THE ENVIRONMENT AND GENDER INDEX (EGI)
2013 PILOT

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Preliminary Version—18 November 2013

"We have to move beyond the lip service of gender mainstreaming, into concrete actions...It is important to place well-defined, convention-specific strategies on gender with achievable indicators and objectives and to support governments in their efforts to implement and comply with the gender provisions of the Conventions."
—Christiana Figueres, UNFCCC Executive Secretary

Contact the EGI Team at the following website about your country's rank in the EGI, to make suggestions for the next round of the EGI, or to request technical support on gender and environment:

environmentgenderindex.org/contact

A summary version of this publication is available at environmentgenderindex.org.

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Development of the EGI and Acknowledgements

Expert Panel of the Environment and Gender Index

The EGI Expert Panel guides the EGI methodology and provides input on indicators, data sets, and other methodological choices. The 33 Members of the Expert Panel (listed below) have diverse expertise and represent multilateral institutions, governments, NGOs, and research institutions. The Expert Panel is not involved in approving the final EGI methodology.

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How to use the EGI

A summary version of this publication is available at environmentgenderindex.org.

Throughout the report, there are "send feedback" alerts with questions posed by the EGI Team. If you have information that could be used to monitor country performance and improve the data and analysis, either at the country or global level, please contact us with your answers to these questions.

There are many possible applications of the information compiled in the EGI. See below for suggestions on how to put the EGI data and information to use in your context.

If you represent a government…
- Find out your country's overall performance, and review more detailed data about your country under Country Profiles.
- Compare your country's performance with neighboring countries in your region and countries worldwide at similar economic levels.
- Identify areas for improvement, and explore those avenues internally or request guidance from the IUCN Global Gender Office (contact us at this website: environmentgenderindex.org/contact).
- Improve your country's sex-disaggregated data collection on the indicators discussed, including the variables listed in the EGI Framework, under Filling in the Data Gaps, and under Removed Indicators and Other Variables.
- Use the EGI as a source of information for your country's fulfillment of international commitments, including but not limited to the Rio Conventions, CEDAW, and the Sustainable Development Goals.

If you represent a United Nations agency, multilateral institution, or donor…
- Monitor country performance, and review issues that require further international attention in Filling in the Data Gaps.
- Consider indicators and variables in the EGI Framework, under Filling in the Data Gaps, and under Removed Indicators and Other Variables that could be included in existing monitoring frameworks and implementation guidelines for countries.
- Target funding, technical support, and other assistance to countries most in need of filling implementation and data gaps.
- Use the EGI to build political will on gender equality in the environmental sector, and to shift implementation plans accordingly.
- Use the EGI as a source of information for fulfillment of international commitments, including but not limited to the Rio Conventions, CEDAW, and the Sustainable Development Goals.

If you represent an NGO or women's organization/network…
- Find out which countries are performing well and which countries are falling behind, review more detailed data about your country under Country Profiles, and learn which variables are missing data under Filling in the Data Gaps, and under Removed Indicators and Other Variables.

- To improve accountability to international mandates, carry out advocacy with your government, or lend support on implementation of gender-environment activities and data collection.
- Use the EGI to promote transparency, accountability, and participation, including incorporating environmental concerns into gender discussions and vice versa.
- Sign up to help the IUCN Global Gender Office improve data collection in your country (contact us at this website: environmentgenderindex.org/contact).

If you represent a research or academic institution...
- Monitor country performance, and review issues that require further investigation in the EGI Framework, under Filling in the Data Gaps, and under Removed Indicators and Other Variables.
- Use the EGI to explore new global trends and research avenues.
- Share new data sets relevant to the gender-environment topic for use in the next round of the EGI.
- Review the Methodology section and Appendix and contact us (environmentgenderindex.org/contact) with any questions or comments about the methodology that we could pursue in the next round of the EGI.

Foreword

By Ellen Johnson-Sirleaf
President of Liberia

Over the last few decades, a strong sustainable development policy framework has been established, articulating the intrinsic and interlinked importance of gender equality and environmental sustainability. Recognizing and affirming the importance of women's empowerment and participation, knowledge and innovation, and powerful leadership at all levels, this framework presents a message that is clear: development is only effective with men and women united toward a more sustainable and equitable world.

In Liberia, we know this well, and we have made strides in ensuring that advancing gender equality is integrated as a driver for sustainable development. Bringing together diverse stakeholders from across sectors around the issue of climate change, for example, Liberia was among the first countries to formulate and begin to implement a gender-responsive national strategy and plan of action to tackle and build resilience to a changing climate.

And yet, tremendous gaps exist—at all levels—that hinder comprehensive progress. The information that exists to propel national policymaking and programming forward is too often limited, too frequently fragmented, and too repeatedly generic, not only in Liberia but around the globe. The lack of socioeconomically disaggregated data, for example, results in programs that may not be able to fully respond to real needs and fragilities or strengths and capacities of a nation, a community, or even a household.

What we measure is a political choice. What we fail to see—and what we, in turn, fail to respond to—sustains the status quo and jeopardizes the powerful opportunity of turning hard-fought policy commitments into real change.

Now, with the launch of this first-ever mechanism of its kind, the EGI helps measure progress in implementation, improve information, and empower countries to take steps forward for gender equality and for the environment. The EGI demonstrates that the countries that take seriously our commitments to women's rights are making real strides toward improving the wellbeing of all citizens—and our ecosystems, as well. Through the EGI, countries can see exactly where they excel and why—and where some of the persisting gaps remain.

Today, we have an opportunity to transform our world—to pursue an agenda that will eradicate poverty while at the same time enhance a framework for sustainability, resiliency and equality for generations to come. As the global community assesses profound progress made and significant challenges remaining from the Millennium Development Goals campaign—and takes a hard look at the formulation of a new set of post-2015 goals anchored firmly in means for accountability—the EGI offers a concrete ideas for the path ahead. Not only does it offer a unique opportunity for countries to examine their own progress against their peers, it shines a spotlight on the gaps—which will become gaping holes if we do not and cannot act.

Preface

By Lorena Aguilar
Global Senior Gender Adviser, International Union for Conservation of Nature (IUCN)

As with everything in life, there is a starting point—an "Aha" moment. I am often asked where we came up with the idea of developing the Environment and Gender Index (EGI). The origins of the EGI can be traced to the incredible country of Nepal. The EGI was born in the embrace of the Himalayas, which is host to the highest point on Earth, Mount Everest.

Since 2010, we have been fostering groundbreaking national policy processes called Climate Change and Gender Action Plans, or ccGAPs. In February of 2012, we were developing such a ccGAP in Nepal.

One of the steps in developing these Action Plans is to provide the participants with an analysis of the international and national legal frameworks relevant to gender and sustainable development. For example we study the international agreements within the Convention on Biological Diversity (CBD), the Convention to Eliminate All Forms of Discrimination Against Women (CEDAW), the UN Convention to Combat Desertification (UNCCD), the United Nation Environment Programme (UNEP), the UN Framework Convention on Climate Change (UNFCCC), amongst others.

After the presentation of these mandates in Nepal, one of the participants posed a striking question:

"It is incredible to hear about all the mandates that, through the years, have been incorporated into these frameworks and conventions. But what has been the impact of such mandates for us, the women on the ground, for our communities? Can you tell us if there is a mechanism or a system to monitor their implementation? Does anyone follow how the countries are fulfilling these commitments?"

That was the "Aha" moment. Decades of work flew through my mind, all the years of advocacy, negotiating texts within the UN Conventions, making a business case for gender with decision makers. I responded: *"I am afraid I do not have an answer. Such an accountability mechanism does not exist."* That night I started to think about how to create one. This dream was brought to life by a team of committed colleagues and experts. Today, we are very proud to present to the world the first instrument of its kind. While I write this, I cannot forget that the godmother of the EGI will always be the *Sagarmatha*, Mount Everest, meaning "Mother of the Universe" in Nepalese.

To learn more about the ccGAPs, see: The Art of Implementation: Gender Strategies Transforming National and Regional Climate Change Decision Making.

Acronyms

ASTI	Agricultural Science and Technology Indicators
CBD	Convention on Biological Diversity
ccGAP	Climate Change Gender Action Plan
CEDAW	Convention for the Elimination of All Forms of Discrimination Against Women
CFUG	Community Forestry User Group
CIF	Climate Investment Funds
COP	Conference of Parties
CTF	Clean Technology Fund
EGI	Environment and Gender Index
EIGE	European Institute for Gender Equality
EPI	Environmental Performance Index
FAO	Food and Agriculture Organization
FIP	Forest Investment Program
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGCA	Global Gender and Climate Alliance
GGGI	Global Gender Gap Index
GII	Gender Inequality Index
HDI	Human Development Index
HDR	Human Development Report
IPU	Inter-Parliamentary Union
IUCN	International Union for Conservation of Nature
JRC	Joint Research Center of the European Union
LSMS	Living Standards Measurement Study
MENA	Middle East and North Africa
OECD	Organization for Economic Cooperation and Development
PPCR	Pilot Program for Climate Resilience
SDC	Swiss Development Cooperation
SGP	Small Grants Programme
SPCR	Strategic Program for Climate Resilience
SREP	Scaling Up Renewable Energy Program
TZNPS	Tanzania National Panel Survey
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
WCD	Women's Carbon Standard
WEDO	Women's Environment and Development Organization
WHO	World Health Organizations
WSSD	World Summit on Sustainable Development
YCELP	Yale Center for Environmental Law and Policy

1. Introduction

In its March 2013 communiqué, the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda in Bali, Indonesia called for a "data revolution":

> "Too often, development efforts have been hampered by a lack of the most basic data about the social and economic circumstances in which people live... Stronger monitoring and evaluation at all levels, and in all processes of development (from planning to implementation) will help guide decision making, update priorities and ensure accountability."[1]

For the past two decades, governments have come together to establish international mandates ensuring that gender equality and women's empowerment are central to environmental decision-making and sustainable development. However, the lack of a mechanism to monitor and measure government progress has contributed to little or no implementation of these agreements.

Scientific measurements are and should be part of gender mainstreaming policies and programs in all spheres. Measuring and collecting gender data in the realm of environment and sustainable development would significantly bolster monitoring and evaluation efforts, promote efficiency and effectiveness, and contribute to enhanced decision-making and performance, and accountability. The quality of gender mainstreaming efforts should also be addressed, as environmental programs and policies often include gender in a token manner or as an afterthought, limited to reporting on women's participation, listing them as beneficiaries, or focusing on women as victims.

Monitoring progress can also motivate the regular application of measurement tools. Gender indicators are currently not included comprehensively in environmental monitoring and evaluation mechanisms. Simultaneously, environmental indicators are not included or featured prominently in some of the primary global gender indexes and reports, such as the Global Gender Gap Report[2], Gender Inequality Index[3], or the Social Institutions and Gender Index (SIGI)[4]. There have been recent advancements in the generation of sex-disaggregated statistics in the social, economic, and political spheres, but environmental data is rarely sex-disaggregated at the national or global level.

An independent monitoring mechanism has been missing to bridge these gaps, particularly now that governments have equipped all three of the Rio Conventions with multilateral agreements on gender equality and women's empowerment. By signing and ratifying the Conventions on biodiversity (CBD), climate change (UNFCCC), and desertification (UNCCD), governments officially committed to implement these agreements, and monitor and report on their progress. Most governments have also signed and ratified the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW). To help transform these global agreements on gender and

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[1] A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development: The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda http://www.post2015hlp.org/wp-content/uploads/2013/05/UN-Report.pdf
[2] http://www.weforum.org/issues/global-gender-gap
[3] http://hdr.undp.org/en/statistics/gii/
[4] http://www.oecd.org/document/39/0,3343,en_2649_33935_42274663_1_1_1_1,00.html#results

environment into progress for women, the IUCN Global Gender Office created the Environment and Gender Index (EGI).

1.1 The EGI's Purpose

There are a number of reasons for measuring country performance at the intersection of gender, environment, and sustainable development, including:

Implementation of global agreements
For the past 20 years, governments, women's organizations, and international institutions have worked to secure global agreements laying out concrete areas of action to achieve gender equality, women's empowerment and sustainable development. Nonetheless, governments and other institutions are struggling to integrate a gender approach in environmental decision making and facing challenges in reporting and implementing these agreements. Compiling data on country performance may provide an incentive for governments to take action and to improve national data collection and reporting.

Promoting transparency and accountability
The aim is to promote a culture of greater transparency and accountability, and to contribute to the full, effective and sustained implementation of international agreements on gender equality and women's rights. As an independent tool outside the UN system to measure government performance, the EGI can help policymakers and civil society evaluate and set new benchmarks for government progress. The ability to compare countries and regions establishes a basis for tracking changes in performance over time, and complements existing monitoring and evaluation tools and assessments.

Expanding access to environmental information
As noted by Amartya Sen and Joseph Stiglitz, "extending the right to access environmental information to more countries in the world is part of the extension of people's right to information."[5] Over the last ten years, access to environmental information has been established as a right in a number of countries, as well as incorporated into legal frameworks. The EGI expands upon the existing platform of information about institutions and services to which the public now has improved access.

Aid effectiveness
National reports often do not indicate how countries intend to promote equality between men and women. While some countries have established special budget lines for gender mainstreaming in their national plans on desertification, this often represents less than 3 per cent of the overall plan's budget. Donors may include gender in their policies, but funding may not always be allocated toward gender-responsive activities and the subsequent monitoring is limited.[6] Appropriate monitoring of activities and resources destined to gender and the environment will improve relationships between donors and governments by enhancing ownership, upward and downward accountability, transparency, harmonization, and alignment, resulting in improved aid effectiveness.

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[5] Report by the Commission on the Measurement of Economic Performance and Social Progress 2010 http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf
[6] Humanitarian Response Index 2011: Addressing the Gender Challenge http://daraint.org/humanitarian-response-index/humanitarian-response-index-2011/

Measurement is possible

The EGI is a data driven exercise, demonstrating that measurement is possible. It may be a challenge to measure, quantitatively or qualitatively, the impact of countries' international commitments on the attainment of gender equality or women's empowerment. However, it is possible to measure how these international commitments translate into policy or programming at the national or sub-national level. Although there are substantial efforts that link gender and environment, including interventions that are and are not effective, there is limited "hard" data compiled in one place.

1.2 The EGI's Audience

There is a broad audience interested in the EGI data. Governments—including environment, women's, and all ministries and departments, as well as parliamentarians and local authorities—will use the EGI to monitor and improve their progress. Civil society, particularly environmental and women's organizations, will use the EGI to hold governments accountable to their commitments. The Convention Secretariats and CEDAW Committee, donors, multilateral institutions, UN agencies, academic institutions, and the media will use the EGI to analyse performance trends and guide future direction.

2. Gender and Environment

Gender is a distinguishing factor in determining human relationships with the environment. Women and men have different responsibilities, knowledge, and needs in relation to natural resources. Compounding this is a set of socially constructed determinants contributing to women's disempowerment: insecure land and tenure rights; obstructed access to natural resource assets; limited opportunities for participating in decision-making; lack of access to markets, capital, training, and technologies; and the double burden of responsibilities inside and outside the household. The result is a lost opportunity—gender equality could open the door to greater strides in many aspects of natural resource management and sustainable development—as well as the broad reality of gender-blind decision making that further entrenches hardships for women.

Gender equality and women's empowerment are prerequisites for sustainable development. Women make up the majority of farmers, but only 1% of them worldwide own land. Women often have tremendous experience adapting to climate change, but they do not sit at the decision-making tables. And women throughout Africa, Asia, and Latin America are poised to lead in small-scale energy entrepreneurship, but the world's financing mechanisms do not yet reach them.

IUCN's approach is two-fold. First—to expose the inequalities that exist for women around the world in the areas of biodiversity, climate change and disasters, energy, fisheries, agriculture, and other environment-related sectors. And second—to demonstrate that women are agents of change and leaders in the environmental arena, and to open opportunities that advance their role.

Below are some of the key international agreements on gender, environment, and sustainable development to which governments have committed.

Table 1: Key international agreements on gender, environment, and sustainable development	
United Nations Framework Convention on Climate Change (UNFCCC) The Convention was adopted in May 1992, and opened for signature a month later at the UN Conference on Environment and Development in Rio de Janeiro, Brazil. It entered into force in March 1994.	Adopts a goal of gender balance in bodies established pursuant to the Convention and the Kyoto Protocol, in order to improve women's participation and inform more effective climate change policy that addresses the needs of women and men equally. Calls on the national adaptation plan process to be gender-sensitive. Calls on the Green Climate Fund to promote environmental, social, economic, and development co-benefits and take a gender-sensitive approach.

United Nations Convention to Combat Desertification (UNCCD) In June 1994 the UNCCD was open for signature by national governments; implementation began in 1996. In March 2011 the UNCCD developed a Gender Advocacy Policy Framework.	Stresses the important role played by women in regions affected by desertification and/or drought, particularly in rural areas of developing countries, and the importance of ensuring the full participation of both men and women at all levels. Calls for national action programs that increase the participation of local populations and communities, including women, farmers and pastoralists, and delegation to them of more responsibility for management.
United Nations Convention on Biological Diversity (CBD) In 2012 a request was made to the Secretariat of the Convention to update the current Gender Plan of Action (2008–2012) to 2020, taking into consideration the Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets.	Promotes women's knowledge and practices in the conservation and sustainable use of biological diversity in the agricultural sector. Promotes gender-specific ways in which to document and preserve women's knowledge of biological diversity. Calls for gender balance in various bodies. Points to the gender and cultural impacts of tourism.
Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) The principal instrument for the protection of women's rights is the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) adopted in 1979 by the General Assembly of the United Nations (UN). An Optional Protocol to CEDAW was adopted in 1999 and came into effect in 2000.[7]	Ensures women the opportunity to represent their Governments at the international level and to participate in the work of international organizations; Ensures equal rights to bank loans, mortgages and other forms of financial credit; Ensures that women in rural areas can participate in and benefit from rural development; participate in development planning at all levels; obtain training, education, and extension services; have access to agricultural credit and loans, marketing facilities, appropriate technology; and are treated equally in land, agrarian reform, and land resettlement schemes.
Agenda 21 Agenda 21 was adopted at the United Nations Conference on Environment and Development, in Rio de Janeiro in 1992.	Chapter 24, entitled *Global Action for Women towards Sustainable Development*, calls upon governments to make the necessary constitutional, legal, administrative, cultural, social and economic changes in order to eliminate all obstacles to women's full involvement in sustainable development and in public life. Agenda 21 recognizes the importance of the knowledge and traditional practices of women, and underscores the contribution women have made to biodiversity conservation.

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[7] As of April 2007, CEDAW had been ratified by 185 countries http://www.ohchr.org/english/law/cedaw.htm. The CEDAW Optional Protocol establishes procedures whereby women may file complaints requesting investigation of violations of rights. As of July 2007, 88 countries had ratified the Optional Protocol to CEDAW.

World Summit on Sustainable Development (WSSD) The WSSD Plan of Implementation was adopted in Johannesburg in 2002.	Calls for mainstreaming gender perspectives in all policies and strategies, the elimination of all forms of discrimination against women and the improvement of the status, health and economic welfare of women and girls through full and equal access to economic opportunities, land, credit, education and health-care services.
Rio+20 The Future We Want was adopted in Rio de Janeiro in June 2012.	Affirms that green economy policies in the context of sustainable development and poverty eradication should enhance the welfare of women and mobilize the full potential and ensure the equal contribution of both women and men. Resolves to unlock the potential of women as drivers of sustainable development, including through the repeal of discriminatory laws and the removal of formal barriers. Commits to actively promote the collection, analysis and use of gender sensitive indicators and sex-disaggregated data.
Millennium Development Goals	The Declaration assures equal rights and opportunities for women and men; promotes gender equality and the empowerment of women as effective ways to combat poverty, hunger and disease, and to stimulate development that is truly sustainable; and ensures that the benefits of new technologies, especially information and communication technologies…are available to all.
Commission on the Status of Women The 52nd session of the Commission on the Status of Women (2008) identified gender perspectives on climate change as its key emerging issue.	Urged governments to integrate a gender perspective in the design, implementation, monitoring and evaluation and reporting of national environmental policies, strengthen mechanisms and provide adequate resources to ensure women's full and equal participation in decision making at all levels on environmental issues, in particular on strategies related to climate change and the lives of women and girls.
Fourth World Conference on Women Two documents emerged from the IV World Conference on Women in 1995: the Beijing Declaration and Platform for Action.	Called for the active involvement of women in environmental decision making at all levels, the integration of gender concerns and perspectives in policies and program for sustainable development, and to strengthen or establish mechanisms at the national, regional and international levels to assess the impact of development and environmental policies on women.

3. Methodology and Data

3.1 Methodology Overview

The Environment and Gender Index (EGI) assesses the conditions for gender equality and women's empowerment in the environmental arena using 27 indicators divided into 6 categories for 72 countries. The goal of the EGI is to measure progress, improve information, enhance policy and program development, and ultimately empower countries to take steps forward for gender equality and for the environment. With the EGI, governments and institutions are better equipped to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The EGI Team consulted widely with experts on environmental issues, gender, agriculture and health, education, and many other topics working for international organizations, NGOs, universities and other research institutes to identify factors that facilitate or serve as barriers to gender equality and women's empowerment in the environmental and sustainable development arena.

The EGI Expert Panel highlighted a number of relevant themes to include in the index such as indigenous women's rights, women's time use, and women's land ownership. However, though we did find reports and other descriptive materials, the quantitative data was simply not available. In some cases, limited data was available but only for a small group of countries. Please see the Appendix for the list of removed variables, and the list of data sets that were not comprehensive enough for use in the index.

As the first ever index to bring environment and gender variables together, the EGI Team has been ambitious, resourceful and innovative in its approach. Early on, the decision was made to fill some of the most glaring data gaps by creating seven new datasets.

Three of these new datasets assess the previously unmeasured aspects of gender inclusion in reports to the Rio Conventions (UNFCCC, UNCCD, and CBD) while the fourth new indicator assesses the inclusion of sustainable development and environmental topics in CEDAW reports. Developing these new indicators was a challenging undertaking requiring the careful analysis of thousands of pages of reports most often written in English but also written in Spanish, French, Portuguese, Russian and Arabic.

The final three data sets were compiled to assess the participation of women in government delegations to the three Rio Conventions. For each country, the official list of participants published by the UNFCCC, UNCCD and CBD was used to calculate the female to male ratios in the delegations to Conferences of Parties (COPs).

In addition, the EGI includes two novel datasets developed by other researchers and not yet published at the time of access: the first are revised and updated measures for solid fuel use while the second measures women with anemia. The percentage of households using solid fuels provides critical insights from both a gender and environmental perspective. Solid fuel use contributes to severe health problems for women and children, the collection of firewood is a time burden for women, and the harvesting of fuel wood may contribute to deforestation. We are

very grateful to Kirk Smith at the University of California, Berkeley for providing us with this dataset. We also gained access to the most recent longitudinal data for women with anemia (1990-2012) from the World Health Organization (WHO). This measure acts as a proxy of women's baseline health. We are very grateful to Gretchen Stevens and her colleagues at the WHO for providing us access to this dataset.

3.2 Scoring Criteria and Categories

After an initial period of researching and identifying relevant themes, the process of developing the index framework was strongly based on the availability of comparative data from internationally recognized datasets or through the newly created data sets. Within these parameters, the final categories and indicators were selected by the EGI Team in consultation with the Expert Panel. In addition, a pre-audit of the Index conducted by the European Commission's Joint Research Center (JRC), provided useful feedback in refining the final index categories so that they would be both statistically and conceptually sound. This resulted in a final index divided into six categories based on a total number of 27 indicators.

The overall EGI score for each country is based on the weighted averages of the six categories and scaled from 0 -100, where 100 = the most favorable conditions for gender equality and women's empowerment in the environmental arena. The categories and indicators are as follows:

Category 1: Livelihood
This category provides a base line indication of a country's abilities to meet the fundamental needs of its population. Little sex-disaggregated data is available for this issue but we were able to include a longitudinal assessment[8] of women's health as proxied by the percentage of women without anemia. The six indicators included in this category are:
1. Less poverty
2. Food adequacy
3. Fewer women with anemia
4. Less solid fuel use
5. Improved water
6. Improved sanitation

Category 2: Ecosystem
This category focuses on presenting the specific factors related to environmental preservation, sustainability and resource use. No sex-disaggregated data was available for this category but we were able to include three indicators that provide insights into a country's commitment to environmental sustainability and conservation:
1. Biodiversity preservation
2. Critical habitat protection
3. Higher quality forests

Category 3: Gender-based Rights and Participation
This category specifically addresses a country's commitment to gender equality as well as the ability of women to engage in leadership and decision-making roles:
1. Equal legal rights
2. CEDAW ratification
3. Women in COP delegations

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[8] Longitudinal data averages are less susceptible to single year sampling errors or fluctuations.

