demonstrate possible negative health outcomes, but also show their ability to access such illicit goods. For example, alcohol abuse has been considered a male problem, but as alcohol consumption among women becomes more acceptable, it increases at a greater rate than among males (Pan American Health Organization 2005). Furthermore, smoking habits among women demonstrate women's access to financial resources and participation in the public sphere (WHO 2011).

Nutrition Indicators

Women have a greater role in food preparation and nutrition for their families. Malnutrition is one of the most important health problems affecting women because of poverty (Pan American Health Organization 2005). Effects of malnutrition in women may have detrimental consequences on health of future generations. Nutrition indicators aim to measure food consumption levels and costs to better understand access to good nutrition in a particular country. All indicators in this category are country-level and quantitative using data from vital records systems and household family health surveys.

Data Accuracy and Reliability

As most nutritional data comes from household surveys, there is a risk of under- or overestimating nutritional intake of a family. Cultural values, an important factor in eating habits and nutrition, are not measured. Countries do not use or measure the same indicators in household surveys, and thus it is difficult to have reliable data to compare cross nationally.

Effectiveness at Measuring Women's Empowerment

Women are more harmed by poor access to adequate nutrition because of their biological needs and their domestic responsibilities. Lack of an iron-rich diet is the most common form of nutritional deficiency and has a high prevalence among

women of child-bearing age (WHO 2011). Therefore, measuring such indicators related to nutrition demonstrate women's ability to not only adequately feed themselves, but also improve health of their families.

Violence against Women Indicators

Violence against women is a public health problem that is often ignored. Detrimental health consequences occur in women due to domestic violence, rape and harmful traditional practices such as female genital mutilation. Domestic violence is not limited to physical violence; it includes sexual and emotional abuse. Indicators in this category are both quantitative and qualitative and rely on data from household surveys, police reports, and health records.

Data Accuracy and Reliability

Domestic, sexual, and emotional abuse is grossly underreported to police, and often ignored by medical professionals. Even though abuse is an important factor in determining diseases and mental health issues among women, domestic abuse is often disregarded. In addition, qualitative indicators (e.g., general attitudes toward domestic violence) are difficult to measure and interpret, especially since data are not disaggregated by sex.

Effectiveness at Measuring Women's Empowerment

Women and children are the main victims of domestic abuse. Although the data often lacks accuracy and reliability, these indicators are important to monitor as they provide a basis for policy discussions. One particularly effective measure of women's empowerment is the existence of programs and laws to address domestic violence or harmful traditional practices. Many countries experience high prevalence of sexual and gender based violence, which requires specific laws and policies to provide a framework to address the problem.

APPENDIX F: MEDIA INDICATORS

This appendix contains all 207 identified gender-sensitive media indicators, disaggregated by category and source. The *equal expression of freedom of speech* category contains 13 subcategories and 122 indicators, which were collected by Freedom House, International Research and Exchange, and Reporters Without Borders. The *equal coverage in news reporting* category contains six subcategories and 37 indicators, which were collected from UNESCO and International Research and Exchange. The *equal treatment of media employees* category contains six subcategories and 48 indicators, which were collected from UNESCO.

Table F-1. Equal Expression of Freedom of Speech Indicators

Subcategory	Freedom House (2012) Indicators
Legal environment	The constitution or other basic laws contain provisions to protect freedom of the press and expression, and are they enforced
	Whether the penal code, security laws, or any other laws restrict reporting, and whether journalists or bloggers punished under these laws
	The existence of penalties for libel, and whether they are enforced
	An independent judiciary and courts that impartially judge cases concerning the media
	Freedom of information laws and whether journalists are able to use them
	Whether individuals or business entities can legally establish and operate private media outlets without undue interference
	Media regulatory bodies, such as a broadcasting authority or national press or communications council, that are able to operate freely and independently
	Freedom to become a journalist and to practice journalism. Professional groups can freely support journalists' rights
Political environment	The extent to which media outlets' news and information content is determined by the government or a particular partisan interest.
	The extent to which access to official or unofficial sources is generally controlled
	The existence of official or unofficial censorship
	Whether journalists practice self-censorship
	Whether people have access to media coverage and a range of news and information that are robust and reflect a diversity of viewpoints
	Whether local and foreign journalists are able to cover the news freely without harassment and with physical access
	Whether journalists, bloggers, or media outlets are subject to extralegal intimidation or physical violence by state authorities or other actors
Economic environment	Extent media are owned or controlled by the government, and whether ownership status influences diversity of views
	Whether media ownership is transparent, thus allowing consumers to judge the impartiality of the news
	Whether media ownership is highly concentrated and whether influences diversity of content
	Restrictions on the means of news production and distribution
	Whether high costs are associated with the establishment and operation of media outlets
	Whether the state or other actors try to control the media through allocation of advertising or subsidies
	Whether journalists, bloggers, or media outlets receive payment from private or public sources whose design is to influence journalistic content
Whether the overall economic situation harms media outlets' financial sustainability	