4. Women managers, legislators and senior officials
5. Women in policy-making positions

Category 4: Governance
This category assesses the effectiveness of a country's fundamental institutional capacities as well as the ability of its citizens to participate freely in the political process. It contains the following three indicators:
1. Civil liberties
2. Political stability
3. Property rights

Category 5: Gender-based Education and Assets
This category focuses on equal access for women to basic education and resources. Access to these fundamental resources provides women with the tools, skills and preparation to effectively engage in environmental decision-making and resource use and access. It includes the following six indicators:
1. Access to agricultural land
2. Access to property
3. Access to credit
4. Women with bank accounts
5. Female post primary education
6. Female literacy

Category 6: Country-Reported Activities
This category includes four indicators created by the EGI team that assess a country's inclusion of gender in Conference of Parties (COPs) reports as well as a country's inclusion of environmental sustainability in CEDAW reports. It include the following 4 indicators:
1. Inclusion of gender in UNFCCC reports
2. Inclusion of gender in UNCCD reports
3. Inclusion of gender in CBD reports
4. Inclusion of sustainable development topics in CEDAW reports

Please see the Appendix for more detailed indicator descriptions, removed indicators, and other variables of interest.

3.3 Data and Country Selection

Data for the quantitative indicators was drawn from national and international statistical sources. Where quantitative data was missing on an individual country basis, the EGI team provided estimates (further discussed in Appendix). In addition to the seven new data sets compiled by the EGI team and the two new external data sets already discussed, the main data sources used were drawn from the World Bank, Food and Agriculture Organization (FAO), United Nations Children's Fund (UNICEF), United Nations Educational, Scientific, and Cultural Organization (UNESCO), Environmental Performance Index (EPI), World Health Organization (WHO), Inter-Parliamentary Union (IPU), Freedom House, and national statistical offices.

Country selection was based on four main considerations: 1) the availability of Rio Convention and CEDAW reports; 2) a balanced representation of regions, income and development levels; 3) an adequate availability of data for the additional indicators used; and 4) consideration of countries that are perceived to invest in gender in the environmental sector. This resulted in an initial list of 81 countries but data limitations made it impossible to include nine of the smaller,

less-developed countries that were on our original list, including Cape Verde, Djibouti, Equatorial Guinea, Eritrea, Guinea Bissau, Myanmar, Papua New Guinea, Timor Leste, and Tuvalu.

Thus our final country list includes the following 72 countries:

1. Algeria
2. Argentina
3. Armenia
4. Australia
5. Bangladesh
6. Benin
7. Brazil
8. Burkina Faso
9. Burundi
10. Cameroon
11. Canada
12. China
13. Congo Democratic Republic of
14. Congo, Republic of
15. Costa Rica
16. Denmark
17. Dominican Republic
18. Egypt
19. Ethiopia
20. Fiji
21. Finland
22. France
23. Gabon
24. Gambia
25. Georgia
26. Ghana
27. Greece
28. Iceland
29. India
30. Indonesia
31. Italy
32. Jamaica
33. Jordan
34. Kenya
35. Kyrgyzstan
36. Lao
37. Lebanon
38. Liberia
39. Madagascar
40. Malawi
41. Mali
42. Mauritania
43. Mexico
44. Moldova, Republic
45. Mongolia
46. Morocco
47. Mozambique
48. Nepal
49. Netherlands
50. Norway
51. Pakistan
52. Panama
53. Philippines
54. Poland
55. Portugal
56. Romania
57. Saudi Arabia
58. South Africa
59. Spain
60. Sri Lanka
61. Sweden
62. Switzerland
63. Syria
64. Tajikistan
65. Tanzania, United Republic of
66. Thailand
67. Turkey
68. Uganda
69. United States
70. Uzbekistan
71. Viet Nam
72. Yemen

Figure 1: The 72 Countries (in blue) Included in the EGI

Both developing and developed countries are included together in the EGI Index. In many respects, this complicated our access to data since a number of international organizations such as the OECD do not collect comparable data for OECD and non-OECD countries.

3.5 Indicator Construction and Data Modeling

Once the index framework was established, the chosen indicators were prepared for comparative analysis. The first step was to clean the 'raw datasets' noting missing values and any data inaccuracies or inconsistencies. Where longitudinal data was available (such as for women without anemia) single values were calculated based on longitudinal averages. The next step was to normalize the data. Indicator scores are normalized and then aggregated across categories to enable a comparison of broader concepts across countries. The process of normalization rebases the raw indicator data to a common unit so that they can be aggregated. For the indicators where a higher value that indicates a more favorable result —such as the percentage of women in COPs delegations or the percentage of women in policy-making positions—these values have been normalized on the basis of:

$x = (x - Min(x))/(Max(x) - Min(x))$

where Min(x) and Max(x) are, respectively, the lowest and highest values in the 72 countries for any given indicator. The normalized value is then transformed from a 0 - 1 value to a 0 - 100 score to make it directly comparable with other indicators. This in

effect means that the country with the highest original value will score 100 and the country with the lowest original value will score 0.

For the indicators where a high value indicates an unfavorable condition—such as the percentage of women with anemia or the percentage of solid fuel use—the normalization function takes the form of:

$$x = (x - MAx(x))/(MAx(x) - Min(x))$$

where Min(x) and Max(x) are, respectively, the lowest and highest values in the 72 countries for any given indicator. The normalized value is then transformed into a positive number on the scale of 0 - 100 to make it directly comparable with other indicators.

3.6 Calculating and Weighting the EGI

The weighting of a composite index is a subjective process. Though a number of statistical estimation options exist, expert opinions play a critical role in weighting an index so that it reflects the realities being measured. In the EGI, two main considerations were used in determining the weights for our index: input from our expert panel combined with the reliability and relevance of the indicators for the six index categories.

After reviewing the framework and indicators, a number of the expert panelists stressed the importance of giving extra weights to indicators in three categories: Livelihood, Gender-Based Rights and Participation and Gender-Based Education and Assets. As a result, these three categories received higher weights. In addition, we gave a higher weight to the 'Governance' category since the three indicators within this category measure the ability of a country's institutional structure to effectively support progress in the area of gender equality and women's empowerment.

The remaining two EGI categories: Ecosystem and Country-Reported Activities received lower weighting. Even though the Ecosystem category is very important to the EGI index, the complete lack of sex-disaggregated data for women's access, influence and decision making roles in biodiversity, sustainability, forestry, agriculture and fisheries meant that the indicators used were quite distant 'proxies' for what the EGI ideally intends to measure. Furthermore, given the experimental nature of the four newly created indicators included in the Country-Reported Activities category, this category was given a lower weight.

Therefore the six categories were weighted as follows:

Livelihood	20%
Ecosystem	10%
Gendered Rights and Participation	20%
Governance	20%
Gendered Education and Assets	20%
Country-Reported Activities	10%

Total	100%

3.7 Summary of EGI Audit

The European Commission's Joint Research Center (JRC) conducted both a preliminary and extensive final index audit of the EGI. The JRC's complete audit report is presented in the Appendix. The following is an excerpt from the final audit:

> Overall, the EGI country ranks are fairly robust to methodological assumptions related to the estimation of missing data and to small variations in the weights assigned to the six categories. More specifically, the EGI rank is close to the median rank (less than 2 positions away for 95% of the countries) and the confidence intervals for the majority of the country ranks are narrow enough to allow for meaningful inferences to be drawn regarding the country benchmarking (less than ± 2 positions for almost 70% of the countries).

> Despite the many challenges inherent in this exercise, from defining the concept itself to rendering it analytically tractable, the Environment and Gender Index seems to be a tool in the right direction. The added value of the EGI, which was developed using international quality standards and tested using state-of-the-art statistical analyses, lays in its ability to summarize different aspects of gender equality within the context of global environmental governance in a more efficient and parsimonious manner than what is possible with a collection of relevant indicators taken separately.

> Nevertheless, the validity of the EGI does not merely depend on its statistical soundness but also on its acceptance by the community of peers. Our general suggestion is to consider EGI as a useful step to inform research policymakers in a learning-by-comparing exercise, which is what benchmarking is about, but also as a preliminary step in the ongoing debate on how to measure gender equality within the context of global environmental governance. In this respect, the EGI should remain open to constructive criticism and could be refined within two of its six categories, Ecosystem and Country reported activities. This refinement would be instrumental in bringing the EGI to its full potential.

The methodology outlined above resulted in the creation of the EGI Framework, which is presented below.

Figure 2: The EGI Framework (6 Categories and 27 Indicators)

ECOSYSTEM
- Biodiversity preservation
- Critical habitat preservation
- Higher quality forests

GENDER BASED RIGHTS + PARTICIPATION
- Equal legal rights
- Women in COP delegations
- Women in policy-making positions
- CEDAW ratification
- Women managers

GENDER BASED EDUCATION + ASSETS
- Women with bank accounts
- Access to agricultural land
- Female post primary education
- Access to credit
- Access to property
- Female literacy

GOVERNANCE
- Civil liberties
- Political stability
- Property rights

LIVELIHOOD
- Less poverty
- Food adequacy
- Improved water
- Fewer women with anemia
- Improved sanitation
- Less solid fuel use

COUNTRY REPORTED ACTIVITIES
- Inclusion of gender in UNFCCC reports
- Inclusion of gender in UNCCD reports
- Inclusion of gender in CBD reports
- Inclusion of sustainable development topics in CEDAW reports

4. Results and Analysis

This section highlights the major results of the EGI, including country performance globally, country performance by region and economic group, and the subsequent policy implications drawn by the EGI Team.

4.1 Country Performance

The overall ranking of the 72 countries included in the EGI is listed below, with color-coding by region/group.

Table 2: Strongest, Moderate, and Weakest Performers Among 72 Countries

STRONGEST PERFORMERS			MODERATE PERFORMERS			WEAKEST PERFORMERS		
1	Iceland	0.84	19	Costa Rica	0.69	45	Jordan	0.49
2	Netherlands	0.83	20	Argentina	0.68	46	India	0.49
3	Norway	0.81	21	Mexico	0.67	47	Burkina Faso	0.48
4	Sweden	0.81	22	Romania	0.66	48	Tajikistan	0.48
5	France	0.80	23	Jamaica	0.66	49	Morocco	0.47
6	Finland	0.80	24	Brazil	0.66	50	Kenya	0.47
7	Canada	0.79	25	Mongolia	0.66	51	Laos	0.47
8	Spain	0.79	26	Philippines	0.60	52	Egypt	0.47
9	Denmark	0.78	27	Georgia	0.60	53	Nepal	0.47
10	Australia	0.78	28	Viet Nam	0.59	54	Liberia	0.47
11	Switzerland	0.77	29	Thailand	0.59	55	Mozambique	0.45
12	Poland	0.77	30	Turkey	0.58	56	Saudi Arabia	0.45
13	Portugal	0.75	31	Moldova	0.58	57	Benin	0.44
14	USA	0.73	32	Dominican Republic	0.57	58	Madagascar	0.44
15	Greece	0.73	33	Indonesia	0.56	59	Algeria	0.44
16	Italy	0.72	34	China	0.55	60	Bangladesh	0.43
17	Panama	0.70	35	Kyrgyzstan	0.54	61	Gambia	0.42
18	South Africa	0.70	36	Malawi	0.54	62	Uganda	0.41
			37	Armenia	0.54	63	Cameroon	0.40
			38	Sri Lanka	0.53	64	Mali	0.40
			39	Uzbekistan	0.51	65	Congo	0.39
			40	Fiji	0.51	66	Ethiopia	0.38
			41	Ghana	0.51	67	Pakistan	0.38
			42	Lebanon	0.50	68	Burundi	0.37
			43	Gabon	0.50	69	Syria	0.37
			44	Tanzania	0.50	70	Mauritania	0.37
						71	Yemen	0.31
						72	Dem Rep Congo	0.27

KEY:
- OECD Countries
- Latin America and Caribbean
- Africa
- Eurasia
- Asia
- Middle East and North Africa (MENA)

The following table highlights countries that stand out in their performance on specific categories or indicators, either globally or regionally.

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Table 3: Highlights of Country Performance

Rank	Country	Why this country stands out
1	Iceland	Top performer in most categories, and lower performance on women in COP delegations; female managers, senior officials, and legislators; and country-reporting on CBD and CEDAW.
4	Sweden	Top performer on women in policy-making positions, and lower performance on biodiversity protection and country-reporting.
8	Spain	Highest percentage of women in COP delegations, and lower performance on protection of property rights.
12	Poland	Ranks highest worldwide in ecosystem category, and lowest in livelihood category for OECD countries.
14	USA	Highest performance on percentage of women without anemia, and lower performance equal to Greece and Bangladesh on women in policy-making positions.
19	Costa Rica	In Latin America and Caribbean region, ranks highest for governance, lowest on women in COP delegations, and lowest for country-reported activities.
20	Argentina	In Latin America and Caribbean region, ranks highest on women in COP delegations and in the gender-based education and assets category, and lowest in the governance category.
21	Mexico	In Latin America, ranks much higher on country-reported activities compared to others in region, and low on women with bank accounts.
22	Romania	Highest performer on women delegates to UNFCCC COP18 (2012)
23	Jamaica	Ranks highest worldwide on women legislators, managers and senior officials, and ranks lowest in the region for gender-based rights and participation.
25	Mongolia	Top performer in Asia region, performs extraordinarily well globally, and very low on women in policy-making and protection of property rights.
26	The Philippines	Highest performance regionally on women legislators, managers, and senior officials and for the gender-based rights and participation category.
28	Viet Nam	Top performer on percentage of women without anemia. In Asia region, top performer for livelihood and gender-based education and assets categories.
39	Uzbekistan	Among the highest performers on percentage of women in COP delegations, and the lowest worldwide on country-reported activities.
42	Lebanon	Highest percentage of women in COP delegations, and low performance for women as legislators, managers, and senior officials.
54	Liberia	Scores in top tier of access to credit, land, and property (equivalent to same legal rights as men).
55	Mozambique	Highest performer globally on women delegates to CBD COP11 (2012)
57	Benin	Ranks highest in ecosystem category in Africa, and lowest in gender-based education and assets category worldwide.
58	Madagascar	In the Africa region, scores highest in gender-based education and activities and lowest on livelihood.
71	Yemen	In MENA region, at top of country-reported activities, and at the bottom for female secondary education, female managers, and the livelihood category.
72	Democratic Republic Congo	Scores low on all variables, except high on forest stock change, equal legal rights, and CEDAW ratification.

The following table presents the highest and lowest performers in each region/group, and the top category for each region/group.

Table 4: Highest and Lowest Performers by Region/Group, and Top Category for Region/Group

Region/group	Highest performer	Lowest performer	Top category for region/group
Latin America and Caribbean	Panama	Dominican Republic	Livelihood and Gender-based Education & Assets
Eurasia	Romania	Tajikistan	Livelihood
Asia	Mongolia	Pakistan	Ecosystem and Gender-based Education & Assets
Middle East and North Africa	Lebanon	Yemen	Livelihood
Africa	South Africa	DRC	Ecosystem
OECD Countries	Iceland	Italy	Livelihood and Gender-based Education & Assets

The table below provides additional detail—the highest and lowest performers for each of the 6 categories of the EGI in each region/group.

Table 5: Country Performance in each Region by Category

Region	Category	Highest performer	Lowest performer
Latin America and Caribbean	Livelihood	Argentina	Panama
	Ecosystem	Panama	Dominican Republic
	Gender-based Rights & Participation	Argentina	Jamaica
	Governance	Costa Rica	Argentina
	Gender-based Education & Assets	Argentina	Dominican Republic
	Country-reported Activities	Mexico	Costa Rica
Eurasia	Livelihood	Turkey	Tajikistan
	Ecosystem	Romania	Armenia
	Gender-based Rights & Participation	Kyrgyzstan	Turkey
	Governance	Romania	Uzbekistan
	Gender-based Education & Assets	Romania	Kyrgyzstan
	Country-reported Activities	Kyrgyzstan/Turkey	Uzbekistan
Asia	Livelihood	Thailand	Lao
	Ecosystem	Thailand	Fiji
	Gender-based Rights & Participation	The Philippines	Bangladesh
	Governance	Mongolia	Lao
	Gender-based Education & Assets	Mongolia	Pakistan
	Country-reported Activities	India	Fiji
Middle East and North Africa	Livelihood	Jordan	Yemen
	Ecosystem	Egypt	Syria
	Gender-based Rights & Participation	Lebanon	Saudi Arabia
	Governance	Jordan	Syria
	Gender-based Education & Assets	Algeria	Yemen

Africa	Country-reported Activities	Yemen	Saudi Arabia
	Livelihood	South Africa	Madagascar
	Ecosystem	Benin	Liberia
	Gender-based Rights & Participation	South Africa	Mauritania
	Governance	South Africa	DRC
	Gender-based Education & Assets	Madagascar	Benin
OECD	Country-reported Activities	Kenya	Gabon
	Livelihood	US	Poland
	Ecosystem	Poland	Portugal
	Gender-based Rights & Participation	Spain	Switzerland
	Governance	Finland	Greece
	Gender-based Education & Assets	Denmark	Greece
	Country-reported Activities	Iceland	Italy

The following charts compare the EGI results to the Gender Inequality Index (GII), Global Gender Gap Index (GGGI), Gross Domestic Product per capita (GDP), and the Environmental Performance Index (EPI). These charts show that the EGI results are relatively in line with these other indexes.

Figure 3: EGI Comparison to Gender Inequality Index (GII)

EGI Comparison to Gender Inequality Index (GII)

$R^2 = 0.73776$
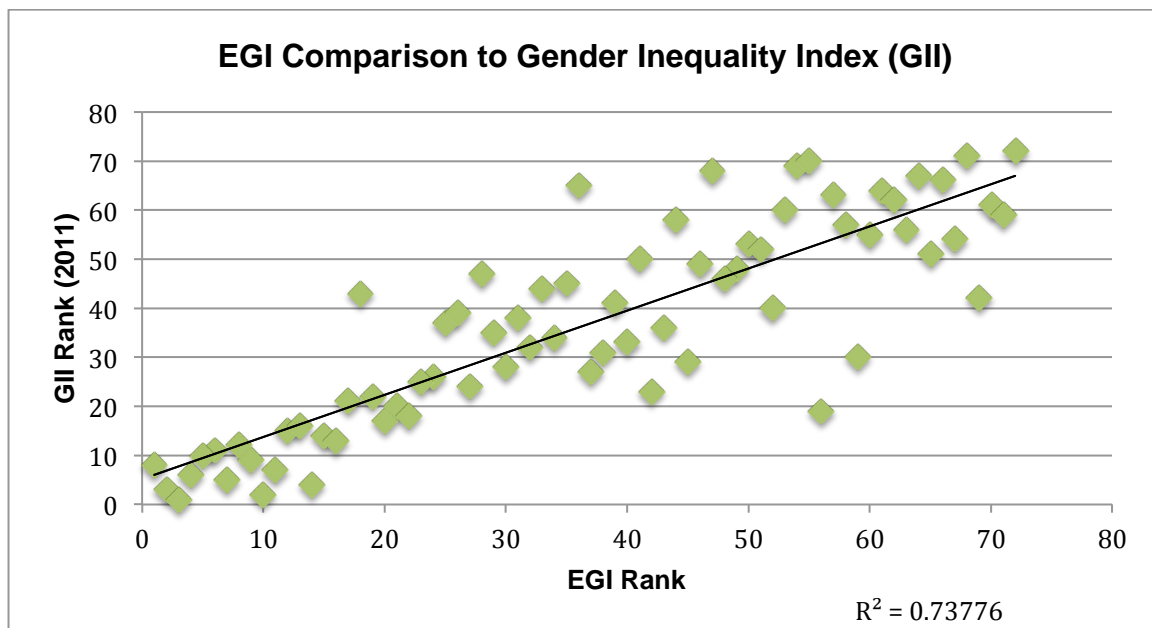
Figure 4: EGI Comparison to Global Gender Gap Index

EGI Comparison to Global Gender Gap Index (GGGI)

$R^2 = 0.5483$
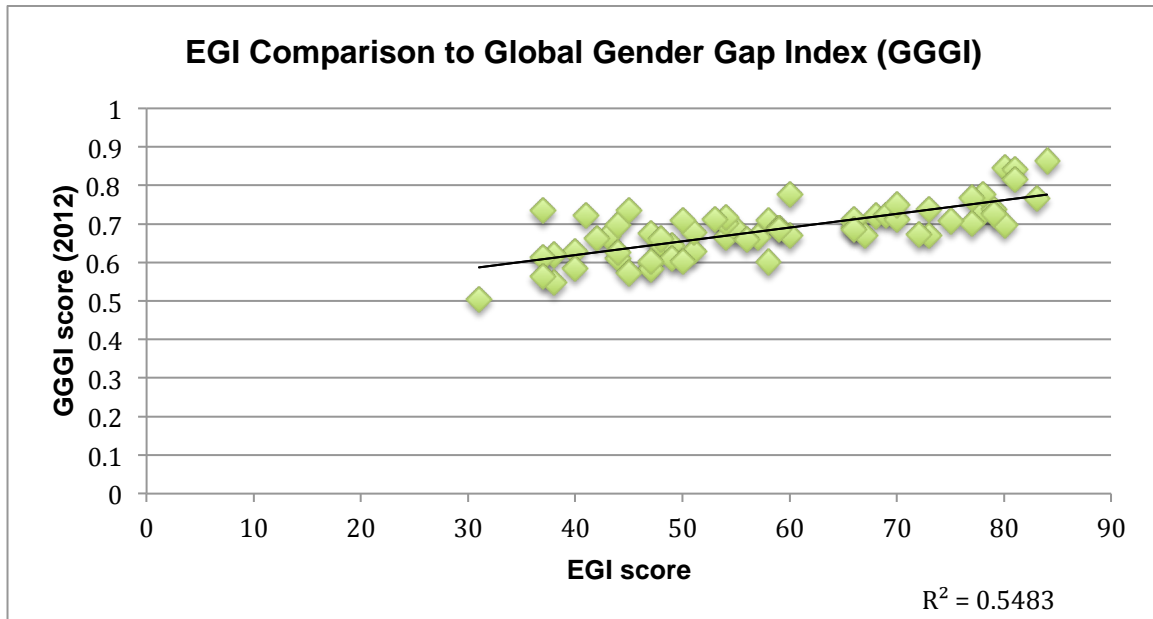
Figure 5: EGI Comparison to Gross Domestic Product Per Capita

EGI Comparison to GDP Per Capita

$R^2 = 0.54307$
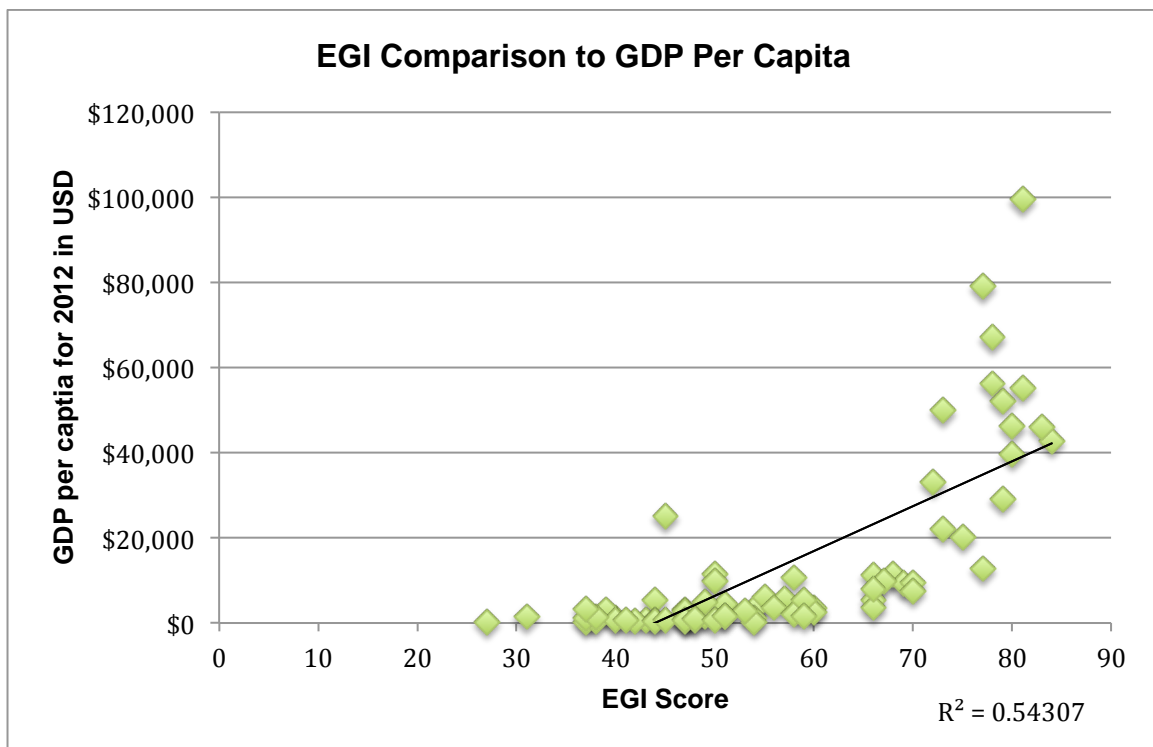
Figure 6: EGI Comparison to Environmental Performance Index (EPI)

EGI Comparison to Environmental Performance Index (EPI)

$R^2 = 0.49646$
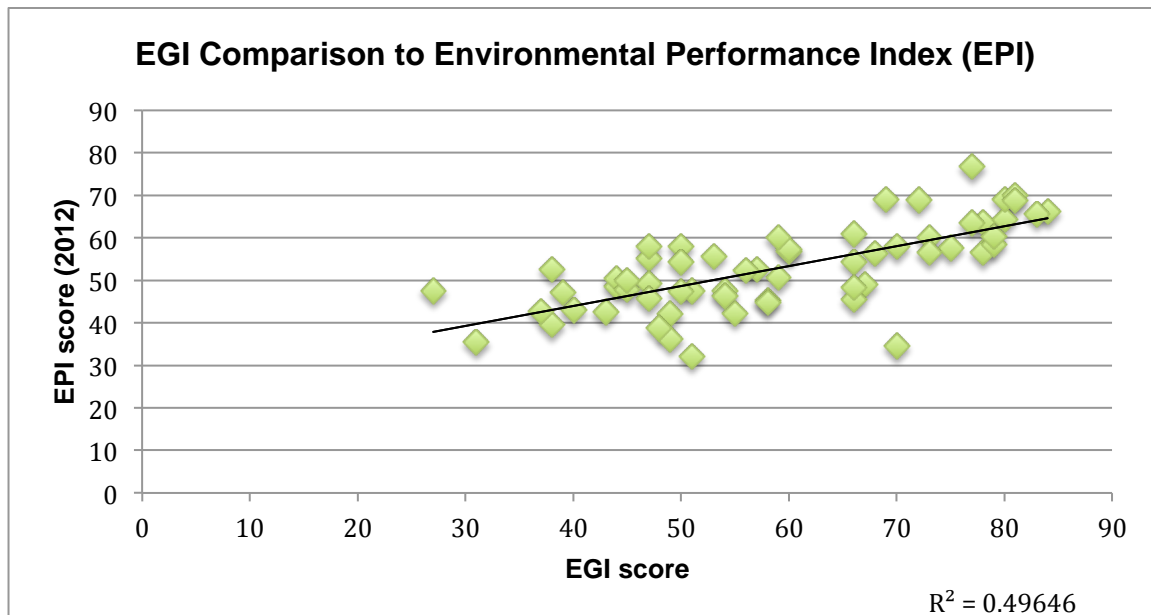
As the charts above show, the EGI has the strongest relationship with the GII Index. The explanatory power, based on the R^2 value of 0.74 shows a significant, strong correlation between the two. This means that country rankings for the EGI and GII follow a similar trend. This result is not surprising given that both indices emphasize women's empowerment in their framework models. The EGI's relationship to the GGGI index is less strong with an R^2 value of 0.55. A comparison of EGI scores and a country's per capita GDP shows a slightly weaker relationship with an R^2 value of 0.54. The explanatory power is lower, indicating a moderate relationship between increasing per capita GDP and a country's EGI score.

Notable outliers (i.e. countries that are not located on the trend line) include countries with relatively high EGI scores and moderate incomes, such as Spain whose EGI score is 79 (rank 8) and per capita GDP is USD $29,195, and Mongolia whose EGI score is 66 (rank 25) but per capita GDP is only USD $3,672. Whereas countries such as Saudi Arabia received a relatively low EGI score of 45 (rank 56) compared to its per capita GDP of USD $25,136. These results imply that increasing EGI scores are necessarily related to a country's level of economic development (as measured by per capita GDP).

Chart 4 shows a comparison of the EGI scores with EPI scores. The R^2 value of 0.50 indicates a moderate relationship between the two indices, implying a weaker relationship between individual country scores. A number of outliers exist. Countries that score markedly better on the EGI than the EPI include South Africa with an EGI score of 70 (rank 18) compared to an EPI score of 35. Or in other cases, countries score higher on the EPI, such as Nepal with an EGI score of 47 (rank 53) compared to an EPI score of 58, or the Democratic Republic of Congo with an EGI score of 27 (rank 72) compared to an EPI score of 47. These differences indicate that increasing environmental performance as measured by the EPI does not necessarily correspond to increasing levels of gender equality and women's empowerment in the environmental arena as measured by the EPI.

In sum, when comparing the EGI scores and ranks to some of the major indices measuring gender (GII and GGGI) and the environment (EPI) as well as to per capita GDP, the strongest and most significant relationship is found to exist between the EGI and the GII, meaning that countries tend to score in a similar way on both indices. The EGI displays a weaker relationship to the GGGI, EPI and per capita GDP, implying that there are more countries that exhibit variations above or below the trend line.

4.2 Policy Implications

There are some clear policy implications of the results of the pilot EGI. In addition to the country findings above, some general themes are noted below.

Gender data in the environmental sector
Information about women's role and access in environment-related sectors is not comprehensively collected and reported. Sex-disaggregated data with broad country coverage in sectors such as forestry, agriculture, water, energy, marine, disasters, infrastructure, etc. does not exist. International institutions and governments can make progress by counting both women and men in their data collection.

Accountability between international agreements and national action
Implementation of global international agreements on gender and environment is lacking in most countries. If country reports to the Rio Conventions and CEDAW are any indication of the extent of gender mainstreaming in the environmental sector, governments need to take steps to increase investment in this area, and Convention Secretariats would need to provide more guidance and incentives. Often the challenges governments face include political will, technical capacity on gender and environment, and dedicated financial and human resources.

Gender parity in environmental decision making
The global average for women's participation in inter-governmental negotiations on climate change, biodiversity, and desertification has peaked at 36 percent. Generally, women have less access to environmental decision making than men at all levels, and this is especially true in higher management positions. Gender balance in the environmental realm is so far out of reach.

Gender policies seem to be working
The EGI's analysis of country reports to the UNCCD and country projects funded by the Global Environment Facility indicate that country activities are responding to these institutions' gender policies. The same finding has emerged in IUCN's development of climate change and gender action plans in collaboration with national

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ministries. This policy implication requires further investigation, and if true would provide further validation to past and future gender mainstreaming efforts.

The information collected in this first round of the EGI serves as a baseline for deeper analysis globally and in specific countries. With the current data and methodological experience in hand, the expectation going forward is to learn why countries performed

the way they did and share that for global learning, make corrections to the results based on findings in countries, uncover newly available data and information, and create new data sets for use by governments and institutions alike.

Other elements of data limitations

No performance measurement system can fully capture the complexities of reality. Indicators are only one tool, and should be accompanied by ground proofing through surveys and field research. Based on the experiences of previous indexes and reports, the EGI team is cognizant of other data limitations:

Periodicity of country reporting
In the context of the EGI analysis on country reports, it is clear that governments and conventions have different requirements, practices, and schedules for reporting. Periodicity of reporting is not uniform, and each country may prioritize specific themes because they have a success or a heightened problem in a specific year.

More qualitative targets
While topics like air and water quality can turn to scientific opinion and quantitative data regarding desirable target levels of pollution, the human element of gender mainstreaming means that more targets are qualitative in nature. Measurement is possible, but can be more challenging.

External factors
Conflict-ridden countries, or countries that have experienced severe financial and economic constraints, political changes or major disasters, may have difficulty in presenting their reports and/or presenting correct and updated data.

Budget allocation
Information on whether a government made a commitment to gender equality or women's empowerment, and how much money was assigned to those policies and programs, may be difficult to collect, but remains important. This level of detail may feature in a future phase of the EGI.

5. Filling in the Data Gaps

Given the tremendous gaps in data that the EGI Team uncovered—particularly the lack of sex-disaggregated data in environmental sectors across enough countries—this section presents additional research to bridge the data gaps. The section beings with the EGI Team's analysis of country reports to the Rio Conventions and CEDAW as well as the Team's analysis of country projects funded by the Global Environment Facility (GEF). Key areas of relevance to the EGI are also discussed in depth, including environmental finance, biodiversity and natural resources, land tenure, agriculture, women's participation and representation, and climate change, disasters, and energy.

5.1 Country Report Analysis

As one indicator of a country's performance, IUCN conducted research and created new data sets on the integration of a gender-sensitive approach in country reports to the three Rio Conventions—United Nations Framework Convention on Climate Change (UNFCCC), United Nations Convention for Biological Diversity (CBD), and United Nations Convention to Combat Desertification (UNCCD)—as well as the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW). Country reports to the Rio Conventions were analyzed for keywords that addressed gender and the extent of gender mainstreaming in reported activities, programs, or projects. Country reports to CEDAW were analyzed for keywords on a variety of sustainable development terms that were selected from the original Convention text and a sample of country reports. In total, over 300 country reports were analyzed over the course of 6 months during 2013 in English, French, Spanish, Arabic, Russian, and Portuguese. The results serve as an important baseline for comparing progress in the future and for monitoring trends across countries and regions over time.

Findings

Among the 72 EGI countries, the top three performers in country-reporting to the Rio Conventions and CEDAW on gender, environment, and sustainable development are listed in the table below. Overall, India, Kenya, and Ghana had the highest performance across all four Conventions. And at the lower end of the scores, Georgia, Uzbekistan, and Italy do not address gender in any of their latest three Rio Convention reports.

Table 6: Top Three Performers on Country-reported Activities

	Overall	UNFCCC	UNCCD	CBD	CEDAW
1	India	India	India	Tanzania	Morocco
2	Kenya	Ghana	South Africa	Mexico	Yemen
3	Ghana	Malawi	Kenya	Kenya	Ghana

Performance for the 72 countries for each of the Rio Conventions and CEDAW, as well as a comparison of UNCCC and CEDAW, is presented below in chart form. Please see the Appendix of this report for the detailed scores on each country.

Figure 7: Inclusion of Gender in UNFCCC Reports

Inclusion of gender in UNFCCC reports
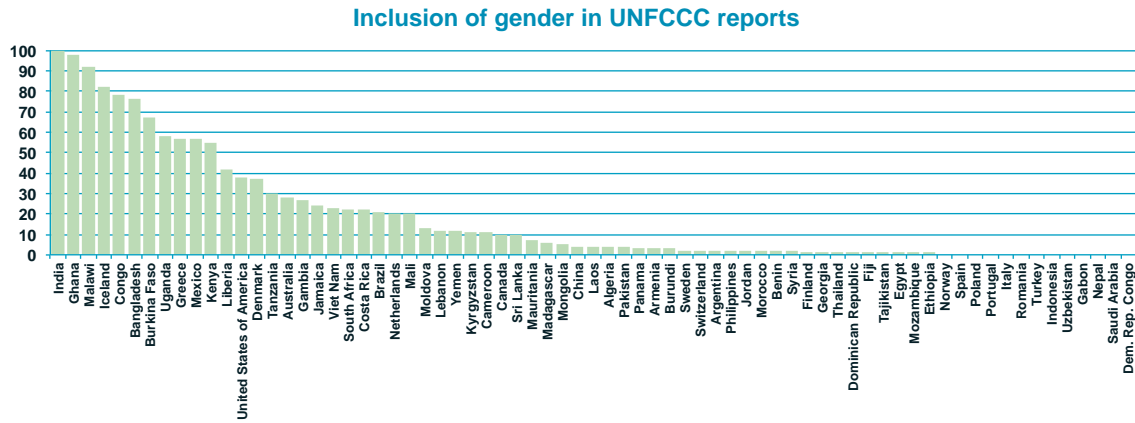
Figure 8: Inclusion of Gender in UNCCD Reports

Inclusion of gender in UNCCD reports
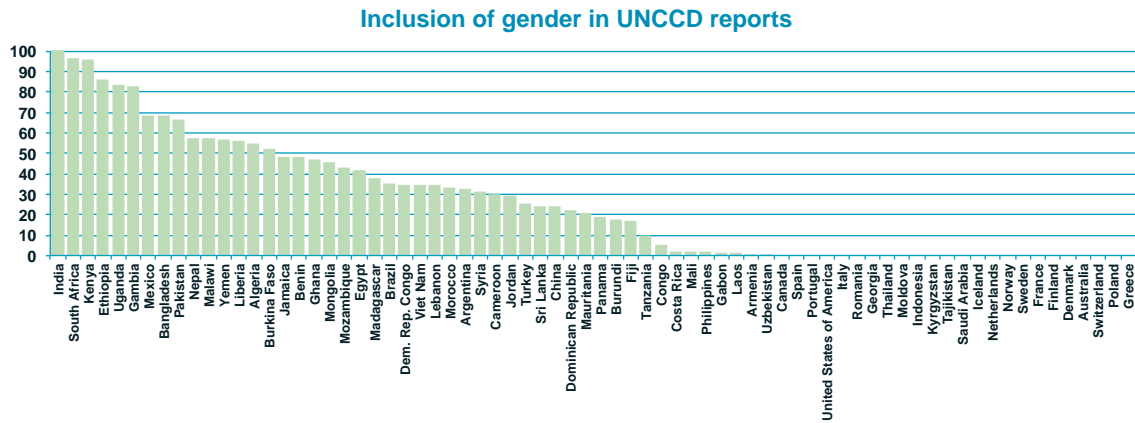
Figure 9: Inclusion of Gender in CBD Reports

Inclusion of gender in CBD reports
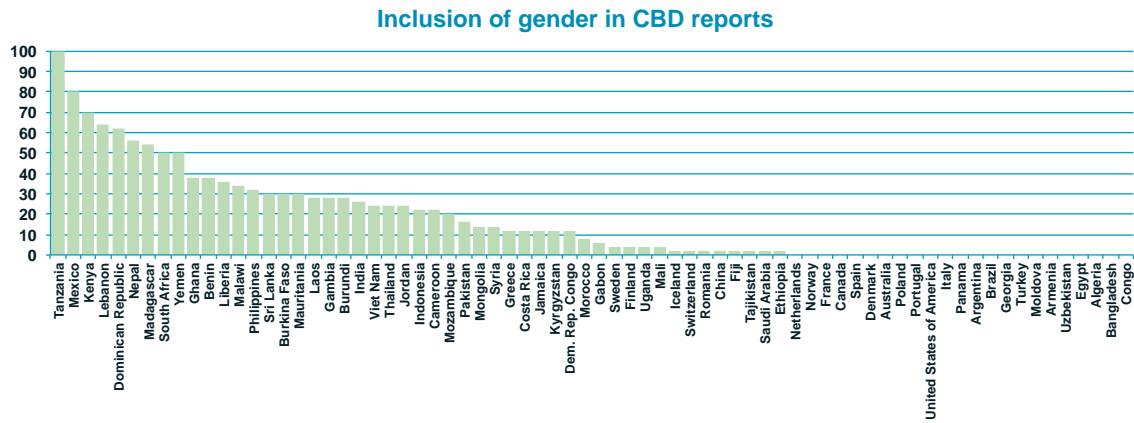
Figure 10: Inclusion of Sustainable Development Topics in CEDAW Reports

Inclusion of sustainable development topics in CEDAW reports
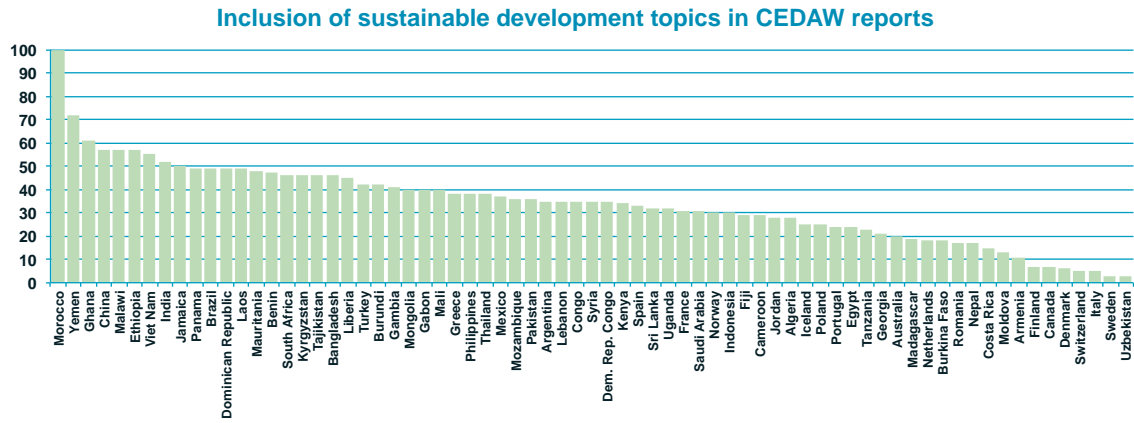
Figure 11: Comparison of Country-reporting to UNFCCC and CEDAW

Comparison of country-reporting to UNFCCC and CEDAW
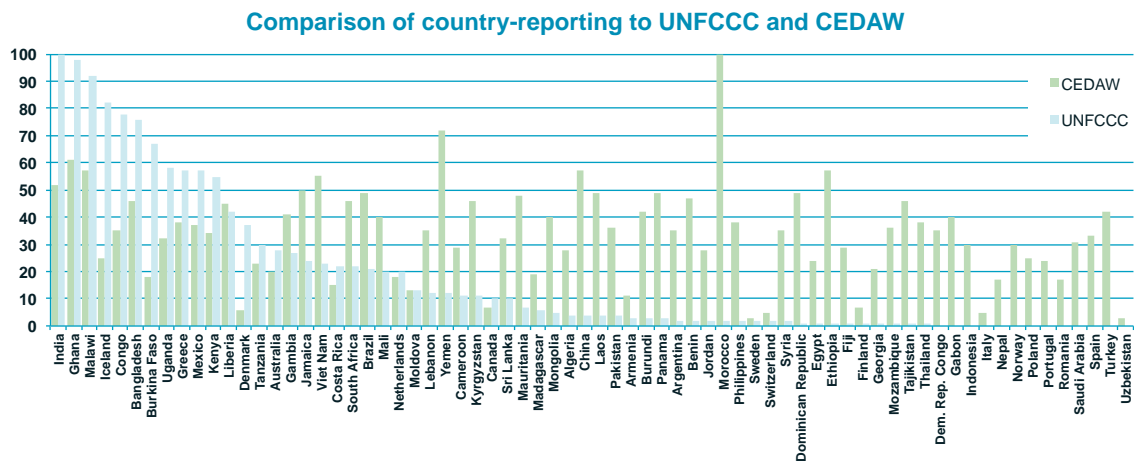
The findings of our analysis of country reporting include the following:

Countries that fall into the highest income category (OECD countries) often perform comparatively low on reporting on gender, environment, and sustainable development to the Rio Conventions and CEDAW.

In many cases, countries are performing well on the index but not on country reporting, and vice versa. Some potential reasons for this among the highest income countries may or may not be: 1) Perception that gender equality has already been achieved throughout all spheres in the country, including the environmental sector; 2) Limited awareness of the linkages between gender and non-traditional gender issues such as climate change or desertification, 3) Lack of political will, institutional mechanisms, or governance structure to address gender inequalities, 4) Lack of guidance by Convention Secretariats translating international agreements on gender, environment, and sustainable development into country reporting requirements, or lack of active gender mainstreaming or environmental mainstreaming approach at Convention Secretariats.

Some of the lower income countries are excelling at reporting on gender, environment, and sustainable development to the Rio Conventions and CEDAW.

Pakistan lists "Gender-balanced decision making and effective participation through the recognition of the economic value of women's work" as one of the 6 primary elements under the purpose of its UNCCD National Action Programme. Bangladesh includes "gender-differentiated impacts" as a core element of its schematic on climate change impacts in its UNFCCC National Adaptation Programme of Action. In its report to the CBD, India describes efforts to involve women in technology-based livelihood opportunities to reduce dependency on bio resources. And in its adaptation plan, Malawi reports on several interventions to remedy women's vulnerability to climate change, including access to microfinance, access to water and energy sources, and rural electrification.

Countries performed higher overall on reporting to CEDAW than reporting to the Rio Convention.

Some potential reasons for this include: 1) The methodology used for country report analysis may or may not be as uniform as needed to compare the CEDAW and Rio Conventions, which will be addressed in the second round of the EGI; 2) CEDAW is a gender-related Convention that included sustainable development topics in its original text, which may signify an entry point of greater international political will than the environmental conventions serving as that entry point; 3) CEDAW established an international agreement that addressed women and sustainable development long before the establishment of the Rio Conventions; 4) Developing countries have a greater awareness of the linkages between gender and sustainable development, and a lesser awareness of the linkages between gender and climate change, biodiversity, or desertification; 5) Only in the past decade have women's organizations and gender experts been attending the negotiations of the Rio Conventions en masse.

Several countries in the Middle East and North Africa (MENA) region have scored the highest globally on country reporting to CEDAW.

Morocco and Yemen are the top performers on country reporting to CEDAW. This performance in the CEDAW context is surprising given these countries' low ranks in other indexes such as World Economic Forum's Global Gender Gap Report and UNDP's Gender Inequality Index. Some potential reasons include: 1) These countries are making genuine progress in their attention to gender equality in the sustainable development context; 2) Sectors that fall under the environmental and sustainable development arena, and that are distinct from the traditional 'women's rights' areas of health and education, are good entry points for these countries to make progress on gender equality; 3) These countries are placing higher emphasis on 'rural women,' which is the essence of the original CEDAW text's approach on sustainable development. The latter reason seems to be a strong contender for Yemen, for example. Yemen's CEDAW report indicates that 87 percent of women's labor force in the country goes to agriculture and thus the government set up a General Department for Developing Rural Women, which has led to many projects and women's participation.

Countries perform higher on reporting on gender to the UNCCD than to the other Rio Conventions.

One reason for stronger country reporting on gender to the UNCCD than to other Rio Conventions could be due to the fact that language on gender and women's empowerment was included in the text of the Convention itself, while these themes were not included in the CBD and UNFCCC until later. After the creation of the UNCCD, the political decision to mainstream gender was accompanied by clear guidance, technical support and training. Also, the UNCCD Secretariat has always maintained a gender officer on staff.[9] Both the UNCCD and CBD have adopted institutional gender strategies, and more recently the CBD developed Technical Series No 49, outlining guidelines for mainstreaming gender into national biodiversity strategies.[10]

Country reporting methodology

This is the first time such a comprehensive gender review of government reports to the Rio Conventions and CEDAW has been conducted. Thus, there were a number of challenges inherent in the pilot methodology, some of which will be possible to improve in the next round of the EGI. These challenges include:

- Country reports do not always reflect the realities in a country or in the country's policy or programming framework. The EGI Team found instances where a country performed well on reporting to the Conventions, but in reality there was evidence that other countries are indeed taking more action. The reverse is also true—countries may not report all of their efforts, but indeed are implementing activities in line with international agreements on gender, environment, and sustainable development. The only way to improve this information is to analyze

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[9] Knabe, Friederike and Lene Poulsen (2004). Promoting Equality between Men and Women through Multilateral Environmental Agreements: How the UN Convention to Combat Desertification Promoted the Role of Women in Decision Making. San Jose, Costa Rica: IUCN.
[10] Sasvari, A., Aguilar, L., Khan, M., Schmitt, F. (2010). Guidelines for Mainstreaming Gender into National Biodiversity Strategies and Action Plans (CBD Technical Series No. 49). Gland, Switzerland: IUCN.

policy and programming country-by-country and consult with key stakeholders in each country, which the EGI will undertake in the next round.

- The report analysis provides the most recent snapshot of what countries are reporting. Some countries may have already achieved more, or cut gender funding, after the report was filed. Other countries may have already achieved a strong performance at the intersection of gender and environment and thus do not find it relevant to report on this topic at all.

- The EGI Team found it important to analyze all countries across the same criteria. However, each country approaches their reporting to Conventions in a slightly distinct format and sometimes using unique terminology. Thus, the research team was directed to capture the overall "essence" of the report's focus on gender and environment, widening or narrowing the criteria for gender mainstreaming in government activities as necessary, and often giving the government the benefit of the doubt. When it was discovered that most (but not all) OECD countries did not incorporate gender in reports to the UNFCCC, it was still decided to maintain the universal criteria for analysis. Though primarily focused on emissions reductions at a time when the international community had not yet connected gender to climate change mitigation, the analysis of these reports will serve as an important baseline for potential future inclusion of a gender approach in climate change mitigation reporting. And, the few countries that already included gender in their UNFCCC reporting on mitigation earned a higher score on the EGI.