Subcategory	International Research and Exchange (2011) Indicators
Forms of communication are accessible	Access to a telephone
	Access to a computer
	Access to the internet
	Access to social media
Legal and social norms protect and promote free speech and access to public information	Legal and social protections of free speech exist and are enforced
	Aware of and able to exercise freedom of opinion and expression
	Licensing or registration of broadcast media protects a public interest and is fair, competitive, and apolitical
	Market entry and tax structure for media are fair and comparable to other industries
	Crimes against media professionals, citizen reporters, and media are prosecuted vigorously, but occurrences of such crimes are rare
	Law protects editorial independence of state or public media
	Libel is a civil law issue; public officials are held to higher standards, and offended parties must prove falsity and malice
	Public information is easily available; right of access to information is equally enforced for all media, journalists, and citizens
	Law does not restrict media outlets' access to and use of local and international news and news sources
Multiple news sources provide citizens with reliable, objective news	Entry into the journalism profession is free and government imposes no licensing, restrictions, or special rights for journalists
	Plurality of public and private news sources (e.g., print, broadcast, internet, mobile) exist and offer multiple viewpoints
	Citizens' access to domestic or international media is not restricted
	Media reflect the views of the political spectrum, are nonpartisan, and serve the public interest
	Independent news agencies gather and distribute news
	Private media produce their own news
	Transparency of media ownership allows consumers to judge the objectivity of news; media ownership is not concentrated in a few conglomerates
Media are well-managed enterprises, allowing editorial independence	Broad spectrum of social interests are reflected and represented in the media, including minority-language information
	Media provide news coverage and information about local, national, and international issues
	Media outlets operate as efficient and self-sustaining enterprises
	Media receive revenue from a multitude of sources
Supporting institutions function in the professional interests of independent media	Government subsidies and advertising are distributed fairly, and are governed by law, and neither subvert editorial independence nor distort the market
	Broadcast ratings, circulation figures, and internet statistics are reliably and independently produced
	Trade associations represent the interests of media owners and managers and provide member services
	Professional associations work to protect journalists' rights and promote quality journalism
	Quality journalism degree programs exist providing substantial practical experience
	Short-term training and in-service training institutions and programs allow journalists to upgrade or acquire skills
	Sources of media equipment, newsprint, and printing facilities are apolitical, not monopolized, and not restricted
Channels of media distribution (kiosks, transmitters, cable, internet, mobile phones) are apolitical, not monopolized, and not restricted	
Information and communication technology infrastructure sufficiently meets the needs of media and citizens	