- In some cases, countries were not included in the analysis because they are not required by a Convention to report, for example in the case of OECD countries that do not focus their UNCCD reporting on domestic activities. Another example of a country not being measured is the United States of America, which is not a party to CEDAW.

- Country reporting likely correlates to some extent with the direction provided by the Convention Secretariats. The nature of that guidance, and particularly which tools and guidelines include or do not include a gender approach, will be reviewed in the next round of the EGI. The extent of a Convention's attention to gender may also correlate to the existence of a dedicated gender officer.

- Generally, the latest reports were used, but not all of the country reports were posted in the appropriate location on the websites of the Convention Secretariats, which required identifying where the scattered reports were located, and some reports were not available online. It was often difficult to determine a country's most recent report (and thus activities). Thus there are a small number of cases where an earlier report, or no report, was analyzed. This situation of report accessibility and organization could easily be improved by the Secretariats.

- Another challenge was the lack of uniformity of length among country reports - one country may prepare a report of over 150 pages while another country submitted a report or summary of less than 10 pages. This challenge was managed by controlling for the number of pages.

Search terms were developed based on a sample group of country reports to these conventions. Some words that we did not include for the CEDAW analysis - including forest* and biodiversity - will be included in the EGI's 2nd phase. The keyword search required careful analysis of the terms included in the report - as one example, many mentions of "female" referred to livestock and not women.

The second part of the report analysis was a gender analysis of actions and projects included in the report. The following elements were scored:

a) Inclusion of a gender-related action/project in the report,
b) Gender/women included in project title,
c) Gender/women as one of the objectives,
d) Explanation of the project's contribution to gender equality or women's empowerment,
e) Specific activities on gender/women described,
f) M&E of gender-related actions mentioned,
g) Implementing institution mentioned,
h) Implementing institution has gender expertise,
i) Timeframe devoted to gender-related activities listed,
j) Resources allocated to gender-related activities.

This analysis was more qualitative than the keyword search and involved careful analysis of projects throughout the report.

This is the first effort of its kind to analyze gender-environment in a large group of country reports to the Rio Conventions and CEDAW. It is an important contribution to the EGI because it is the only variable that provides a window into countries' actual policies and programming on gender and environment. The hope is that monitoring specifically for gender will contribute to accountability to global agreements and create momentum for future actions on gender-environment.

> **Keywords for Rio Conventions**
> Gender
> Sex
> Female
> Women
> Woman
> Gender equity
> Gender equality
>
> **Keywords for CEDAW**
> Agrarian
> Agricul*
> Credit
> Energ*
> Environment
> Farm*
> Fish*
> Food
> Food security
> Land
> Loan
> Natural resources
> Rural women
> Water
>
> (terms with * searched for all variations of that word, for example farm, farms, farmers, etc.)

5.2 Environmental Finance

Projects funded by the Global Environment Facility

The extent to which projects financed by the Global Environment Facility (GEF) address gender equality and women's empowerment is an important indicator of a country's investment in the environmental arena. The GEF is the financial mechanism for implementation of the Rio conventions on biodiversity, climate change, and desertification. The GEF unites 183 countries with the Convention Secretariats, in partnership with international institutions, nongovernmental agencies, indigenous and

local communities, the private sector, and civil society through one or more of the ten designated GEF agencies[11].

The GEF itself has found that when projects fail to address gender differences within the environmental context, they risk wasting development resources on projects and creating negative effects on welfare, equity, equality, and sustainability. Project results are superior when gender considerations are taken into account during all processes of planning, design, and implementation. To increase efficiency of GEF projects in achieving their desired goals, projects should account for gender differentiated perspectives and priorities that men and women exhibit regarding control over, and access to, environmental quality, natural resources, and energy[12].

The important linkage between gender issues and the environment are incorporated into the three Rio Conventions. However, the GEF implementing agencies have their own gender policies and strategies, which should apply to GEF-funded projects. Despite UN and international agreements on gender equality inciting revisions and strengthened approaches by the GEF agencies, many of these gender strategies generally remain weak.

In 2009, the GEF produced Mainstreaming Gender at the GEF, with an analysis of gender incorporation into GEF projects across key sectors during 2003-2006. The analysis assessed 172 projects and found that 45 percent included some gender related keywords, and approximately 40 percent of the 172 projects reviewed included at least some kind of gender mainstreaming action within a project according to certain criteria and actions. The six criteria used in the GEF analysis to determine if gender mainstreaming was included are:

- *Criteria 1:* Gender analysis during project preparation and/or implementation
- *Criteria 2:* Consultation of women's groups as stakeholders and beneficiaries in project development or implementation
- *Criteria 3:* Inclusion of gender as part of the project objective statement
- *Criteria 4:* Project activities, outcomes, and/or components that specifically target women, and in some cases men
- *Criteria 5:* Inclusion of gender-sensitive monitoring and evaluation processes (i.e. sex-disaggregated performance indicators and/or gender consideration in monitoring and evaluation exercises)
- *Criteria 6:* A budget including gender-related activities, such as allocation for a gender or social specialist position to determine gender-related activities for implementation.

The GEF's conclusion was, "While there were several GEF projects with strong gender elements, gender mainstreaming in GEF projects was generally found to be limited, compared to similar thematic analysis by other organizations." Of the 40 percent of projects found to include gender dimensions, 48 percent of those projects meet only one

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[11] The ten implementing agencies include: the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the World Bank, the UN Food and Agriculture Organization (FAO), the UN Industrial Development Organization (UNIDO), the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), and the International Fund for Agricultural Development (IFAD).
[12] Watanabe, Yoko (2013). *Mainstreaming Gender at the GEF*. Washington, DC: GEF.

of the six mainstreaming criteria; 16 percent of projects meet two criteria; 18 percent meet three criteria; and none met all six criteria (see recreation of GEF figure below).

Figure 12: Extent of Gender Mainstreaming in GEF Projects Along Six Criteria

Extent of Gender Mainstreaming in GEF Projects

- One criterion
- Two creteria
- Three criteria
- Four criteria
- Five criteria
- Six criteria
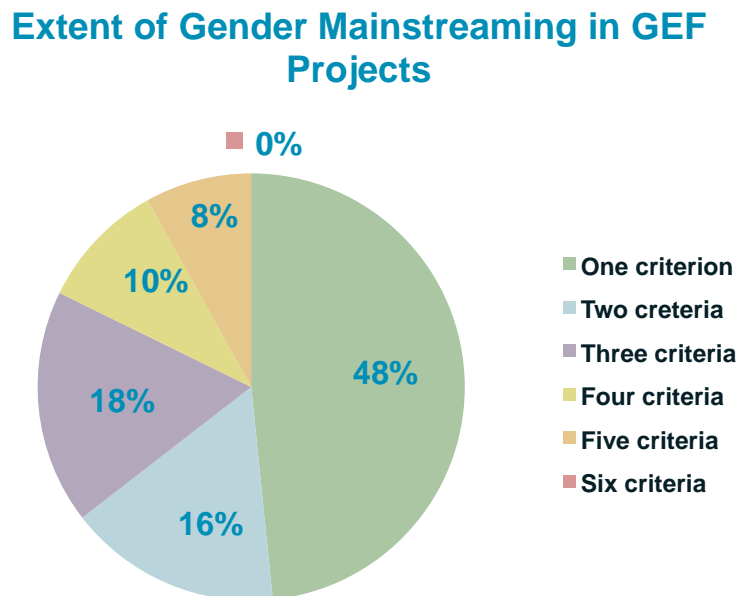
In the GEF's Small Grants Programme (SGP), there has been success in promoting gender equality and women's empowerment, due to the fact that this element is a cross-cutting requirement of the global SGP criteria and has therefore been incorporated into the project cycle. Not until 2011 though, did the GEF Secretariat develop a gender mainstreaming policy[13] for all projects.

Methodology

The analysis undertaken by the EGI Team assessed the extent to which gender was addressed by GEF projects in 54 of the developing countries included in the EGI. GEF projects approved between January 2006 and September 2013 were evaluated on the basis of gender mainstreaming at all stages—project preparation, planning, and implementation. The completed documents[14] submitted during the approval process were screened for gender considerations by using seven keywords, similar to those used by the GEF in its own gender analysis: gender, women, men, female, male, boy, girl, and sex. The analysis identified projects that were found to contain these keywords and to incorporate gender throughout the project, either as part of a social assessment or analysis. Projects that may have included some of the keywords but did not necessarily promote gender analysis or assessment, and those that did not include any of the keywords, were decidedly not taking gender into consideration. Analysis also

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[13] The Council approved this policy in the context of its review of Council Document GEF/C.40/10/Rev.1, GEF Policies on Environmental and Social Safeguards and Gender Mainstreaming. The GEF Secretariat formatted the policy in line with its Policy Document Format and has clarified parts of the Policy to reflect Council deliberations, reduce duplication, and make it consistent with paragraphs 23 30 of Council Document GEF/C.40/10/Rev.1. This policy entered into effect when adopted by the GEF Council on May 26, 2011. As decided by the GEF Council, this policy will be reviewed in 2015.
[14] These documents include the Project Identification Form (PIF), Project Preparation Grant (PPG), Executive Summary, and final project documents for GEF CEO endorsement.

focused on the extent to which projects were gender-responsive before and after 2011, when the gender policy mandate was incorporated at the GEF.

Table 7: Percentage of Gender-responsive GEF Projects by Country

Lao	83%	Burkina Faso	50%	Dominican Republic	40%
Mozambique	75%	Ethiopia	50%	Gambia	40%
Moldova	75%	Fiji	50%	Georgia	40%
Malawi	67%	Jamaica	50%	Turkey	40%
Mongolia	67%	Mali	50%	China	39%
Pakistan	64%	Nepal	50%	Benin	38%
Lebanon	63%	Tajikistan	50%	Brazil	36%
India	62%	Tanzania	50%	Gabon	33%
Kenya	62%	Costa Rica	45%	Liberia	33%
Algeria	60%	Egypt	44%	Uganda	33%
Cameroon	60%	Ghana	42%	Argentina	29%
Mauritania	60%	Indonesia	42%	DRC	25%
Kyrgyzstan	58%	Jordan	42%	Panama	25%
Madagascar	57%	Morocco	42%	Thailand	21%
Uzbekistan	57%	Philippines	42%	Sri Lanka	13%
Yemen	57%	Armenia	40%	Romania	0%
South Africa	54%	Burundi	40%	Syria	0%
Viet Nam	53%	Congo	40%		
Bangladesh	50%				

Figure 13: Percent of Gender-Responsive GEF Projects by Country

Percent of Gender-Responsive GEF Projects by Country
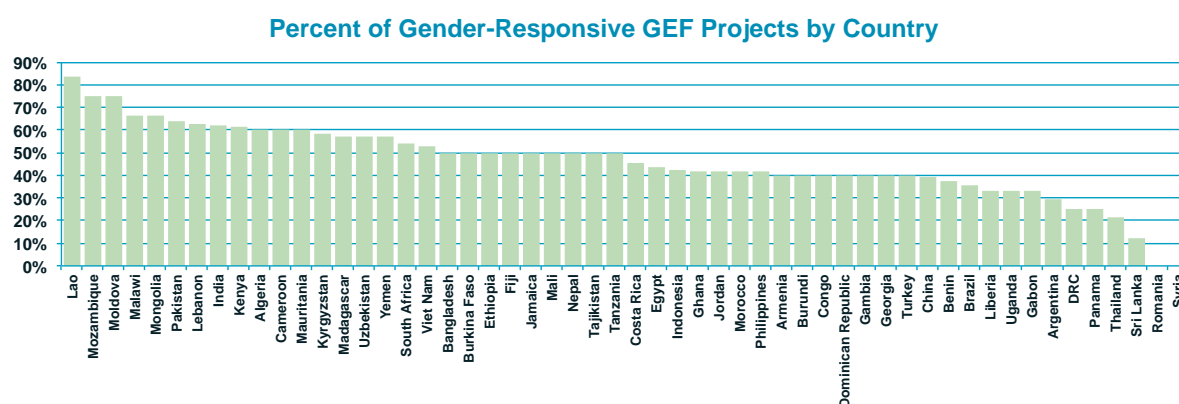
Findings of GEF Analysis

The implementation of a gender mainstreaming policy at the GEF in 2011 can be seen in the results of this analysis to have contributed significantly to increasing gender-responsiveness throughout the stages of project development for many of the countries. After the establishment of the gender mandate, 29 of the 54 countries incorporated

gender in their projects in a substantive manner in all of their projects, and another 18 countries improved on the number of gender-responsive projects. This suggests that the policy had a significant impact on gender mainstreaming in projects; however, additional research would be needed to confirm this finding. Regionally, Latin America saw the largest increase (75 percent) of gender-responsive projects before and after the gender mandate, and the Middle East and North Africa region ended up with the highest percentage of gender-responsive projects (96 percent).

Table 8: Percentage of Gender-responsive GEF Projects by Region

Region	Percent before 2011	Percent after 2011	Percent increase
Africa	35%	83%	48%
Asia	25%	73%	48%
Eurasia	35%	89%	54%
Latin America and Caribbean	16%	91%	75%
Middle East and North Africa	39%	96%	57%

Figure 14: Gender-Responsive Projects Before and After GEF Gender Policy

Gender-Responsive Projects Before and After GEF Gender Policy
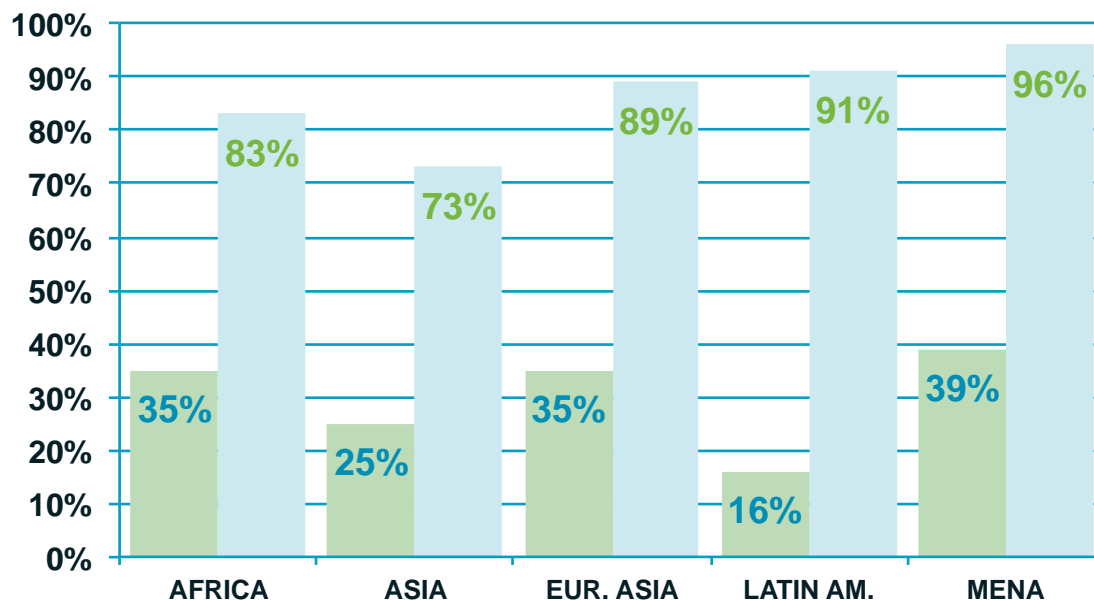
The EGI Team attempted to analyze the amount of funding that is specifically dedicated to gender equality and women's empowerment in GEF projects; however, this proved difficult without additional data made available by the GEF. A comparison of gender-responsive projects with those that are not gender-responsive does indicate that GEF project grants with larger sums of money attached are more likely to include gender considerations.

Table 9: Positive Examples of Gender-responsive GEF Projects

Democratic Republic of Congo

Approved	March 2013
Area	Climate Change
Project	Building the resilience and ability to adapt of women and children to changing climate in Democratic Republic of Congo
Description	This GEF project in the Democratic Republic of Congo was approved in March 2013 and was directed at women and children, and integrated gender throughout the program framework. The project has a particular focus on female-headed households and the contributions of women in agricultural development to promote resilience for climate change impacts. Not only does the project focus on general social dimensions, but it also evaluates gender-specific aspects with the goal of enabling marginalized groups to gain access to information, services, and resources. The project dedicates 40% of project investments to women, with women also being the main beneficiaries according to the logical framework indicators.

India

Approved	June 2012
Area	Climate Change
Project	Sustainable Livelihoods and Adaptation to Climate Change (SLACC)
Description	This GEF project in India pays special attention to the social aspects, including gender dimensions, of climate change resilience. Interventions to promote women's empowerment and certain adaptation activities respond to the gender-differentiated impacts of climate change. This project recommends entry points for gender-responsive activities and evaluates gender impacts and vulnerabilities.

Kyrgyzstan

Approved	August 2006
Area	Land Degradation
Project	Southern Agriculture Area Development Project, as part of Phase 1 CACILM Framework (Central Asian Countries Initiative for Land Management Partnership)
Description	This GEF project in Kyrgyzstan is one of the earlier projects among those analyzed and incorporated a gender approach before the GEF gender mandate was established. The Public Participation Plan of this project includes a gender action plan that identifies women as important participants in farming activities. The project engaged gender specialists and incorporated gender-responsive indicators and sex-disaggregated data into monitoring and evaluation efforts.

The first two case studies above are projects in the focal area of climate change adaptation, which is often regarded as a more accessible entry point for addressing women's empowerment and gender equality. In future analysis of GEF projects, the EGI Team intends to monitor the extent of gender mainstreaming in projects that address

climate change mitigation and other GEF focal areas, and also employ specialized gender indicators developed for the GEF context.

Potential Role of the Green Climate Fund in Country Performance

The Green Climate Fund (GCF) of the UNFCCC is poised to become an important financial mechanism for monitoring gender mainstreaming in climate change mitigation and adaptation. In 2011, government Parties to the UNFCCC made history by establishing the GCF with a 'gender-sensitive approach.' Parties also agreed to gender balance among the fund's Board and Secretariat staff, to operationalize modalities that address gender issues, and to incorporate the participation of women as stakeholders.[15]

Over the last two years, with initial contributions for start-up by Germany, the Republic of Korea and Denmark, the GCF Board (comprised of 21 men and 3 women as primary members so far) and executive staff have been established, with Ms. Héla Cheikhrouhou of Tunisia appointed the inaugural Executive Director. Now, the Board takes up the important task of moving forward with operationalization – and that includes considering how to implement its guiding decisions on gender equality.

The extent to which the GCF pursues gender mainstreaming will invariably have an effect on whether countries and projects also address the gender-differentiated aspects of climate change. Gender advocates have recommended the establishment of a gender decision to complement other recent UNFCCC agreements on gender [16] and development of a roadmap for gender mainstreaming within the GCF architecture. In order to integrate a comprehensive approach to gender equality in fund operations, the Board would need to build on lessons from gender mainstreaming in other contexts and treat gender as both a priority and cross-cutting issue.[17]

For the EGI's purposes of monitoring country performance on incorporating a gender approach in climate change efforts, the governance and allocation of GCF funds will be the most relevant. Key factors are the development of gender-sensitive criteria for project identification and fund allocation, applying gender-sensitive performance indicators for monitoring and evaluation, identifying gender safeguards, and inclusion of women stakeholders and gender experts in consultations and project leadership. Finally, countries would mostly likely perform better on the gender aspects of climate change if the GCF set up a specific fund for women-led or gender-inclusive projects.

Gender Review of the Climate Investment Funds

In early 2013, IUCN concluded a Gender Review [18] of the World Bank's Climate Investment Funds (CIF), at the instruction of the CIF Administrative Unit. Below is an excerpt from the review, which provides another perspective on how countries are performing on addressing gender within environmental finance.

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[15] UNFCCC Decision 3/CP.17
[16] e.g. UNFCCC Decision 23/CP.18
[17] Schalatek, L., and Burns, K. (2013). *Operationalizing a Gender-Sensitive Approach in the Green Climate Fund.* Washington, DC: Heinrich Boell North America.
[18] Gender Review of the Climate Investment Funds: https://climateinvestmentfunds.org/cif/content/cif-gender-review-report-march-2013

Analysis of the 16 national and regional Strategic Programs for Climate Resilience (SPCR) revealed that all of the countries mentioned gender in one way or the other; however, the approach to gender equality varied considerably. About 56 percent referred to women only as a vulnerable or marginalized group alongside the sick, children and elders, and about 44 percent recognized women as relevant stakeholder and agents of change. Among all of the CIF initiatives, the Pilot Programs for Climate Resilience (PPCR) stand out because they have been improving over time.

Similarly, the approach to gender equality in the Forest Investment Program (FIP) varies widely. About half of the Investment Plans reported on the engagement of women and women's organizations in the development of the plans, and 75 percent of these Plans did not involve the national women's mechanisms, such as the women's ministry.

Among the Scaling Up Renewable Energy Program (SREP) initiatives, all of the countries mention gender, in most cases referring to women as beneficiaries or a vulnerable group. Most of the countries do not reference the national policy framework on gender, and none of them earmark specific resources for promoting gender equality and women's empowerment.

In the Clean Technology Fund (CTF), 25 percent of countries address gender, but no women or women's organizations were engaged as stakeholders, and most of the countries did not gender indicators. Comprising almost 70 percent of CIF investments, the CTF is unique in that it also incorporates the least consideration to gender. This may be due to the fact that it was the first CIF program to be operationalized, before gender issues were brought up in Trust Fund committee meetings, and that there is no mention of gender in the CTF guidelines.

The table below outlines the performance of country projects under the Climate Investment Funds, based on the seven criteria employed by IUCN for the Gender Review.

Table 10: Performance of Country Projects under Climate Investment Funds		
Gender Analysis Criteria		Percentage
1. Gender Referred to in the Text		70.73%
2. How Women are Characterized	Vulnerable group	34.15%
	Relevant stakeholders and agents of change	26.83%
	Beneficiaries	9.76%
3. Involvement of National Women's Mechanism		26.83%
4. Report Resources Earmarked		26.83%
5. Engagement of Women/Organizations Documented and Reported		34.15%
6. Gender Indicators Reported	Included	9.76%
	Partially	36.59%
	Not included	53.66%
7. National/Regional Gender Policies Acknowledged		31.90%

Some of the obstacles that prevent effective mainstreaming of gender within the climate change debate and subsequent implementation are not confined only to the CIF, but is the result of: a need for further knowledge, particularly in the area of gender and

mitigation; limited technical capacity of gender experts at the national and international level to address gender issues beyond the traditional agenda topics; and failing to recognize gender both as a driver for transformational change and as a catalyst that increase the effectiveness and efficiency of programs.

5.3 Biodiversity and Natural Resources

In the process of exploring the existence of sex-disaggregated data on a variety of natural resource areas—from forests to agriculture to energy—it became clear that this data is often piecemeal and not collected or compiled for a broad enough set of countries. This revelation is one of the important findings of this pilot phase of the EGI, and one that is surprising to many decision makers and practitioners. This discovery on sex-disaggregated data in the environmental sector will also serve as a baseline for more in-depth research in future phases of the EGI.

In the absence of sex-disaggregated data across enough countries, the EGI is truly a data driven exercise and employs a mix of variables to achieve the best possible proxy for the gender-environment nexus. One of the primary contributions of the EGI is tackling gender and environment variables simultaneously. These variables may not tie together as well as one variable that measures the gendered nature of a particular environmental sector, but they do provide a side-by-side comparison of how each country performs on both gender equality and environment, and some of the variables are closer than others to what is intended to be measured.

> **Send feedback**
> What information or data is available on gender and biodiversity in your country? What lessons have been learned in the policy realm?
> environmentgenderindex.org/contact

The EGI's ecosystem category consists of three indicators selected from Yale University's Environmental Performance Index (EPI) at the Yale Center for Environmental Law and Policy. EPI variables are routinely used by reputable and widely cited indices such as the Global Competitive Index. The indicators selected—biodiversity preservation, critical habitat protection, and higher quality forests—were found to provide the best possible environmental measures that offer the needed data and fit into the EGI framework, but they by no means provide a complete picture of a country's environmental performance (see indicator descriptions for more detail).

The EPI indicators are also not sex-disaggregated. Similar to other environmental areas, data on gender and biodiversity is largely non-existent in most countries. There are studies on particular countries or regions showing a significant gender difference in the use of and reliance on particular natural resources, but no data set that allows for country comparison or monitoring performance against international agreements. With more comprehensive information in this area, decision makers could improve land tenure and concentrate agricultural efforts where it mattered for women; pursue protections for the traditional knowledge of women and indigenous communities; explore innovations in protecting biodiversity—for example through studying women's recipes to reveal how households use resources over generations and by season; and shift the tide toward greater women's leadership in the environmental sector from the community level to international negotiations.

Gender and biodiversity in developing countries

In developing countries, discussion of the gender aspects of biodiversity often begins with women's access to natural resources. Living far from markets and roads increases reliance on forests and other natural resources. According to a 2012 review of IUCN's Livelihoods and Landscapes strategy, the rate of forest reliance worldwide stands around 25 percent. In a comparison of IUCN's data on landscapes and regional per capita income, the value of forest income to households in some places is $100-200 dollars per year. This means that natural resources have contributed more per capita to the achievement of the Millennium Development Goals, than has local government expenditure." Even in agricultural areas, 40 percent of household income can come from non-timber forest products. [19]

The IUCN study also reveals that in most places forest reliance is more important for non-cash sources of income, which happens to be women's primary use of natural resources. Generally women rely on forests more than men, and poorer people rely more on forests than wealthier people—thus a significant proportion of those who rely on forests are poor rural women. Besides plants and non-timber forest products, rural women are highly aware of how biodiversity protection contributes to water resources and soil regeneration in fallowed farmland. Biodiversity is also a key component of improving food security, especially for women who are more vulnerable to nutritional deficits—50 percent of women and children in developing countries are anemic.

As an example, in the Democratic Republic of Congo:

"Forest conservation in the eyes of rural women is a life and death issue centering on, for example, access to, use and management of forest products, food security, revenue to ensure payment of school fees, health costs and other needs, security in entering forests and going to market, and health impacts of unclean water, malnutrition and loss of diversity"[20]

And in IUCN's work in the Amazon forest of Peru, women explain why they should be chiefly responsible for monitoring and preventing deforestation:

"For the men in our community, the trees of our forest provide mainly timber – that is the only thing they are interested in. For us, for the women, our perception is completely different. The trees are the pillars that hold up our cathedral. Inside this cathedral, we find our food, we find the resources to build our houses, we find what we need to heal the sick. We need, then, to guard the trees – as they are our whole way of living."[21]

As noted above, some research exists on gender differences in the use of biodiversity in developing countries. These studies should inform a broader effort at data collection and analysis at the nexus of gender and biodiversity:

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[19] Shepherd, Gill (August 2012). *Rethinking Forest Reliance: Findings about poverty, livelihood resilience and forests from IUCN's 'Livelihoods and Landscapes' strategy.* Gland, Switzerland: IUCN.
[20] Russell, D. (2013). *Gender Analysis for the Central African Regional Program on the Environment (CARPE) Phase III USAID-IUCN-CARPE.* Washington, DC: USAID.
[21] Personal communication with Lorena Aguilar, IUCN (2012)

- In Thailand, research on 60 home gardens revealed 230 different species, many of which had been rescued by women from neighbouring forests before being cleared.[22]

- In Mexico, women gather food from the forest and woodlands, including fungi and wild greens such as *azonche*, turnips, clover, mustard, mallow, *quelites de agua*, *papas de agua* and wild potatoes.[23] Women provide close to 80% of the total wild vegetable food collected in 135 different subsistence-based societies worldwide.[24]

- In a study in Sierra Leone, women could name 31 uses of trees on fallow land and in the forest, while men named 8 uses.[25]

- In Zimbabwe, women's groups manage forest resources and development projects through woodlot ownership and management, tree planting, and nursery development.[26]

- In the Uttarakhand region of the Himalayas, women of the Chipko Movement achieved a 60-80 percent tree survival rate that contributed to reducing landslides and provided fuel and fodder.[27]

Gender and biodiversity in developed countries

In developed countries, data on gender and biodiversity is also important. Half of the world's population already resides in cities, but data is missing in the context of biodiversity and cities. In a statement prepared for the 11th Conference of Parties to the Convention on Biodiversity in 2012, UN Secretary General Ban Ki-Moon noted, "By 2050, an estimated 6.3 billion people will inhabit the world's towns and cities—an increase of 3.5 billion from 2010. Our planet will have undergone the largest and fastest period of urban expansion in human history." Cities can contribute to reducing emissions and protect against hazards, and support agriculture.

The diversity of biological resources in cities can be surprising. Brussels contains more than half of the floral species found in Belgium, and Cape Town is host to half of South Africa's critically endangered plant species. Urban biodiversity is linked to health rates: in the United States, cities with more trees have lower rates of asthma among young children; in Kampala, Uganda, local government policies have contributed to 50 percent of households growing produce within the city's limits. There are interesting patterns in the urban landscape—including the fact that the number of plant species in urban areas often correlates with human population size, rather than the size of the city.[28] On many

[22] Aguilar, L. (2004). "Biodiversity". Switzerland: IUCN.
[23] Cabrera, I.R., Zapata Martelo, E. and Vázquez García, V. (2001). "Gender, rural households, and biodiversity in native Mexico". *Agriculture and Human Values* 18: 85–93.
[24] FAO. (1996). "Women and Plant Genetic Resources for Food and Agriculture". Retrieved February 2008, from the World Wide Web: http://www.fao.org/FOCUS/E/96/06/03-e.htm#homegarden
[25] Aguilar, L. (2004). "Biodiversity". Switzerland: IUCN.
[26] Martin, A. (2004). Forestry. Reviewed by: Silvia Lara, Mary Hill Rojas, Lorena Aguilar, and Jackie Siles (Ed.). Switzerland: IUCN.
[27] Joshi, G. (1982). "The Chipko movement and women". People's Union for Civil Liberties. Retrieved February 2008 from the World Wide Web: www.pucl.org/from-archives/Gender/chipko.htm
[28] Secretariat of the Convention on Biological Diversity (2012). Cities and Biodiversity Outlook. Montreal, Canada: CBD.

aspects of biodiversity, including in urban areas, data and information could easily be sex-disaggregated to provide a fuller picture of human interaction with natural resources.

In rural areas of developed countries, gender is an equally important factor in management of biological resources. One clear representation of this is a unique study of gender representation in Norway around the country's National Park Plan, a major effort for conservation between 1992 and 2010, resulting in 40 new and 14 extended protected areas. *Reference groups* were established as a mechanism for local participation. However, the country's gender equality policy of at least 40 percent women's participation across decision making bodies were ignored. Among 54 reference groups that included 440 locally appointed representatives, only 48 representatives were women, or less than 11 percent. About 40 percent of the groups did not have any women representatives at all, and only 2 of the groups met the quota of Norway's gender equality policy.

The researchers investigated causes, and found that at local, as well as at national levels, the gender equality obligations were actively ignored in order to carry out the processes without provoking local elites.[29] With the sex-disaggregated data provided by the researchers, the Minister of the Environment finally installed changes geared toward improving gender equality in local environmental management. The lack of gender equality in conservation has also been observed by researchers in other European countries, as well as the lack of research funding and thereby sufficient knowledge on the magnitude and implications in various countries.[30]

In developed countries, as in the rest of the world, conservation processes are often regarded as among the most important political issues in rural districts. According to the Norwegian researchers, "Local participation in Norway is presented as a way of ensuring local ownership and legitimacy for the designation of protected areas. We believe that this is impossible to achieve when half of the local people are largely left out. In another, very different mountain area of the world—the Indian Himalaya—the same conclusion has been drawn regarding the negative consequences of having little or no participation of women in community programs that have to do with protected areas".[31]

5.4 Land Tenure

Sex-disaggregated data on land tenure is extremely limited. One of the most comprehensive data sets on this topic is the Gender and Land Rights Database of UN Food and Agriculture Organization (FAO), which offers largely qualitative country reports on land tenure for 45 of the countries in the EGI. This database addresses country performance on women's legal property and inheritance rights, and institutional, financial and social support or barriers for women's land tenure. These reports have been analyzed to bridge the land tenure data gap.

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[29] Svarstad, Hanne, Silje Skuland, Ingrid Guldvik & Helene Figari. 2009. The lack of gender equality in local participation on conservation in Norway. The National Park Plan as example. NINA Report 432 (in Norwegian with English abstract).
[30] Klok, Chris and Rob van Apeldoorn eds. 2007. Gender and Biodiversity Management and Conservation in Europe. Workshop proceedings. Wageningen: Alterra.
[31] Svarstad, Hanne, Karoline Daugstad, Odd Inge Vistad, and Ingrid Guldvik. *New Protected Areas in Norway: Local Participation without Gender Equality.* Mountain Research and Development. Vol 26 No 1 Feb 2006: 48–54

In the context of increasing pressure on natural resources and land, women are affected differently than men due to traditional land tenure customs and disproportionate vulnerabilities women face as a group. Women often face discrimination in their access to, ownership of, and control of land due to varying levels of legal

protection, and also cultural acceptance of their land rights. Tenure issues carry over to women's limited role in decision making, particularly in their ability to freely and safely have input, and be heard, on issues that affect their lives, families, and communities. The discrimination that women face in productive land resources and decision making also carries over to income disparity among women working in the agricultural sector relative to men doing equal work.

In the majority of the countries analyzed, statutory laws exist for equality of property, inheritance, labor and remuneration (as well as certain programs dedicated to providing financial access to collateral and land). Despite these legal equality provisions, in many rural areas where most agricultural work takes place traditional and religious practices prevail. Factors attributing to this disconnect at the local level include: poor interpretation and enforcement of the law by authorities and judicial administrative officials; little regard for gender sensitivity and involvement of women by the decision-making bodies; and slow rates of dissemination of information regarding laws, compounded for women with lower education and literacy skills. These have all contributed to the following trends in women's land tenure across the countries studied.

Inheritance

Although statutory laws often state spouses are equally in line for inheritance of the family assets, in practice, upon dissolution of marriage women are in a weak position compared to men due to gender inequalities that prevail in many spheres. In the case of some of the Muslim societies studied, wives do not inherit land. Widows are remarried to a brother of the deceased, which transfers the land to the new husband or allows it to be reclaimed by the community. In practice, Muslim culture dictates that daughters receive half of what their brothers inherit, if they receive anything at all, and only for their dowry. Customarily women often lack the ability to sell their land.

Property

While civil codes and laws declare husband and wife to be equal proprietors of land in rural areas, this is not demonstrated in practice. A persistent stereotype exists that women cannot manage agricultural operations, despite their extensive contributions to the sector, and are placed as workers only.

Income

In rural areas, agricultural roles are considered part of women's household duties and thus do not need to be compensated. Also, women don't always have control over the distribution and use of land, or the distribution of profits from the sale of products, which affects their income and poverty levels.

Finances

Financial independence is difficult to obtain for women in many countries. Though they may have the right in many countries to hold title deeds, gender stereotypes limit their access to collateral to obtain credit or a mortgage.

Other issues

Increasing urbanization and internal migration of men toward greater market opportunities hinders women's ability to access land and play an effective role in agricultural activities. Women tend to have access to land of poorer quality, which makes them seem 'less productive' when in reality it is due to less fertile land. Another challenge that has emerged, though little researched to date, is the inequity women face in land-grabbing purchases.

Case studies

In *Cameroon*, new laws in rural areas are not promoted and with wide ethnic variety there are a significant number of land disputes between cultures. Despite national laws promoting access to land without distinction of race, religion or sex, there is also a law calling for compliance with tribal laws, and articles that prevent women's full access to land and credit. In general, land is community property allocated by village leaders/tribal chiefs and entrusted to males, excluding women from land ownership and any input in selling, alienating, or mortgaging land.

As a socialist country, in *China* there is "public" ownership of all land and production of goods from land, but there is collective ownership by working people granted in 30-year leases. In rural areas 82.1% of women are engaged in agricultural work—a higher percentage than rural men in agriculture—but are given lower income and usually have more responsibility in the household as well. A woman loses the right to inheritance of parents' land if she marries out of her village (which is very common), but does not necessarily receive land in her new husband's village if they have not adopted the readjustment policy from 2003. This Law on Land contract states that women in rural areas shall have the same rights as men in land contracting and management, however, the patriarchal structure of kinship continues to place women at a disadvantage. A clause in a 1998 law regarding village committees was introduced to suggest an appropriate proportion of female leaders in local agencies and for village elections; less than 30% of the village committees are women because of their responsibility to childcare and household duties. This has also set in place special courts, hotlines and complaint centers to help women in file complaints and bring lawsuits forward that infringe on women's rights and interests.

Egypt is a Muslim society and although there are no laws restricting women's rights to ownership and inheritance of land and livestock, or access to credit, women almost never own the land they work on. Only 5% of land is held by women and a significant portion of these women land-holders have a very small holding— a *feddan*, equivalent to .42 hectares. Additionally, women face challenges with land markets as only 10% of land holdings are registered. Islamic law influences women's rights in relation to marriage, divorce, inheritance and employment, which are different from the civil laws that are mostly derived from the French system. Inheritance is particularly discriminatory against women in these societies: women inherit only after sons, and female inheritance is only

half of what males of the same familial standing are accorded. In addition, females can be prevented from their rightful inheritance by male heirs who justify that men, not women, are responsible for providing the family home, shelter, food, clothing and medical services. Women then lose the right to sell or mortgage the property. Only 12% of the Agricultural Bank's business is done with women, but there are Agricultural credit societies in the country that offer higher levels of credit and investment opportunity for women. There is also the Association for the Development and Enhancement of Women (ADEW), a micro-credit firm only for female-led households.

Women in *Italy* can acquire, own and administer property under the same conditions as men. Women-led agricultural businesses accounts for almost 30 percent of the country's agricultural business, and Italy has been the European leader in female agricultural entrepreneurs. The informal economy in Italy, which is largely made up of women and immigrants without a social safety net, contributes to 40 percent of the agricultural Gross Domestic Product (GDP). As part of the illegal *caporalato* system, which is widespread in the southern regions, women work for a *caporale*, usually a man, who provides transportation to the place of work and keeps a percentage of their pay. Rural women engaged in agriculture have a low level of education (only 1.7% of women have university degrees) but there is a significant presence of programs and institutions that promote women's financial incentives and entrepreneurship in the agricultural sector.

In *Panama*, female agricultural workers often do not receive remuneration for their work, and those that do receive payment earn 80% of men's pay level. An article in the land law reserves land for indigenous communities and prohibits private ownership of land within certain boundaries so that residents of the community can develop agricultural activities. A barrier women face in land tenure in Panama is that the land titling process lasts for 6-12 months and is expensive. There are financial institutions in place to support women, and one of them has assisted more than 2300 rural women, but most organizations are based in the capital.

New initiatives on land tenure and property rights

The Gender Asset Gap Project, housed at the Centre of Public Policy (CPP) at the Indian Institute of Management Bangalore (IIMB), collected individual level data on women's and men's access to and ownership of property at the national level in Ecuador and Ghana and at the state level in Karnataka, India.

The Gender, Agriculture, and Assets Project, led by the International Food Policy Research Institute (IFPRI) and the International Livestock Research Institute (ILRI), aims to better understand gender and asset dynamics in agricultural development programs in South Asia and Sub Saharan Africa.

Women's Empowerment in Agriculture Index (WEAI) of IFPRI measures the empowerment, agency, and inclusion of women in the agriculture sector in an effort to identify ways to overcome those obstacles and constraints.

Gender, Land & Asset Survey (ICRW) developed and piloted by ICRW and partners to measure the full spectrum of women's and men's property rights, beginning with surveys in South Africa and Uganda.

5.5 Agriculture

Sex-Disaggregated Data in Agricultural Censuses

A primary data source in the agricultural sector is the census. Unlike earlier agricultural censuses, the 1990 round of the World Programme for the Census of Agriculture included some data on women's contributions to agricultural production and their access to productive resources. The 2010 round of the Programme was expected to further enhance sex-disaggregated agricultural data, due to the introduction of the concept of an agricultural sub-holder, namely a role often played by women, allowing for a more nuanced view into the full management of the agricultural holding. Also the concept of the agricultural holder was modified to reflect joint farm management practices and differences including differences in women's and men's roles.

The Agri-Gender Statistics Toolkit was developed by FAO (Food and Agriculture Organization) to improve agricultural data that is sex-disaggregated. The Toolkit provides examples of gender components included in agricultural censuses undertaken in Africa between 1993 and 2006. The Toolkit is structured around 9 data items that are relevant for gender analysis of the agricultural sector:

- Agricultural population and households
- Access to productive resources
- Production and productivity
- Destination of agricultural produce
- Labor and time-use
- Income and expenditures
- Membership of agricultural/farmer organizations
- Food security
- Poverty indicators[32]

Household Agriculture Surveys

An innovative household survey program, the Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA), was established by a grant from the Bill and Melinda Gates Foundation, and is being implemented by the Development and Research group at the World Bank. The program aims to expand agriculture content on surveys in collaboration with national statistics bureaus to foster innovative agricultural development as an essential tool for combating poverty and food insecurity.

In order to improve national statistics across the agricultural sector, the surveys focus on agriculture, livestock and fishery production; food and nutrition security; consumption expenditures; and other socio-economic characteristics at the household level.

The LSMS-ISA project has initiated activities in seven countries in Sub-Saharan Africa—Malawi, Tanzania, Uganda, Nigeria, Niger, Ethiopia, and Mali—with some countries having already undergone multiple rounds of surveying. Tanzania's National Bureau of Statistics was the first partner country to issue a National Panel Survey (TZNPS) that

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[32] Agri-Gender Statistics Toolkit http://www.fao.org/gender/agrigender/en/

included the LSMS-ISA project beginning in 2008-2009, followed by an enhanced second round survey in 2010-2011.

Questionnaires in Tanzania, and elsewhere, were designed to implement a multi-topic framework beginning in the first round with data on household, community, and agriculture characteristics. With a goal of providing high quality and relevant data that can be further improved upon and sustained over time, the TZNPS added fishery and livestock questionnaires in the second round. This assembled a nationally representative data set that includes urban areas, but has a strong focus on the rural and agricultural development of Tanzania. This is important because smallholder farming is the main source of income for many households, but in these households agriculture is only one component of the complex income-generating strategies. Using surveys that detail the multiple non-farm activities can enable cross-sectoral policy analysis to track progress and improve development.

Gender dynamics are an aspect of development that is taken into consideration with this integrated approach by the LSMS-ISA surveys. In Tanzania, information on the household makeup identifies the sex of each individual, which can be taken into account for most subsequent sections of the other questionnaires. For example, in the agriculture survey crop details are accompanied by who made the decision to plant that crop, what inputs to use, and how the earnings would be spent. But this does not directly ask the sex of the individual involved—although it is stated on a different questionnaire and could be reported.

However, data collected on labor by household members and hired labor is sex-disaggregated, including what type of work was performed and the wage paid for the labor. Initially, questionnaires for livestock labor division were not disaggregated by sex, but since the first round the questions have been improved to include this distinction. The fishery survey has yet to incorporate specific gender identification in a sector that, at least at the artisanal level, generally involves a large percentage of women whether it be in the capture, processing, or trade industry. Other sections deal with gender-based violence, crimes, and socio-cultural norms that can be seen to intersect with agricultural production, family life, and economic security.

The LSMS surveys have the potential to become a powerful tool in understanding gender dynamics in low-income, developing country settings because of the emphasis placed on collection of data from multiple subjects on topics with differentiated impacts. The approach with the LSMS-IAS is more nuanced than creating a new module of surveys with gender-specific questions. Instead, the LSMS emphasizes adding gender dimensions throughout the questionnaires to increase the use of the survey as a tool for gender analysis. While these surveys are breaking new ground, inclusion of this gender-sensitive information on the survey will generate more comprehensive baseline data on the role of women in agriculture, the household (i.e. as decision makers), and economic diversification.

Agricultural Science and Technology Indicators

The Agricultural Science and Technology Indicators (ASTI) initiative, managed by the International Food Policy Research Institute (IFPRI), compiles, analyzes, and publicizes internationally comparable data on the institutional developments, investments, and capacity of agricultural research and development (R&D). As a part of this overall data collection, the initiative investigates the gender gap within science and technology (S&T), specifically women's participation in agricultural development.

A study of 67 countries found that only one in five agricultural researchers in the developing world are female; higher attrition rates exist among women enrolled in S&T-related subjects at higher education agencies, or as employed scientists and engineers; and the disparity in the number of women who are in senior or management positions is still significant.

Another study of Sub Saharan Africa found the total capacity of agricultural research and higher education institutions to be increasing; however, the overall quality of capacity in these areas is declining as staff with only Bachelor of Science degrees is noted to be contributing to the increase over a period of 8 years. ASTI also found the prevalence of female professional staff in agricultural R&D is comparatively lower than in fields related to life and social science, but this narrow field of agricultural R&D is supported by female staff that are on average much younger than the pool of male staff.

Food Security and Nutrition

In Bangladesh, although women are highly involved in agriculture, they suffer from higher levels of malnourishment.[33] A recent study indicated that malnutrition levels in Bangladesh are among the highest worldwide. More than half of the pregnant women in the country are anemic and about 30 percent of women suffer from chronic energy deficit. This poor nutritional status of women during pregnancy is one of the main causes of the high incidence of low birth weight amongst newborn children in Bangladesh. Mothers who have been poorly nourished as girls tend to give birth to undernourished infants, thus continuing the circle of malnutrition.[34]

An innovative food bank initiative in Niger seeks to provide a women-led solution to food insecurity. In the face of significant drought in Niger, IFAD and the Belgian Survival Fund established a program for sustainable food supplies, targeting the most vulnerable women in the Maradi region. Women participated in committees and received training to manage food banks. During the hunger season, only women in the community were able to take a food loan from the bank, and were required to repay the bank in food plus interest, in order to restock the bank for the next season. Over 100 food banks were established during 2006-2007, benefiting 26,000 households.[35]

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[33] Nasreen, M. (2004). Gender and Sustainable Development in Bangladesh: Myths and Realities. Paper published in the Environment and Sustainable Development, edited by Prof. Vo Quy et al. Hanoi, Vietnam: Agriculture Publishing House.
[34] S.K. Roy. (nd), Base line Survey on Protecting and Promoting Food Security and Nutrition for Families and children in Bangladesh. ICDDR,B. Dhaka.
[35] World Bank, FAO, IFAD (2009). Gender in Agriculture Sourcebook. Washington, DC: World Bank.

5.6 Women's Participation and Representation

Women's representation in delegations to Rio Conventions

One method of ascertaining women's participation in environmental decision-making is to analyze whether countries are assigning women to international environmental delegations. And one measure of this is the registration of females and males on government participant lists to the Rio Conventions. The most recent example of such research is focused on women's participation in UNFCCC government delegations to COPs and inter-sessional meetings undertaken by Women's Environment and Development Organization (WEDO). The findings from WEDO's research, covering the years 2008-2012, indicate an average of about 30 percent women's participation over 5 years, and an average of 19 percent women serving as heads of delegation over the same period.

The EGI research expands analysis to all three of the Rio Conventions. The EGI Team collected data on females and males registered by governments to attend the Conferences of Parties (COPs) of the UNFCCC, CBD, and UNCCD. Data was collected for each Convention's four or five most recent COPs using the official Lists of Participants available online or provided to the EGI Team directly by the Secretariats. The number of females attending the COP was compared with male participants through analysis of the raw data for each of the 72 countries included in the EGI. Ratios were calculated to control for size of delegation and to simplify the

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data for easy comparison across countries and across the three Conventions, while maintaining intact the comparison of females to males per country. For graphic representation, the female to male ratios were reconfigured as female to male percentages, preserving the relationship between the two. Averages are used when several countries are compiled into regions/groups or as an estimate of overall female participation from all countries at a COP.

The following chart shows the average percentage of female delegates registered to the Rio Convention COPs, comparing the most recent COPs to a COP 4-6 years prior. According to this data, the conclusion is that countries are registering slightly more women on delegations to the CBD than they are sending to the UNFCCC, and that women's participation in the UNCCD is lowest overall and has declined during the period studied whereas CBD and UNFCCC participation has increased over a similar period.