Subcategory	Reporters Without Borders (2013) Indicators
Legal status of media	Existence of privately owned print press, television networks, or radio stations; radio-TV regulatory agency; or press regulatory agency
	Factors preventing the creation of independent, privately owned media
	Difficulty of launching an independent private media company
	Transparency of process for granting TV and radio licenses
	Ability for authorities to force the firing of a: public radio or TV journalist, public radio or TV executive, journalist in a private media company, private media executive
	Extent private media depend on direct or indirect state subsidies
	Equal distribution of state subsidies to private media
	Commonality of private media adjusting their content in exchange for state subsidies
	Equal distribution of government advertising
	Pressure of government to favor certain media
	Commonality of officials favoring certain media (access, interviews, etc.) because of favorable editorial policy or financial ties between politicians and media owners
Legal status of journalists	Availability of journalism training available at a professional level, with emphasis on developing the capacity for critical judgment in journalism students
	Prevalence of journalism being prohibited or discouraged for any of the following reasons: nationality, ethnic origin, social class, religion, or gender
	Extent to which members of the following groups enter media-related professions: women, members of ethnic or religious minorities, and individuals from rural areas
	Transparency of obtaining the license of professional journalist
	Transparency and fairness of accreditation procedures for foreign journalists applying to work on national territory
	Ability of journalists to cover events in person
	Prevalence in the last 12 months of any of the following actions directed at journalists by government, religious authorities, major economic interests, or interest groups: public discrediting and insults, hate speech, undermining of presumption of innocence, criticism of religious affiliation, criticism of ethnic origin, or actual or attempted physical attack
	Prevalence of journalists receiving invitations to luxury events, press trips and other benefits of all kinds that would weaken their publications' objectivity
	Prevalence of journalists being paid by someone other than their regular employer in order to influence what they write
	Ability of media professionals to form and join unions
Pluralism and editorial independence	Existence of completely independent media. That is, media whose staffs may take positions of any kind on public issues with no limits of any kind from owners or the government
	Media's reflection of opinions among members of the public
	Media's reflection of the population's language diversity
	Ability of investigative journalism to uncover matters of significance
	Government monitoring or threatening of journalists
	Ability of media to publish revelations concerning political power, major economic interests, religious or spiritual authorities, the military, police and criminal justice institutions, and organized crime
	Prevalence of journalists practicing self-censorship for fear of consequences
	Frequency of media owners' conflicts of interest being the cause of journalists' self-censorship
	Commonality of public media ignoring some news that is sensitive for the government, but which private media cover
	Concentration of media power
	Proportion of general-interest media is owned by companies with other interests in non-media sectors of the economy
	During election campaigns, prevalence of equal distribution of appearance by candidates on radio and television
	Outside of election periods, frequency of government demanding radio and television time, with no right to criticize what is said
	Ability of citizens to directly and freely contact journalists, with no government controls or monitoring
	Government influence on media staff
	Major economic interest influence on media staff
Extent to which advertisers, working with media, influence editorial policy	

Subcategory	Reporters Without Borders (2013) Indicators
Legal doctrine and practice	Existence of press freedom, freedom of information, and freedom of expression guaranteed: in the constitution, law or case law, by ratification of or adherence to international treaties
	Enforcement of aforementioned freedoms and rights
	Access to public information guaranteed by law
	Ability to obtain data when a media organization or individual journalist requests information from a public institution concerning its activities
	Existence of prior censorship or monitoring in the print press radio, or television
	Prevention by the constitution, law, or other of the public disclosure of matters of public interest
	Existence of a legal mechanism to protect the confidentiality of journalists' sources
	In practice, extent in which protection of confidential sources is threatened by political power, major economic interests, spiritual or religious authorities, the military, organized crime, police and intelligence services, judges, and prosecutors
	Frequency of laws against cybercrime violating the right to free expression and news access online
	Ability of legal mechanisms to prevent all debate about certain historic facts
	Time limit for filing a libel case arising from a press report
	Prevalence of legal action against information providers, based on what they publish, taking any of the following forms: civil law complaint, criminal prosecution for press-law violation, prosecution for lesser criminal law violation, or criminal prosecution for major criminal law violation
	Penalties imposed on information providers during the past 12 months
	Commonality of journalists being placed in temporary detention because of their professional activities
	Frequency of a journalist being informed of the charges and given access to the case file when a journalist is arrested,
	Existence of laws including opinion crimes such as blasphemy or disrespect for authority
	Existence of defamation laws and their ability to pose an obstacle to public debate
	Existence of law requiring that an individual has a right of response to a news article concerning him
Frequency of public employees, government officials, politicians or members of religious bodies enjoying a specified right of response	
Ability of authorities to punish those guilty of attacking or murdering journalists/bloggers over the last 12 months.	
Internet and technical resources	Requirement of websites to have official authorization before going online
	Availability of high-speed internet at a reasonable price for individuals who want to provide news online
	Availability of adequate printing and distribution facilities at reasonable cost for the print press. cost
	Extent to which authorities filter news content on the internet
	Extent to which news websites that reflect diversity of opinion suffer from cyber-attacks
	Government monitoring of internet users who produce independent news content online
	Government monitoring of internet users who view independently produced online news content
	Frequency of internet users facing sanctions for putting up sensitive content concerning: political power, major economic interests, spiritual or religious authorities, the military, organized crime, or police agencies

Table F-2. Equal Coverage in News Reporting Indicators

Subcategory	UNESCO 2012 Indicators
Integration of gender awareness into media practice	Existence of written gender policy with specific reference to media practices such as sourcing
	Existence of a written code of ethics that includes reference to gender presentation
	Existence of resources for gender-sensitive reporting such as stylebooks and manuals, directory of women experts in different subject areas, roster of individuals or agencies that can provide gender angles or perspectives on different subjects to help avoid sexism and adopt gender-sensitivity
	Professional staff (including editors) and managerial personnel (including board members and senior managers) made aware of and accept gender and diversity policies
	Organization and facilitation of training programs and workshops to familiarize professional staff with relevant resources such as gender policy, gender-sensitive code of ethics, and stylebook to help them integrate awareness of gender into media practice
	Existence of periodic and ongoing internal monitoring of media content to gauge effectiveness and assess outcome of gender-sensitive measures
	Internal mechanisms to provide the public with a forum for complaint and criticism about gender equality issues in content
	Publicity of gender policy and regular reporting to the public regarding institutional responsiveness to complaints or perceptions of performance on gender issues
	Adherence to gender policy relating to media content taken into account for performance appraisal and promotion rules
	Promotion of use of sex disaggregated data in journalistic content
Balanced presence of women and men in media coverage	Proportion of women and men seen, hear, or read about in new and current affairs content
	Proportion of women and men interviewed and quoted as sources of information or opinion
	Proportion of women and men appearing as spokespersons, experts, and ordinary citizens
	Percentage of stories focusing centrally or specifically on women and issues of special relevance and concern to women
Fair portrayal of women and men through elimination of stereotypes	Proportion of stories with stereotypes that are openly sexist interpretations of the characteristics and roles of women and men
	Proportion of stories with stereotypes that depict the traditional feminine and masculine characteristics and male and female roles
	Proportion of women to men portrayed as victims
	Proportion of women to men portrayed as survivors
	Percentages of stories that include a multi-dimensional representation of men and women
	Percentage of stories that contain sexist language, excluding direct quotes from a source
Coverage of gender equality and equity issues	Percentage of stories focusing on issues of gender equality or inequality
	Percentage of stories highlighting gender equality or inequality aspects of events and issues
	Percentage of time, space, and prominence given to stories highlighting gender-related issues or drawing out gender aspects of events or issues
Evidence of gender consciousness in editorial content	Percentage of gender consciousness stories on the front page
	Percentage of editorial stories on gender-related issues or gender aspects
	Percentage of stories that include sex-disaggregated data
	Evidence of accurate and holistic understanding of gender-based violence in all its forms as an internationally recognized violation of human rights
	Fair portrayal of women and men in commercial messages
	Identification of gender-based stereotypes in commercial messages
Subcategory	International Research and Exchange (2011) Indicators
Journalism meets professional standards of quality	Reporting is fair, objective, and well-sourced
	Journalists follow recognized and accepted ethical standards
	Journalists and editors do not practice self-censorship
	Journalists cover key events and issues
	Pay levels for journalists and other media professionals are sufficiently high to discourage corruption and retain qualified personnel within the media profession
	Entertainment programming does not eclipse news and information programming
	Facilities and equipment for producing and distributing news are modern and efficient
	Quality niche reporting and programming exists (investigative, economics, local, political)

Table F-3. Equal Treatment of Media Employees Indicators

Subcategory	UNESCO 2012 Indicators
Equal treatment and recognition of capacities for women and men in the workplace	Existence of gender desk or gender mainstreaming officers for monitoring and evaluation of gender equality in the workplace
	Existence of systems for monitoring and evaluation of gender equality in the workplace
	Proportion of women and men working in media organization, disaggregated by level
	Cyclical review and reporting on actions to increase women working in the newsroom
	Existence of media policies securing equal treatment with respect to gender working conditions and rights including wages and promotion opportunities
	Cyclical reviews and reporting on equal wages and promotion rates of women and men
	Proportion of women and men promoted annually and offered wage increases
	Equal conditions of employment and benefits, including pensions
	Equal and transparent recruitment practices (interview panel should be gender balanced)
	Existence of collective agreement securing equal treatment between women and men
	Alignment of all gender quality related policies to relevant articles of Convention on the Elimination of All Forms of Discrimination against Women
	Existence of human resource policies on gender, including on equal treatment
	Publicity of human resources on gender
	Media organizations facilitate the dissemination availability of labor legislation concerning equal treatment of women and men to their staff members
	Proportion of men and women staff members with part-time contracts
	Proportion of men and women with fixed-term contracts
	Proportion of men and women producing or reporting various news subjects
Specific action to increase percentage of women who produce or report various news subjects	
Cyclical review and reporting on actions to increase women's involvement in all news subjects	
Presence and participation in decision making by women	Existence and implementation of a system of monitoring and evaluating the presence and participation of women in decision-making at all levels
	Availability and promotion of training on leadership for women
	Existence of quota systems for representation of women in decision making
	Existence of affirmative actions to increase female leadership
	Proportion of women and men in membership records
	Proportion of women and men in voting presence records
	Proportion of women and men working in the organization
	Proportion of women and men in decision-making positions
Yearly evaluation of these structures to ascertain and report on women's participation in leadership and in all activities and programs	
Gender balance among decision makers within media organizations	Proportion of women in ownership, business management, and board positions
	Proportion of women holding leadership positions within media organizations
	Cyclical review and reporting on actions to ensure gender balance at decision-making levels
	Effective equal opportunity policies with comprehensive implementing measure, targeting, timeline, and monitoring mechanisms
	Specific budget to support equal opportunity policies
	Existence of specific quota system for representation of women in decision-making
	Existence of affirmative action committees to increase female presence in media at all levels
	Proportion of job announcements made in a transparent method, accessible to all employees
Reporting of performance results in relation to implementation of equal opportunities policies	
Safe working environment for women and men	Existence of facilities that take into account the different needs of women and men
	Existence and implementation of a comprehensive system that seeks to address and prevent sexual harassment in the workplace
	Alignment of media policies to relevant articles of CEDAW and action taken to address gaps
Equal pay	Comparative wages of women and men media professional for work of equal value
	Implementation of International Labour Organization's equal remuneration convention
	Transparent pay scale within the media company
	Transparent pay audits on yearly basis
	Cyclical internal and external evaluations of wages
Work-life balance	Existence and implementation of flexible working arrangements for women and men
	Access to paid maternity and paternity leave for all employees for an adequate duration
	Availability and accessibility of quality childcare support facilities for all staff members