Figure 15: Average Percent of Female Delegates to Rio Convention COPs

Female delegates to recent CBD, UNCCD, and UNFCCC COPs
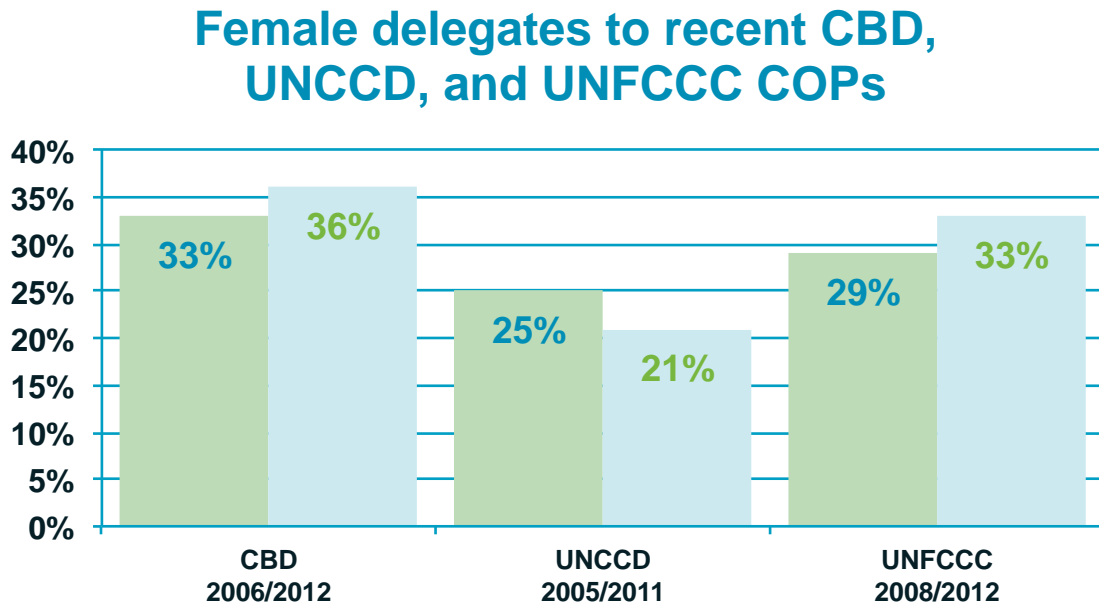
The following chart compares the global average of female to male participation in UNFCCC COPs from 2008 to 2012. While there was a slight drop in female participation during COP15 in Copenhagen (2009), female participation increased again and reached the highest level at COP 18 in Doha (2012).

Figure 16: Average Female Participation in Delegations to UNFCCC COPs

Average Female Participation in Delegations to UNFCCC COPs
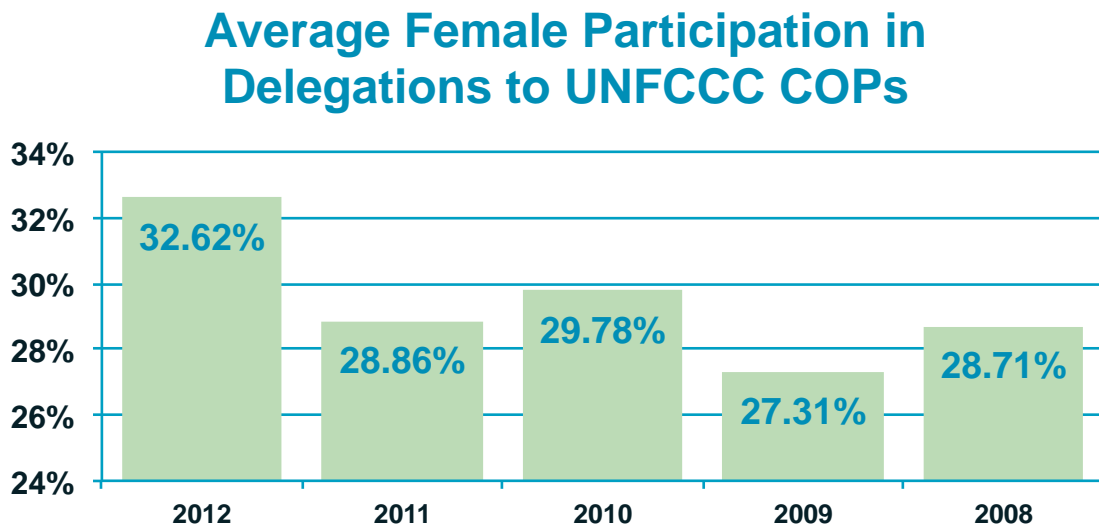
The next chart below shows female participation in the 15 largest government delegations to the most recent UNFCCC COP18 (2012). Thailand and Turkey reached or surpassed gender balance, respectively, and Canada, Norway, and the United States of America—all at 40 percent—exceeded the global average.

Figure 17: Female Participation in 15 Largest Delegations at UNFCCC COP 18

Female participation in 15 largest delegations at UNFCCC COP 18
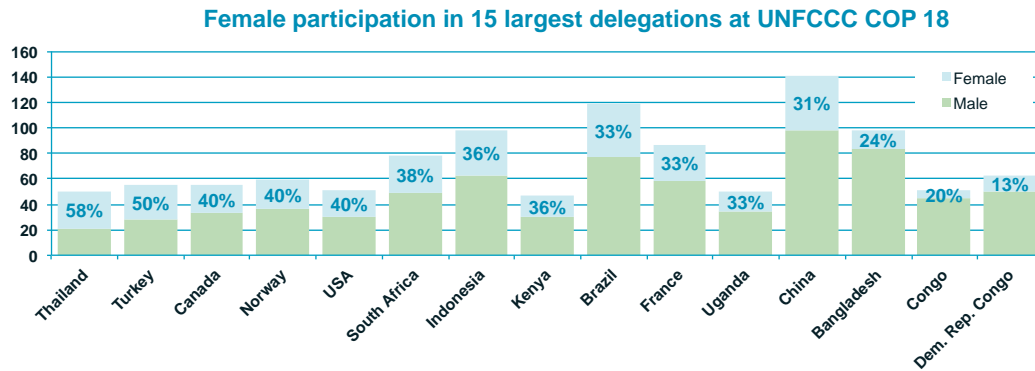
The following chart shows women's participation in UNFCCC COP18—comparing across regions.

Figure 18: Average Female Participation by Region to UNFCCC COP 18

Average Female Participation by Region to UNFCCC COP18

The Environment and Gender Index (EGI) 2013 Pilot
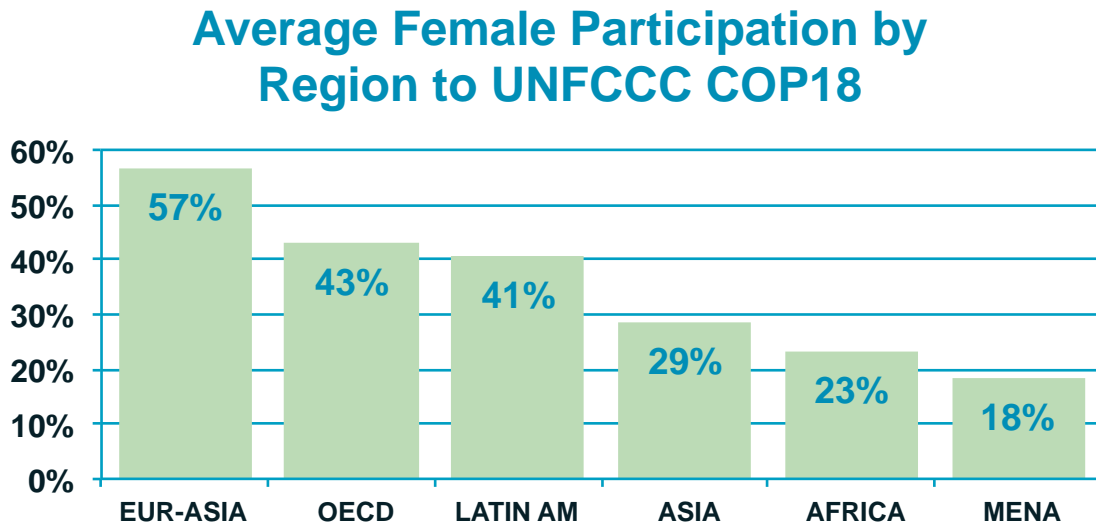
The chart below shows the average women's participation at UNCCD COPs from 2005 through 2011. Female representation at UNCCD COPs has consistently been in the low 20% range.

Figure 19: Average Female Participation at Recent UNCCD COPs

Average Female Participation at Recent UNCCD COPs
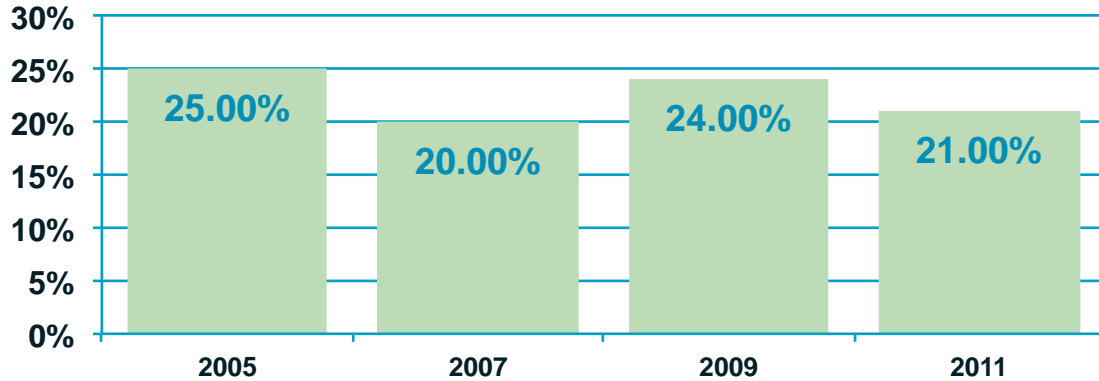
The following chart shows women's participation for the 23 countries in the EGI that had five or more delegates to UNCCD COP in 2011.

Figure 20: Female Participation in Delegations with 5+ Members at UNCCD COP10

Female Participation in Delegations with Five or More Members at UNCCD COP10 (2011)
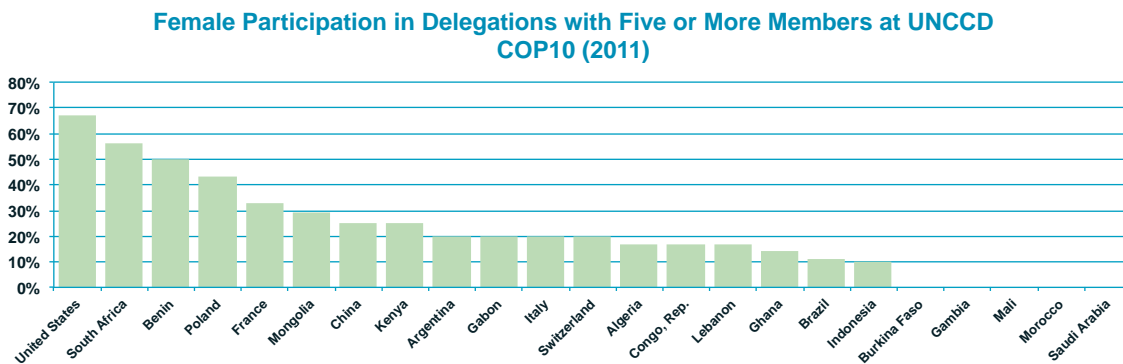
The following chart shows the 15 largest delegations at the UNCCD COP10 in 2011.

Figure 21: Female Participation in Fifteen Largest Delegations at UNCCD COP10

Female Participation in 15 Largest Delegations at UNCCD COP10 in 2011

South Africa 56%, Poland 43%, Mongolia 29%, China 25%, Kenya 25%, Italy 20%, Algeria 17%, Ghana 14%, Brazil 11%, Indonesia 10%, Tanzania 0%, Burkina Faso 0%, Gambia 0%, Saudi Arabia 0%, Turkey 0%
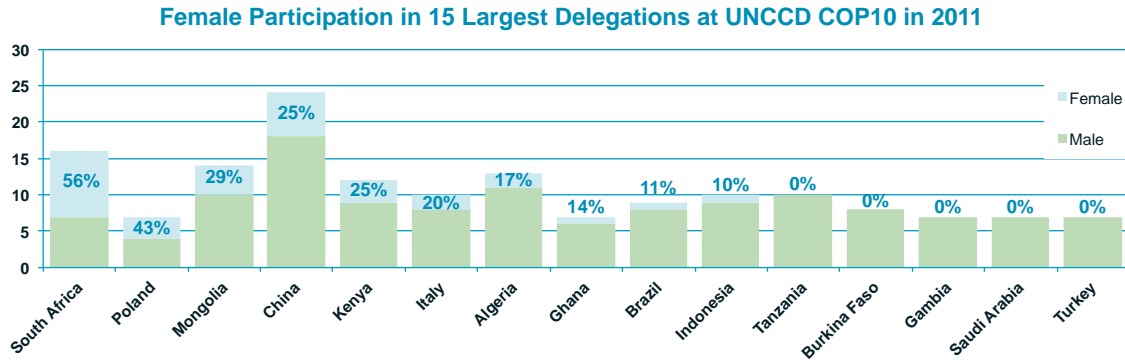
The next chart shows the regional average for delegations of five or more participants at the most recent UNCCD COP in 2011. Eurasia is not included in this chart because there were no countries in this region with delegations of at least 5 participants. As the chart shows, the highest female participation for this COP was from OECD countries, and the lowest female participation was from the MENA region.

Figure 22: Average Female Participation by Region at UNCCD COP10

Average Female Participation by Region at UNCCD COP10

OECD 37%, ASIA 21%, AFRICA 18%, LATIN AM 16%, MENA 9%
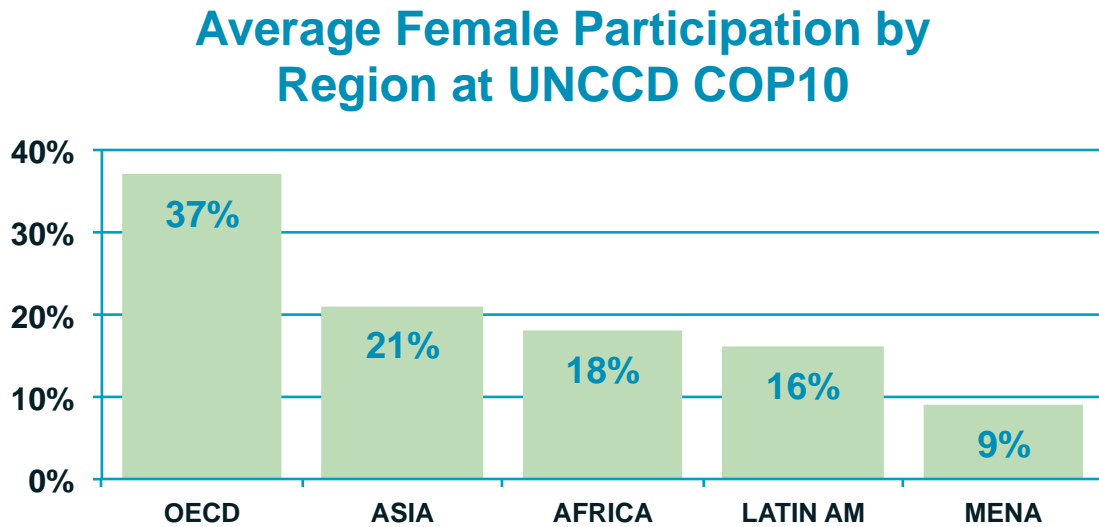
The following chart for CBD shows the average women's participation at recent COPs.

Figure 23: Average Female Participation at Recent CBD COPs

Average Female Participation at Recent CBD COPs

Year	Percentage
2006	33%
2008	27%
2010	31%
2012	36%
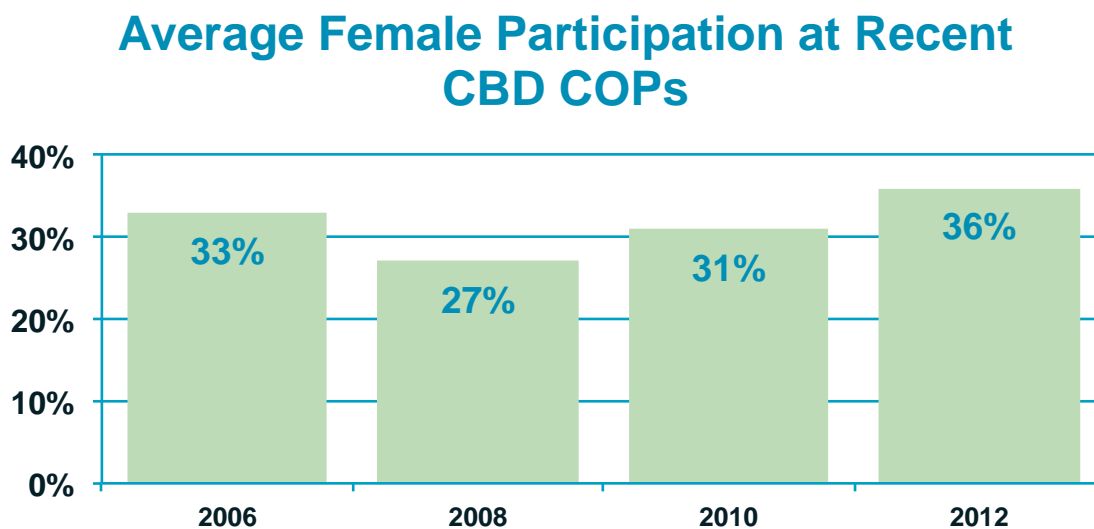
The chart below shows women's participation by country at the most recent CBD COP11 in 2012.

Figure 24: Average Female Participation by Country at CBD COP11

Average Female Participation By Country at CBD COP 11
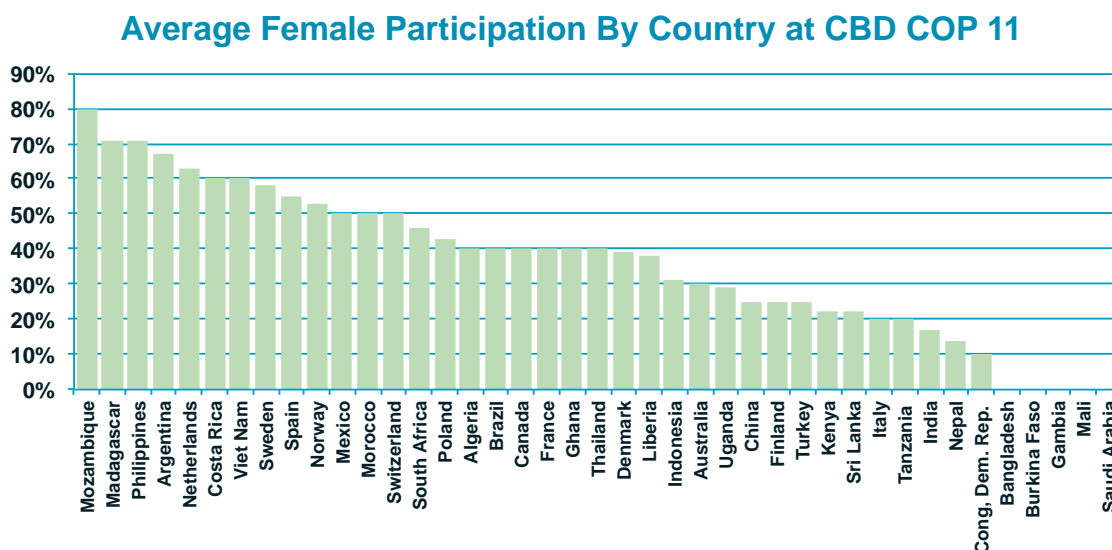
The following chart shows female participation among the 15 largest delegations at CBD COP11 (2012). India's delegation was the largest at this COP—271 participants—but did not fit on the chart below, with over 200 more participants than any other delegation.

This is likely due to the venue of CBD COP being Hyderabad, India. If India were included on the chart, it would fall to the right of Kenya at 17 percent women's participation.

Figure 25: Female to Male Ratio in 15 Largest Delegations at CBD COP11 in 2012

Female to Male Participation Ratio in 15 Largest Delegations at CBD COP11
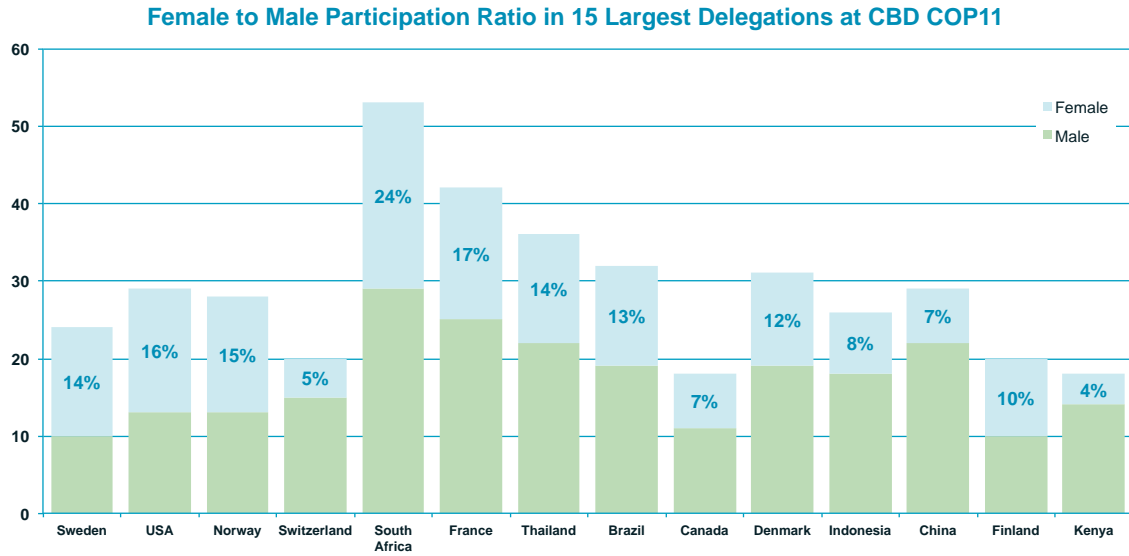
The final chart below represents women's participation by region to CBD COP 11 in 2012.

Figure 26: Female Participation by Region in CBD COP11 in 2012

Female Participation by Region in CBD COP11 in 2012
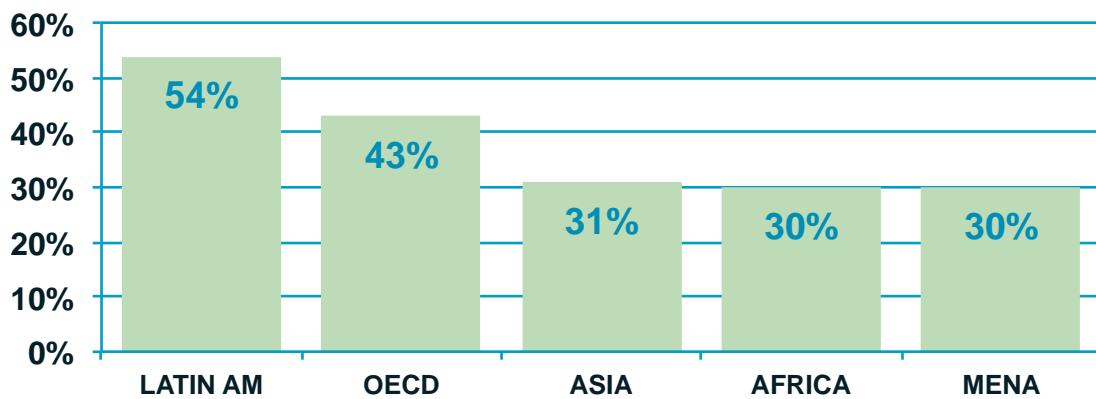
Women's leadership at the ministerial level in environment-related sectors

The EGI Team also created a new data set on women ministers of environment and women ministers of other environment-related ministries such as natural resources, agriculture, energy, climate change, water, forestry, food, land, fisheries, and livestock. Data was gathered online from national government websites, and

thus this information is possibly flawed due to the possibility of out-of-date or incorrect webpages. In some cases, such as Saudi Arabia, a country may not have an environment ministry *per se*, and the equivalent ministry was included. Among the 72 countries studied in the EGI, the map below highlights the EGI countries according to the following categories:

- 12 countries have a female minister of environment and a female minister of another environment-related ministry.
- 9 countries have a female minister of environment.
- 6 countries have a female minister of another environment-related ministries (not the environmental ministry itself).
- 45 countries do not have a female minister of environment or environment-related ministry.