APPENDIX G: WATCH LIST INDICATORS

The following are “watch list” education and health gender-sensitive indicators, discussed for potential use when more data are available.

Education: Net Attendance Ratio

Net attendance ratios indicate whether educational inputs lead to efficient outputs. They are a good predictor of other gender-sensitive education indicators that assess effectiveness of schools (e.g., repetition rates, dropout rates, and educational attainment). Compared to other indicators, net attendance ratios are not used widely at the international level because data are often unavailable. Attendance data are collected by individual schools or national household surveys but may not be reported to national censuses. A lack of standardized data collection across schools as well as high potential for inaccurate records—particularly in schools with poor administrations—make collecting international data for this indicator problematic and provide generally unreliable results.

Although net attendance ratio is not ideal for international comparisons, this indicator highlights the magnitude of barriers to girls’ education. Moreover, as attendance ratio reflects time spent in school, it is indicative of the amount of knowledge girls may have gained from schooling. High attendance also enhances the likelihood for school attainment and greater job opportunity.

Education: Quality of Curriculum and Learning Materials

More attention should be paid to the quality of curriculum and learning materials. An academic curriculum ought to provide basic education and specific job skills for girls to meet changing market demands. All students regardless of gender must receive quality training and be well-equipped with necessary knowledge and skills after graduation. USAID assesses effectiveness of its interventions by measuring 1) the percentage of program participants obtaining jobs related to their education or training field six months after graduation, 2) and the percentage of participants obtaining any kind of jobs (USAID 2012).

On the other hand, gender-bias in textbooks, such as those underrepresenting girls’ roles and directing girls to neglect science and mathematics while directing boys to pay less attention to reading and language skills, should be revised toward gender-neutrality (USAID 2012). Gender-neutral curriculum and textbooks promote a more girl-friendly school environment and can balance the job market by promoting equal employment opportunity for girls. Due to limitations on data availability for international comparison, international organizations do not use the quality of curriculum and learning materials as indicators. However, these qualitative indicators can be one of the most important tools in influencing girls’ education attainment, career opportunity, and social mobility, given that more data are available.

Health: Prevention, Mental Health, and Violence against Women

Data availability and reliability greatly limit health indicator use. However, as data collection methods improve, three areas of gender-sensitive health indicators should be further developed. First, indicators related to prevention efforts, such as cervical and breast cancer screenings and Vitamin A supplementation, can measure critical health interventions. Early detection of diseases allows for lower cost and life-saving interventions that greatly increase life-expectancy and overall well-being of women. Second, mental health indicators measure an important health element largely ignored, especially in developing countries. Because women are at greater risk for depression and frequency of suicide attempts is greater among women than men, reliable measures of mental health and risk behaviors are crucial. Last, violence against women indicators are an important measurement of overall treatment of women in a country or region. Abuse is an important contributing factor to women's physical and mental health, and deserves greater attention.

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