Figure 27: Women Ministers of Environment and Environment-related Ministries Among 72 EGI Countries
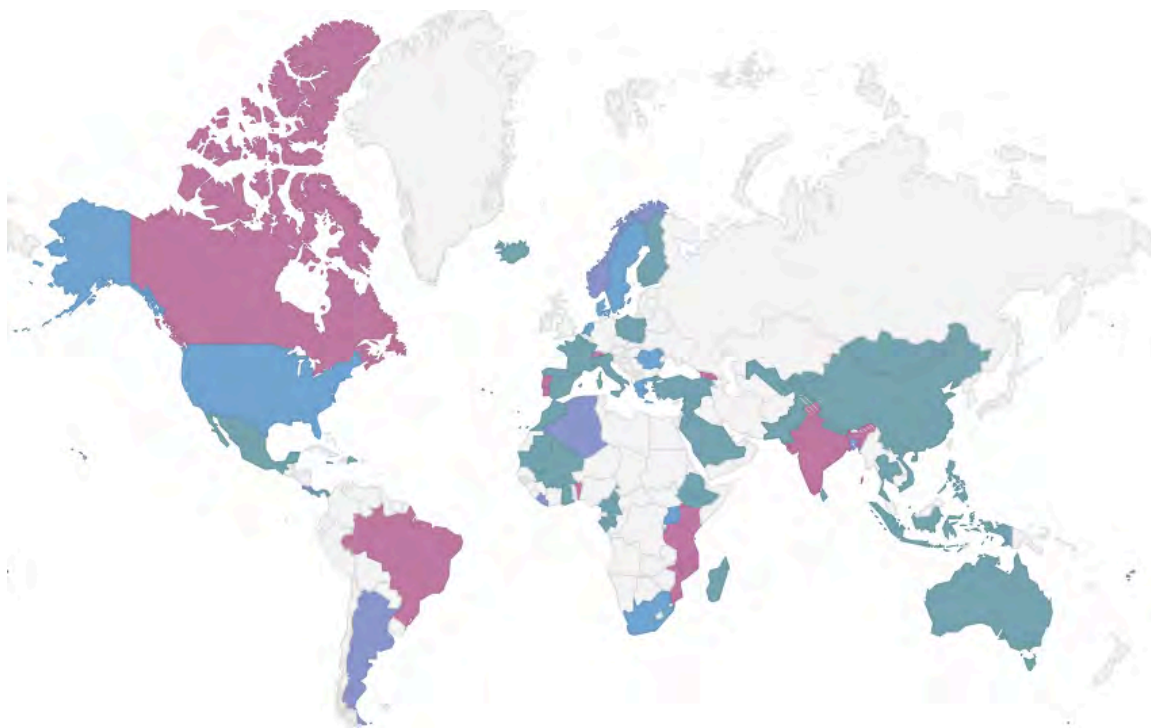
Female minister of both the environment ministry and other environment-related ministry	Denmark, Gambia, Greece, Netherlands, Romania, South Africa, Sweden, Uganda, USA

Female minister of environment	Benin, Brazil, Canada, Egypt, Georgia, India, Kenya, Malawi, Mozambique, Portugal, Switzerland, Tanzania
Female minister of other environment-related ministry	Algeria, Argentina, Bangladesh, Costa Rica, Liberia, Norway
No female minister of either the environment ministry or other environment-related ministry	Armenia, Australia, Burkina Faso, Burundi, Cameroon, China, Dem Rep Congo, Congo, Dominican Republic, Ethiopia, Fiji, Finland, France, Gabon, Ghana, Iceland, Indonesia, Italy, Jamaica, Jordan, Kyrgyz Republic, Lao PDR, Lebanon, Madagascar, Mali, Mauritania, Mexico, Moldova, Mongolia, Morocco, Nepal, Pakistan, Panama, Philippines, Poland, Saudi Arabia, Spain, Sri Lanka, Syrian Arab Republic, Tajikistan, Thailand, Turkey, Uzbekistan, Vietnam, Yemen

Women's participation in community forest management

In one particular country—Nepal—women's participation at the level of community forest management has measurably advanced. Over 14,000 Community Forest User Groups (CFUGs) manage 1.2 million hectares of the country's forested land. Nepal's community forestry policy recognizes women as primary users of forest resources and recommends that one third of executive committee members should be women. Nevertheless, policy is still being translated into practice. Nepal's historical hierarchies endure despite formal laws guaranteeing equal treatment to women and men, and to various castes. CFUGs operate in this setting of gender inequality and social hierarchy, resulting in continued exclusion of women and other marginalized groups from decision-making and accessing resources and related financial benefits. Women who serve on Executive Committees are sometimes seen as "token" members, where their views are not valued and they rarely serve in officer positions. While women are the primary users of forest resources, including for fuel and fodder, one study found that only about 17 per cent of households sent women to CFUG meetings.[36]

Correlating women's participation with environmental sustainability

In recent years, new studies have emerged connecting women's participation in decision making to the state of the environment.

The 2011 Human Development Report (HDR), which is focused on sustainability and equity, offered new evidence that sustainability is inextricably linked to women's participation in environmental decision making. The report noted that:

- Countries with higher female parliamentary representation are more likely to set aside protected land areas, according to a study of 25 developed and 65 developing countries.
- Countries with higher female parliamentary representation are more likely to ratify international environmental treaties, according to a study of 130 countries

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[36] Ghimire-Bastakoti, K. and Bastakoti, R. (2004). 'Social Inclusion in Community Forestry: Why are women frequently excluded from decision-making and leadership in Nepal?,' paper presented at Woman's Global Connection International Conference: Building Community Leadership in a Global Society. San Antonio, Texas, July 29-31, 2004.

with about 92 percent of the world's people.
- Of the 49 countries that reduced carbon dioxide emissions between 1990 and 2007, 14 were very high HDI countries, 10 of which had higher than average female parliamentary representation.[37]

There is also evidence that the number of women's and environmental NGOs per capita in a country have a positive correlation with reducing various forms of environmental degradation. In a study of 61 countries between 1990 and 2005, there was a connection between high levels of these NGOs and lower rates of deforestation, perhaps because women have an incentive to avert the negative effects that deforestation causes on their workload, income, and health[38].

Women's participation and education in climate change fields in Europe

In the context of implementation by European countries of environmental agreements in the Beijing Platform for Action, the European Institute for Gender Equality (EIGE) has analyzed women's participation and education in sectors most relevant to climate change. Below some of the charts and analysis from EIGE's research is highlighted.

The following EIGE chart compares women and men tertiary graduates in climate change related fields among EU-27 countries in 2009. Women graduates are lowest in engineering and engineering trades, low in transport services, and highest in life sciences. In terms of proportion to men graduates, women exceed men in the life sciences discipline and are equal to the number of men in the environmental protection and manufacturing and processing disciplines. While the majority of students graduating in life science disciplines are women, representation in technological fields is much lower at 27 percent.

Source: Eurostat, Education Statistics (educ_gradS)
Note: The data show the percentage of women and men graduates from ISCED level 5 and 6 educational programmes across the EU-27 in 2009.

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[37] UNDP (2011). Human Development Report 2011: Sustainability and Equity: A Better Future for All. New York: UNDP.
[38] Shandra, J.M, Shandra, C.L., and London, B. (2008). Women, non-governmental organizations, and deforestation: a cross-national study. *Population and Environment*. 30 (48-72).

The following EIGE chart presents data on women tertiary graduates in selected fields among EU-27 countries between 2000 and 2009, showing a relatively steady state in the percentage of women in these fields for almost a decade.
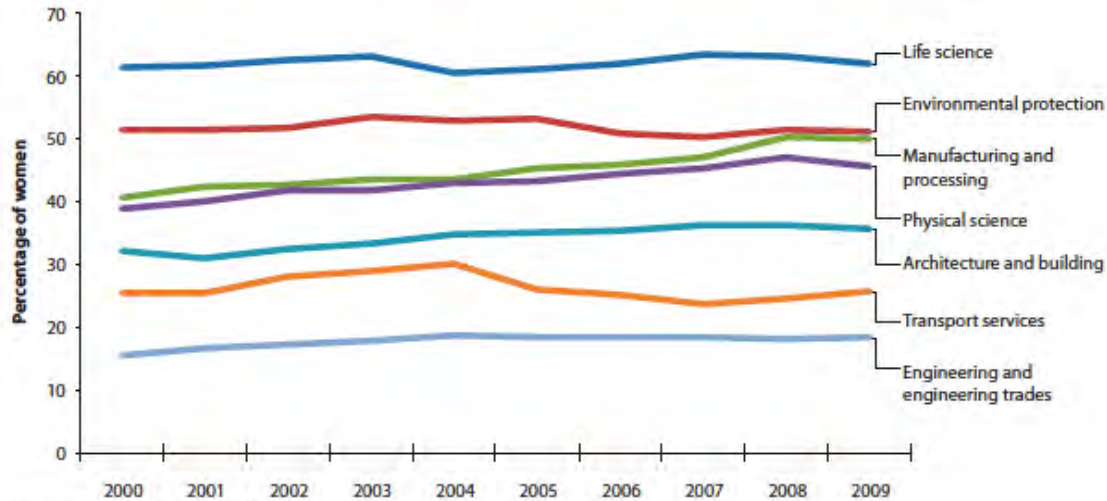
Source: Eurostat, Education Statistics (educ_grad5)

Note: The data show the change in the percentage of female graduates from 2000-2009 for each of the seven fields most relevant to natural sciences and technologies.

This study of European countries found that women hold about 25.6 percent of high-level decision making positions in the environment, transport, and energy sectors. It also found that women's participation is higher in the environmental sector than in transport and energy, and the same holds true for parliamentary committees. The final chart below displays the percentage of women in high-level positions related to climate change in ministries responsible for the environment, transport, and energy in EU countries.
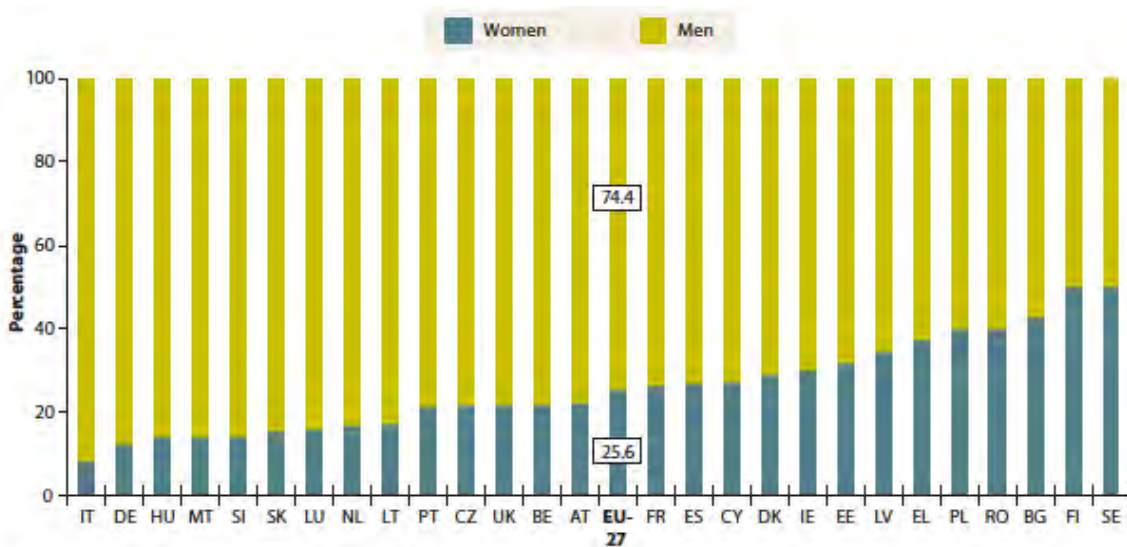
Source: Data collected from Member States August–October 2011

Note: Total percentage of women in high-level decision-making related to climate change in Ministries responsible for the sectors of the environment, transport and energy, by Member State: in Italy, the level 2 position in the energy authority was vacant at the time when the report was prepared; for the energy sector in Romania, level 2 data have not been confirmed and level 3 data were not available from the institution.

The Environment and Gender Index (EGI) 2013 Pilot

5.7 Climate Change, Disasters, and Energy

Data on disasters

At the international level, data on the gendered aspects of disasters is limited, due to the lack of standardized definitions and data collection tools, the fact that mechanisms such as the International Disaster Database at the Center for Research on the Epidemiology of Disasters (CRED EM-DAT) do not yet host sex-disaggregated data, and not all countries collect this information.[39]

One positive undertaking to collect sex-disaggregated data was a study conducted by researchers Neumayer and Plümper that analyzed the impact of disasters on the gender gap in life expectancy. In their review of disasters in up to 141 countries between 1981 and 2002, the researchers found that disasters on average led to greater fatalities for women than men, or

> ***Send feedback***
> Do you have information or stories about the intersection of gender and climate change in your country? What lessons have been learned in the policy realm?
> environmentgenderindex.org/contact

fatalities for women at an earlier age. Unfortunately, the data collected does not provide country level data that could be used by the EGI, however the analysis provided a window into the kind of information that could be available with sex-disaggregated data. The conclusion of their analysis was that socially constructed vulnerabilities of women lead to higher female mortalities in disasters.[40] Other studies suggest that mortality rates for women and men are largely dependent on the type of disaster and the country or region in question, and in some cases more men than women die in disasters.[41]

In the face of disasters, in many countries more women than men face difficulties in accessing information that could affect their wellbeing or survival. As part of an initiative of GrameenPhone in Bangladesh, mobile phones are being used by women to alert authorities about risks in infrastructure, such as bridge collapses.[42] Mobile phones are also being used in Kenya to connect women farmers with agricultural extension services.[43] The EGI Team intended to include data on mobile phones as one measure of women's access to information, as recommended by experts on this topic. However, the data was not available in the format needed. The hope is that other measures of women's access to information will emerge to provide more nuanced information in the context of disasters, farming, and other areas, and to spur similar communications innovations.

Climate Change and Gender Action Plans (ccGAPs)

Another effort assesses the extent of individual countries' gender inequalities and progress on policy and programming using climate change as a multi-sectoral platform. Since 2010, IUCN on behalf of the Global Gender Climate Alliance (GGCA) has been

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[39] Cheryl Anderson, personal communication, May 8, 2013.
[40] Neumayer, Eric and Thomas Plumper (2007). The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002
[41] For example, see Chapter 7 of: UN Department of Economic and Social Affairs (2010). The World's Women 2010: Trends and Statistics.
[42] See GrameenPhone http://www.adb.org/sites/default/files/pub/2010/ban-Impact-Stories.pdf
[43] See report of the Technical Centre for Agricultural and Rural Cooperation http://publications.cta.int/media/publications/downloads/1689_PDF.pdf

supporting countries to turn their political commitments into on-the-ground action by formulating Climate Change and Gender Action Plans (ccGAPs). Rooted in workshops across sectors that integrate the perspectives and expertise of women and men from every level (i.e. grassroots women's organizations representatives through highest-level Ministry officials) ccGAPs foster a multi-stakeholder participatory approach to synergize national climate change policies and programs uniquely from a gender perspective, and then elaborate clear, innovative action plans to be undertaken by multiple actors, at multiple levels.

Beginning with a comprehensive analysis of the reality of climate change in a country, as well as the situation of women and gender equality, the ccGAPs are anchored in existing national policy on climate change—and then push well beyond business as usual. The activities that emerge from national workshops are innovative, out-of-the-box and, importantly, entrenched in local contexts and thus locally owned. From a women-owned green water taxi network to solve the transportation problem in Cairo, to 'climate change health kits' that women can assemble and disseminate with critical medicinal plants throughout Mozambique, to early warning networks of women in coastal communities Bangladesh, ccGAPs provide unique action plans across priority sectors.

The development of a ccGAP is a key moment in a country's acknowledgement that gender equality is central to effective climate change decision-making, implementation and, ultimately, resilience. The ccGAPs have synergized existing policy and planning – and have triggered transformative change in national approaches to climate change response thereafter. The Kingdom of Jordan, for example, revisited its overall climate change policy after conducting a ccGAP and integrated gender as a priority throughout its national approach. Mozambique has made connections between priority sectors including forestry, coastal management and agriculture—through a gender lens—and has further enhanced SADC protocols on environmental management drawing from its ccGAP. Egypt is integrating its ccGAP into its Third Communication to the UNFCCC.

Workshop participants have noted that having a ccGAP in place has been useful at the moment a country is ready to undertake the next phase of adaptation planning, set emissions reductions goals, prepare REDD+ plans, or to reform policy in any climate-related sector. Civil society and other institutions have noted that the ccGAPs provide a platform for coordinated actions, and a fountain of action ideas, on the gender dimensions of climate change across multiple actors at the national and local levels.

Jordan—Excerpts of the ccGAP have been used as primary indicators for the United Nations joint project on adaptation and climate change around the Zarqa basin.

Liberia—Elements of the ccGAP were incorporated into the country's First National Communication to the UNFCCC, in order to apply a gender approach.

Nepal—Nepal's Ministry of Science, Technology, and Environment (MoSTE) used the ccGAP to develop training materials for the MoSTE/UNDP pilot project that is intended to raise awareness on gender and climate change linkages.

Tanzania—The ccGAP has become part of the country's comprehensive law reform program whereby sectors required to review and integrate climate change issue in their work now must do so with a gender perspective.

Mozambique—The ccGAP was the catalyst for the inclusion of a gender perspective in the development of the country's Strategic Program for Climate Resilience (SCPR) under the Climate Investment Funds.

Egypt—Following the development of the ccGAP, the country's Minister of Environment announced that its Gender Department would work to fully integrate the ccGAP into the country's third National Communication to the UNFCCC.

League of Arab States—Inspired by the ccGAP, a flagship report developed by the League of Arab States and the World Bank will now dedicate a full chapter to gender. The report will identify women as agents of change and illustrate to decision-makers how a gender-responsive approach can be leveraged to build countries' resilience to climate change.

Costa Rica—The ccGAP spurred the Ministry of Environment to work with the Ministry of Transportation, the National Institute of Women, the Climate Change Office, and others to conceive a new initiative that will empower women to take a greater role in the transportation industry by training to be operators of public transport systems, including buses, taxis, and other vehicles.

Innovations in gender and climate change

In *Mozambique*, the ccGAP process identified the need for climate change adaptation practices that employ the use of women's traditional medicinal knowledge. The innovation that emerged was the creation of Climate Change Health Kits managed by women from local communities. Medicinal plants in each region will be identified that can prevent vector-borne diseases (e.g. citronella), improve water quality (e.g. moringa), and treat other health issues that are on the rise due to climate change. Women and community health workers will be trained and provided supplies in collaboration with the Traditional Healers Union and the private sector, and the kits will be disseminated to pharmacies and households in need.

In *Liberia*, the country's entire meteorological and hydrological montoring system, including 47 hydrometric stations, was destroyed during the civil war. This has severely impeded the country's ability to make informed decisions that hinge on unexpected or long-term changes in the weather. The ccGAP process in Liberia thus proposed an innovative meteorological data collection system led by women. In collaboration with relevant ministries, women in distinct regions of the country will receive training and tools for collecting meteorological data, and also have the opportunity to leverage an incentive system for carrying out the data collection to simultaneously increase income generation.

Gender equality certification in the climate change arena

The [Women's Carbon Standard (WCS)](), also known as W+, is a standard developed by Women Organizing for Change in Agriculture and Natural Resources Management (WOCAN) to ensure that women—an integral part of mitigation projects especially in the Global South—are compensated for their contributions and receive environmental, social, and economic benefits. Like the EGI, the WCS is a new tool that validates and encourages measurement at the intersection of gender and environment.

The WCS is a set of project design and implementation requirements for projects that can be applied to complement existing carbon standards by supporting women's involvement in compliance markets—such as the Clean Development Mechanism, or in

voluntary markets. The WCS envisions quantifiable outcomes, by measuring the progress women make in respect to their income and assets, time, education and knowledge, leadership, food security, and health; all leading to a better quality of life. Credits generated from projects meeting the WCS standard will be WCS-Certified.

WCS aims to raise the profile of women and increase their access and contribution to climate change mitigation projects and finance mechanisms. The intent is to provide new resources for women's empowerment initiatives, and return revenue from the sale of carbon credits back to women, their communities, and investors, while also enhancing their environment. Like other monitoring tools, the WCS has the potential in subsequent years to enhance the EGI with enhanced indicators and data on women's progress in climate change.

Measuring household greenhouse gas emissions

An initiative in Australia is counting how many women contribute to the reduction of greenhouse gases at the household level. The campaign—1 Million Women—draws from the fact that women in Australia make over 70 percent of the purchasing decisions that affect the household environmental footprint and influence at least 80-90 percent of those decisions. Members of the campaign self-report their own activities and calculate the projected carbon savings using online tools. By mid-2013, the campaign had almost 80,000 registered members who had committed to cut 104,726 tonnes of carbon dioxide. The goal of the campaign is to cut over a million tonnes of carbon dioxide pollution, equivalent to taking 240,000 cars off the road for a year.

Bringing visibility to gender differences in the energy sector

In rural poor households in Nepal, cooking can constitute up to 92 percent of total energy demand from traditional biomass. Similarly in Bangladesh, biomass in the form of fuel wood, tree leaves, and crop and animal residues is the primary form of energy. According to a survey by the Bangladesh Institute for Development Studies, a rural household uses nearly three metric tons of biomass per year, and most of this is used for cooking and parboiling rice. Biomass burned on open fires or inefficient stoves produces high levels of indoor air pollution. This is a major health hazard, particularly for women and children, who suffer from chronic obstructive pulmonary disease. [44] Women and girls can also spend 3-4 hours per day collecting fuel wood, which limits school attendance. The use of biomass for energy is one of the drivers of deforestation and a contributor to the deterioration of biodiversity.

One initiative to bring visibility to women's and men's different roles in the energy sector is focused on Zambia. ENERGIA (the International Network on Gender and Sustainable Energy) and Zambia's Department of Energy intend to assist the Central Statistics Office expand data collection to measure energy use by both women and men. Their gender analysis of Zambia's energy sector concludes:

> Women's role in Zambian communities is that of providers of energy for
> the household, but they are not decision makers in terms of type of

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[44]Nepal Labor Force Survey (2008); and World Health Organization (2000) Addressing the Impact of Household Energy and Indoor Air Pollution on the Health of the Poor: Implications for Policy Action and Intervention Measures. Paper Prepared for the Commission on Macroeconomics and Health. Washington DC, 3-4 May 2000.

energy and technology used or even improvements required. Although in recent years the Zambian government has made strategic interventions in the energy sector, these have not addressed the challenges women face in accessing energy because of the lack of information about the situation and inadequate gender disaggregated data. Most of the reports and documents are silent on gender and energy issues; therefore the real position of women, as far as energy is concerned, has not yet been addressed by those in a position to do something about the problem.

The initiative recommends that the Zambian Central Statistics Office extend its data collection beyond charcoal and firewood to other energy sources that women use such as electricity, liquefied petroleum gas, and coal; capture the types of small and medium enterprises that need energy and whether a woman or man is running them; and determine the decision making process for energy use inside households.[45]

In many countries renewable energy technologies are increasingly being promoted as a solution to a number of energy-related problems, including mitigation of climate change through the reduction of greenhouse gas emissions and efforts toward energy security at national levels. If these goals are to be achieved, it will be necessary to challenge the traditional view of energy planning as the simple provision of energy sources and appropriate conversion of technologies, to include the social and economic circumstances of the groups for whom energy is being provided.

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[45] Zambia Gender and Energy Mainstreaming Strategy 2011-2013 http://www.energia-africa.org/where-we-work/zambia/zambia-gender-and-energy-mainstreaming-strategy-2011-2013/

6. The IUCN Global Gender Office

The EGI is a project of the Global Gender Office of International Union for Conservation of Nature (IUCN), a leader on gender issues within the environmental sector. Please contact us at the following website about your country's rank in the EGI, suggestions for the next round of the EGI, or technical support and training on gender and environment:

environmentgenderindex/contact

For over two decades, governments, major organizations, and conventions have sought out the IUCN Global Gender Office for policy and institutional guidance, capacity-building, and knowledge development. Here is what we have achieved:

Developed more than 70 sector-specific gender tools. Expertise spans biodiversity, climate change, coastal and marine management, dry lands, energy, forestry (including REDD+), protected areas, sustainable use, and water, amongst others. A training manual on gender and climate change is available in five languages and referenced on more than 14,000 websites.

Trained more than 15,000 people throughout the world. Governments, civil society, universities, and development organizations have all built capacity through these trainings. Orientation sessions for government delegates from over 100 countries have become a driving force behind the use of a gender perspective in national policy and planning.

Guided the development of major institutional gender frameworks. IUCN partnered with UNEP, CBD, and UNCCD to develop and operationalize their gender action plans and policies, and collaborated with numerous governments to develop national gender and climate change strategies and national gender and REDD+ roadmaps. In early 2013, IUCN completed the global gender review of the World Bank's Climate Investment Funds.

Spearheaded strategic collaborations to elevate gender to a global stage. IUCN co-founded the Global Gender and Climate Alliance (GGCA), which convenes 60 UN agencies and civil society organizations; and the Network of Women Ministers and Leaders for the Environment.

Established in 1948, International Union for Conservation of Nature (IUCN) helps the world find pragmatic solutions to our most pressing environment and development challenges. The IUCN Red List of Threatened Species™ is widely recognized as the most comprehensive, objective global approach for evaluating the conservation status of plant and animal species.

Appendix

Appendix A: Country Profiles

Country Groupings Explained
The following pages provide additional country level detail of the EGI scores and rankings as well as additional country level data. Below are the regional and income group classifications used. Further indicator level country scores are presented later in the Appendix as well as a detailed description of the additional country level data.

Regional Country Groups
The EGI regional country groups (shown in Table 11) are based on the World Bank Classifications with two modifications: 1) We chose to categorize all OECD countries as the 'OECD' region in order to consolidate these countries into one group; 2) we combined the South Asia and East Asia regional categories to create the Asia category.

Table 11: Regional Country Groups

Africa: 20 countries	Asia: 13 countries	OECD: 16 countries	Eurasia: 8 countries	MENA: 8 countries	Latin America and Caribbean: 7 countries
1. Benin	1. Bangladesh	1. Australia	1. Armenia	1. Algeria	1. Argentina
2. Burkina Faso	2. China	2. Canada	2. Georgia	2. Egypt	2. Brazil
3. Burundi	3. Fiji	3. Denmark	3. Kyrgyzstan	3. Jordan	3. Costa Rica
					4. Dominican Republic
4. Cameroon	4. India	4. Finland	4. Moldova	4. Lebanon	
5. Congo, Dem. Rep.	5. Indonesia	5. France	5. Romania	5. Morocco	5. Jamaica
6. Congo, Rep.	6. Laos	6. Greece	6. Tajikistan	6. Saudi Arabia	6. Mexico
7. Ethiopia	7. Mongolia	7. Iceland	7. Turkey	7. Syria	7. Panama
8. Gabon	8. Nepal	8. Italy	8. Uzbekistan	8. Yemen	
9. Gambia	9. Pakistan	9. Netherlands			
10. Ghana	10. Philippines	10. Norway			
11. Kenya	11. Sri Lanka	11. Poland			
12. Liberia	12. Thailand	12. Portugal			
13. Madagascar	13. Viet Nam	13. Spain			
14. Malawi		14. Sweden			
15. Mali		15. Switzerland			
16. Mauritania		16. USA			
17. Mozambique					
18. South Africa					
19. Tanzania					
20. Uganda					

Income-based Country Groups

The EGI income-based country groups (shown in Table 12) are based on the World Bank Classification of income groups. Economies are divided according to 2012 GNI per capita, calculated using the World Bank Atlas method.[46] The groups are: low income = $1,035 USD or less; lower middle income = $1,036 - $4,085 USD; upper middle income = $4,086 - $12,615 USD; and high income = $12,616 or more.

We chose to include a separate OECD category for all high Income countries that are OECD members. Saudi Arabia was the only non-OECD country that was also a high income country. We added Saudi Arabia with countries in the Upper Middle Income group and renamed this category 'High/Upper Middle Income'.

Table 12: Country Income Groups

OECD: 16 countries	High /Upper Middle Income: 18 countries	Lower Middle Income: 20 countries	Lower Income: 18 countries
1. Australia	1. Algeria	1. Armenia	1. Bangladesh
2. Canada	2. Argentina	2. Cameroon	2. Benin
3. Denmark	3. Brazil	3. Congo, Rep.	3. Burkina Faso
4. Finland	4. China	4. Egypt	4. Burundi
5. France	5. Costa Rica	5. Georgia	5. Congo, Dem. Rep.
6. Greece	6. Dominican Republic	6. Ghana	6. Ethiopia
7. Iceland	7. Fiji	7. India	7. Gambia
8. Italy	8. Gabon	8. Indonesia	8. Kenya
9. Netherlands	9. Jamaica	9. Lao	9. Kyrgyzstan
10. Norway	10. Jordan	10. Mauritania	10. Liberia
11. Poland	11. Lebanon	11. Moldova	11. Madagascar
12. Portugal	12. Mexico	12. Mongolia	12. Malawi
13. Spain	13. Panama	13. Morocco	13. Mali
14. Sweden	14. Romania	14. Pakistan	14. Mozambique
15. Switzerland	15. Saudi Arabia	15. Philippines	15. Nepal
16. USA	16. South Africa	16. Sri Lanka	16. Tajikistan
	17. Thailand	17. Syria	17. Tanzania
	18. Turkey	18. Uzbekistan	18. Uganda
		19. Viet Nam	
		20. Yemen	

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[46] For a detailed description of the World Bank Atlas method see http://data.worldbank.org/about/country-classifications/world-bank-atlas-method

Algeria

MENA
High/Upper Middle Income

Rank: 59   **Score: 44**
Regional rank: 6 (out of 8 countries)
Income level rank: 18 (out of 18 countries)

The relative position of Algeria at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	79	6	9
2 Ecosystem	28	7	17
3 Gender-based rights and participation	18	3	16
4 Governance	17	7	18
5 Gender-based education and assets	79	1	7
6 Country-reported activities	22	4	7
Additional Country Level Data			
GDP per capita PPP (USD)	**$5,404**	Women working in the informal sector	n/a
Women agriculture holders	4%	Women engaged in vulnerable employment	34%
Female graduates in Science	56%	Female Internet users	n/a
Global Environment Facility (GEF) projects	60%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

Argentina

Latin America & Caribbean
High/Upper Middle Income

Rank: 20   **Score: 68**
Regional rank: 3 (out of 7 countries)
Income level rank: 4 (out of 18 countries)

The relative position of Argentina at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	89	1	1
2 Ecosystem	64	5	8
3 Gender-based rights and participation	75	1	2
4 Governance	48	7	12
5 Gender-based education and assets	88	1	2
6 Country-reported activities	17	6	11
Additional Country Level Data			
GDP per capita PPP (USD)	**$11,452**	Women working in the informal sector	50%
Women agriculture holders	18%	Women engaged in vulnerable employment	16%
Female graduates in Science	48%	Female Internet users	n/a
Global Environment Facility (GEF) projects	29%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	58%

Armenia

Eurasia
Lower Middle Income

Rank: 37   **Score: 54**

Regional rank: 6   (out of 8 countries)
Income level rank: 7   (out of 20 countries)

The relative position of Armenia at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	80	2	3
2 Ecosystem	31	8	18
3 Gender-based rights and participation	62	6	7
4 Governance	48	3	4
5 Gender-based education and assets	61	7	9
6 Country-reported activities	4	7	19

Additional Country Level Data			
GDP per capita PPP (USD)	$3,338	Women working in the informal sector	13%
Women agriculture holders	n/a	Women engaged in vulnerable employment	42%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	33%	Female mobile phone subscribers	59%

Australia

OECD

Rank: 10   **Score: 78**

Regional rank: 10   (out of 16 countries)
Income level rank: 10   (out of 16 countries)

The relative position of Australia at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	9	9
2 Ecosystem	81	9	9
3 Gender-based rights and participation	61	13	13
4 Governance	87	9	9
5 Gender-based education and assets	97	11	11
6 Country-reported activities	16	3	3

Additional Country Level Data			
GDP per capita PPP (USD)	$67,036	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	7%
Female graduates in Science	47%	Female Internet users	78%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Bangladesh

Asia
Low Income

Rank: 60   **Score: 43**

Regional rank: 12   (out of 13 countries)
Income level rank: 12   (out of 18 countries)

The relative position of Bangladesh at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 18 countries)
1 Livelihood	47	12	4
2 Ecosystem	55	10	13
3 Gender-based rights and participation	24	13	18
4 Governance	36	9	10
5 Gender-based education and assets	54	11	6
6 Country-reported activities	48	2	3
Additional Country Level Data			
GDP per capita PPP (USD)	**$747**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	87%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	13%	Female mobile phone subscribers	27%

Benin

Africa
Low Income

Rank: 57   **Score: 44**

Regional rank: 10   (out of 20 countries)
Income level rank: 10   (out of 18 countries)

The relative position of Benin at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	34	10	8
2 Ecosystem	99	1	1
3 Gender-based rights and participation	56	9	8
4 Governance	64	2	1
5 Gender-based education and assets	3	20	18
6 Country-reported activities	34	11	10
Additional Country Level Data			
GDP per capita PPP (USD)	**$752**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	96%
Female graduates in Science	30%	Female Internet users	n/a
Global Environment Facility (GEF) projects	38%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	21%	Female mobile phone subscribers	26%

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Brazil

Latin America & Caribbean
High/Upper Middle Income

Rank: 24   **Score: 66**

Regional rank: 6   (out of 7 countries)
Income level rank: 8   (out of 18 countries)

The relative position of Brazil at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	84	2	6
2 Ecosystem	81	4	5
3 Gender-based rights and participation	60	6	8
4 Governance	66	3	4
5 Gender-based education and assets	65	6	12
6 Country-reported activities	27	4	6

Additional Country Level Data			
GDP per capita PPP (USD)	$11,340	Women working in the informal sector	46%
Women agriculture holders	n/a	Women engaged in vulnerable employment	22%
Female graduates in Science	40%	Female Internet users	40%
Global Environment Facility (GEF) projects	36%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	14%	Female mobile phone subscribers	58%

Burkina Faso

Africa
Low Income

Rank: 47   **Score: 48**

Regional rank: 6   (out of 20 countries)
Income level rank: 4   (out of 18 countries)

The relative position of Burkina Faso at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	31	13	11
2 Ecosystem	90	2	2
3 Gender-based rights and participation	58	5	6
4 Governance	51	6	4
5 Gender-based education and assets	35	15	15
6 Country-reported activities	42	8	7

Additional Country Level Data			
GDP per capita PPP (USD)	$634	Women working in the informal sector	n/a
Women agriculture holders	8%	Women engaged in vulnerable employment	93%
Female graduates in Science	24%	Female Internet users	n/a
GEF Projects	50%	Legal quotas for women in policy	Yes
Female headed households (rural)	8%	Female mobile phone subscribers	26%

Burundi

Africa
Low Income

Rank: 68   **Score: 37**

Regional rank: 18   (out of 20 countries)
Income level rank: 17   (out of 18 countries)

The relative position of Burundi at the category level

Category	Overall score (Normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	25	16	14
2 Ecosystem	65	7	7
3 Gender-based rights and participation	64	4	4
4 Governance	15	19	17
5 Gender-based education and assets	39	14	14
6 Country-reported activities	23	17	15

Additional Country Level Data			
GDP per capita PPP (USD)	**$251**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	9%	Female Internet users	n/a
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	n/a	Female mobile phone subscribers	26%

Cameroon

Africa
Lower Middle Income

Rank: 63   **Score: 40**

Regional rank: 14   (out of 20 countries)
Income level rank: 15   (out of 20 countries)

The relative position of Cameroon at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 20 countries)
1 Livelihood	43	4	17
2 Ecosystem	55	14	11
3 Gender-based rights and participation	58	6	8
4 Governance	32	15	14
5 Gender-based education and assets	30	17	20
6 Country-reported activities	23	16	10

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,151**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	87%
Female graduates in Science	n/a	Female Internet users	n/a
GEF projects	60%	Legal quotas for women in policy role	No
Female headed households (rural)	23%	Female mobile phone subscribers	26%

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Canada

OECD

Rank: 7   **Score: 79**

Regional rank: 7   (out of 16 countries)
Income level rank: 7   (out of 16 countries)

The relative position of Canada at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	4	4
2 Ecosystem	68	14	14
3 Gender-based rights and participation	73	6	6
4 Governance	91	6	6
5 Gender-based education and assets	98	7	7
6 Country-reported activities	4	12	12
Additional Country Level Data			

GDP per capita PPP (USD)	**$52,219**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	79%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

China

Asia
High/Upper Middle Income

Rank: 34   **Score: 55**

Regional rank: 6   (out of 13 countries)
Income level rank: 12   (out of 18 countries)

The relative position of China at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 18 countries)
1 Livelihood	73	4	15
2 Ecosystem	78	6	6
3 Gender-based rights and participation	51	7	12
4 Governance	38	8	16
5 Gender-based education and assets	65	8	13
6 Country-reported activities	22	8	8
Additional Country Level Data			

GDP per capita PPP (USD)	**$6,188**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
GEF projects	39%	Legal quotas for women in policy position	Partial
Female headed households (rural)	n/a	Female mobile phone subscribers	41%

Congo, Dem.Rep.

Africa
Low Income

Rank: 72   **Score: 27**

Regional rank: 20   (out of 20 countries)
Income level rank: 16   (out of 18 countries)

The relative position of Congo, Dem. Rep. at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	18	18	16
2 Ecosystem	62	10	9
3 Gender-based rights and participation	48	15	12
4 Governance	6	20	18
5 Gender-based education and assets	14	19	17
6 Country-reported activities	33	12	12
Additional Country Level Data			
GDP per capita PPP (USD)	**$272**	Women working in the informal sector	n/a
Women agriculture holders	9%	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	20%	Female mobile phone subscribers	26%

Congo, Rep.

Africa
Lower Middle Income

Rank: 65   **Score: 39**

Regional rank: 16   (out of 20 countries)
Income level rank: 19   (out of 20 countries)

The relative position of Congo, Rep. at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 20 countries)
1 Livelihood	40	7	19
2 Ecosystem	77	6	4
3 Gender-based rights and participation	57	7	10
4 Governance	21	18	16
5 Gender-based education/assets	32	16	18
6 Country-reported activities	15	19	15
Additional Country Level Data			
GDP per capita PPP (USD)	**$3,154**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	89%
Female graduates in Science	n/a	Female Internet users	n/a
GEF Projects	25%	Legal quotas for women in policy	No
Female headed households (rural)	23%	Female mobile phone subscribers	26%

Costa Rica

Latin America & Caribbean
High/Upper Middle Income

Rank: 19   **Score: 69**
Regional rank: 2   (out of 7 countries)
Income level rank: 13   (out of 18 countries)

The relative position of Costa Rica at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	76	3	13
2 Ecosystem	86	2	3
3 Gender-based rights and participation	63	5	7
4 Governance	76	1	1
5 Gender-based education and assets	81	4	5
6 Country-reported activities	16	7	14

Additional Country Level Data			
GDP per capita PPP (USD)	$9,396	Women working in the informal sector	46%
Women agriculture holders	n/a	Women engaged in vulnerable employment	19%
Female graduates in Science	43%	Female Internet users	31%
Global Environment Facility (GEF) projects	45%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	58%

Denmark

OECD

Rank: 9   **Score: 78**
Regional rank: 9   (out of 16 countries)
Income level rank: 9   (out of 16 countries)

The relative position of Denmark at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	10	10
2 Ecosystem	65	15	15
3 Gender-based rights and participation	68	10	10
4 Governance	89	7	7
5 Gender-based education and assets	100	1	1
6 Country-reported activities	14	4	4

Additional Country Level Data			
GDP per capita PPP (USD)	$56,210	Women working in the informal sector	n/a
Women agriculture holders	9%	Women engaged in vulnerable employment	4%
Female graduates in Science	58%	Female Internet users	92%
GEF Projects	n/a	Legal quotas for women in policy	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Dominican Republic

Rank: 32   **Score: 57**

Latin America & Caribbean   Regional rank: 7   (out of 7 countries)
High/Upper Middle Income   Income level rank: 11   (out of 18 countries)

The relative position of Dominican Republic at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	67	4	17
2 Ecosystem	33	7	16
3 Gender-based rights and participation	65	4	6
4 Governance	59	4	6
5 Gender-based education and assets	63	7	14
6 Country-reported activities	34	2	4

Additional Country Level Data			
GDP per capita PPP (USD)	**$5,736**	Women working in the informal sector	52%
Women agriculture holders	10%	Women engaged in vulnerable employment	22%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	30%	Female mobile phone subscribers	58%

Egypt

Rank: 52   **Score: 47**

MENA   Regional rank: 4   (out of 8 countries)
Lower Middle Income   Income level rank: 14   (out of 20 countries)

The relative position of Egypt at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	86	3	1
2 Ecosystem	67	1	6
3 Gender-based rights/participation	10	7	20
4 Governance	38	4	11
5 Gender-based education/assets	59	4	10
6 Country-reported activities	17	7	14

Additional Country Level Data			
GDP per capita PPP (USD)	**$3,187**	Women working in the informal sector	n/a
Women agriculture holders	5%	Women engaged in vulnerable employment	49%
Female graduates in Science	n/a	Female Internet users	n/a
GEF projects	44%	Legal quotas for women in policy	Partial
Female headed households (rural)	12%	Female mobile phone subscribers	46%

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Ethiopia

Africa
Low Income

Rank: 66   **Score: 38**

Regional rank: 17   (out of 20 countries)
Income level rank: 16   (out of 18 countries)

The relative position of Ethiopia at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	29	14	12
2 Ecosystem	52	16	16
3 Gender-based rights and participation	46	17	14
4 Governance	25	17	16
5 Gender-based education and assets	46	10	11
6 Country-reported activities	37	10	9
Additional Country Level Data			
GDP per capita PPP (USD)	**$470**	Women working in the informal sector	n/a
Women agriculture holders	19%	Women engaged in vulnerable employment	93%
Female graduates in Science	13%	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	20%	Female mobile phone subscribers	46%

Fiji

Asia
High/Upper Middle Income

Rank: 40   **Score: 51**

Regional rank: 8   (out of 13 countries)
Income level rank: 13   (out of 18 countries)

The relative position of Fiji at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 18 countries)
1 Livelihood	76	3	11
2 Ecosystem	13	13	18
3 Gender-based rights and participation	56	5	10
4 Governance	40	6	15
5 Gender-based education and assets	70	6	10
6 Country-reported activities	12	13	15
Additional Country Level Data			
GDP per capita PPP (USD)	**$4,438**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	39%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	41%

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Finland

OECD

Rank: 6 **Score: 80**

Regional rank: 6   (out of 16 countries)
Income level rank: 6   (out of 16 countries)

The relative position of Finland at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	8	8
2 Ecosystem	75	11	11
3 Gender-based rights and participation	65	11	11
4 Governance	100	1	1
5 Gender-based education and assets	100	2	2
6 Country-reported activities	4	13	13
Additional Country Level Data			
GDP per capita PPP (USD)	**$46,179**	Women working in the informal sector	n/a
Women agriculture holders	11%	Women engaged in vulnerable employment	7%
Female graduates in Science	60%	Female Internet users	91%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

France

OECD

Rank: 5 **Score: 80**

Regional rank: 5   (out of 16 countries)
Income level rank: 5   (out of 16 countries)

The relative position of France at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	98	2	2
2 Ecosystem	88	3	3
3 Gender-based rights and participation	72	8	8
4 Governance	85	10	10
5 Gender-based education and assets	98	8	8
6 Country-reported activities	10	7	7
Additional Country Level Data			
GDP per capita PPP (USD)	**$39,772**	Women working in the informal sector	n/a
Women agriculture holders	23%	Women engaged in vulnerable employment	6%
Female graduates in Science	40%	Female Internet users	82%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Gabon

Africa
High/Upper Middle Income

Rank: 43   **Score: 50**

Regional rank: 4   (out of 20 countries)
Income level rank: 15   (out of 18 countries)

The relative position of Gabon at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	56	2	18
2 Ecosystem	63	9	9
3 Gender-based rights and participation	52	10	11
4 Governance	51	7	9
5 Gender-based education and assets	53	5	18
6 Country-reported activities	12	20	16

Additional Country Level Data			
GDP per capita PPP (USD)	**$11,430**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	64%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	33%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	25%	Female mobile phone subscribers	26%

Gambia

Africa
Low Income

Rank: 61   **Score: 42**

Regional rank: 12   (out of 20 countries)
Income level rank: 13   (out of 18 countries)

The relative position of Gambia at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	45	3	5
2 Ecosystem	54	15	14
3 Gender-based rights and participation	30	19	17
4 Governance	48	10	7
5 Gender-based education and assets	40	13	13
6 Country-reported activities	45	5	4

Additional Country Level Data			
GDP per capita PPP (USD)	**$512**	Women working in the informal sector	n/a
Women agriculture holders	8%	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
GEF projects	40%	Legal quotas for women in policy	No
Female headed households (rural)	n/a	Female mobile phone subscribers	26%

Georgia

Eurasia
Lower Middle Income

Rank: 27   **Score: 60**

Regional rank: 2   (out of 8 countries)
Income level rank: 3   (out of 20 countries)

The relative position of Georgia at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	76	5	7
2 Ecosystem	61	3	7
3 Gender-based rights and participation	69	3	3
4 Governance	39	5	9
5 Gender-based education and assets	81	3	2
6 Country-reported activities	6	5	18

Additional Country Level Data

GDP per capita PPP (USD)	**$3,508**	Women working in the informal sector	n/a
Women agriculture holders	29%	Women engaged in vulnerable employment	65%
Female graduates in Science	24%	Female Internet users	n/a
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	59%

Ghana

Africa
Lower Middle Income

Rank: 41   **Score: 51**

Regional rank: 3   (out of 20 countries)
Income level rank: 10   (out of 20 countries)

The relative position of Ghana at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 20 countries)
1 Livelihood	43	5	18
2 Ecosystem	50	18	16
3 Gender-based rights and participation	51	12	12
4 Governance	62	3	2
5 Gender-based education and assets	43	12	17
6 Country-reported activities	61	2	2

Additional Country Level Data

GDP per capita PPP (USD)	**$1,605**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	85%
Female graduates in Science	17%	Female Internet users	n/a
Global Environment Facility (GEF) projects	42%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	31%	Female mobile phone subscribers	26%

Greece

OECD

Rank: 15   **Score: 73**

Regional rank: 15 (out of 16 countries)
Income level rank: 15 (out of 16 countries)

The relative position of Greece at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	94	15	15
2 Ecosystem	98	2	2
3 Gender-based rights and participation	64	12	12
4 Governance	65	16	16
5 Gender-based education and assets	76	16	16
6 Country-reported activities	36	2	2
Additional Country Level Data			
GDP per capita PPP (USD)	**$22,083**	Women working in the informal sector	n/a
Women agriculture holders	25%	Women engaged in vulnerable employment	27%
Female graduates in Science	53%	Female Internet users	54%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Iceland

OECD

Rank: 1   **Score: 84**

Regional rank: 1 (out of 16 countries)
Income level rank: 1 (out of 16 countries)

The relative position of Iceland at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	5	5
2 Ecosystem	85	6	6
3 Gender-based rights and participation	73	5	5
4 Governance	87	8	8
5 Gender-based education and assets	100	3	3
6 Country-reported activities	36	1	1
Additional Country Level Data			
GDP per capita PPP (USD)	**$42,658**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	6%
Female graduates in Science	63%	Female Internet users	96%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

India

Asia
Lower Middle Income

Rank: 46   **Score: 49**

Regional rank: 9   (out of 13 countries)
Income level rank: 11   (out of 20 countries)

The relative position of India at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	49	10	14
2 Ecosystem	58	9	9
3 Gender-based rights and participation	33	11	14
4 Governance	50	2	3
5 Gender-based education and assets	47	12	15
6 Country-reported activities	70	1	1

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,489**	Women working in the informal sector	87%
Women agriculture holders	11%	Women engaged in vulnerable employment	85%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	62%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	15%	Female mobile phone subscribers	27%

Indonesia

Asia
Lower Middle Income

Rank: 33   **Score: 56**

Regional rank: 5   (out of 13 countries)
Income level rank: 6   (out of 20 countries)

The relative position of Indonesia at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	65	7	11
2 Ecosystem	81	5	3
3 Gender-based rights and participation	47	9	13
4 Governance	46	3	7
5 Gender-based education and assets	76	3	4
6 Country-reported activities	13	12	16

Additional Country Level Data			
GDP per capita PPP (USD)	**$3,557**	Women working in the informal sector	n/a
Women agriculture holders	9%	Women engaged in vulnerable employment	68%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	42%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	12%	Female mobile phone subscribers	41%

Italy

OECD

Rank: 16   **Score: 72**
Regional rank: 16   (out of 16 countries)
Income level rank: 16   (out of 16 countries)

The relative position of Italy at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	94	14	14
2 Ecosystem	84	7	7
3 Gender-based rights and participation	60	14	14
4 Governance	70	15	15
5 Gender-based education and assets	93	15	15
6 Country-reported activities	1	16	16
Additional Country Level Data			

GDP per capita PPP (USD)	**$33,049**	Women working in the informal sector	n/a
Women agriculture holders	32%	Women engaged in vulnerable employment	15%
Female graduates in Science	45%	Female Internet users	53%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Jamaica

Latin America & Caribbean
High/Upper Middle Income

Rank: 23   **Score: 66**

Regional rank: 5   (out of 7 countries)
Income level rank: 7   (out of 18 countries)

The relative position of Jamaica at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	80	5	8
2 Ecosystem	84	3	4
3 Gender-based rights and participation	58	7	9
4 Governance	57	5	7
5 Gender-based education and assets	76	5	8
6 Country-reported activities	34	3	5
Additional Country Level Data			

GDP per capita PPP (USD)	**$5,472**	Women working in the informal sector	n/a
Women agriculture holders	19%	Women engaged in vulnerable employment	31%
Female graduates in Science	n/a	Female Internet users	30%
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	58%

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Jordan

MENA
High/Upper Middle Income

Rank: **45**   Score: **49**

Regional rank: 2   (out of 8 countries)
Income level rank: 16   (out of 18 countries)

The relative position of Jordan at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	89	1	2
2 Ecosystem	55	2	11
3 Gender-based rights and participation	10	6	17
4 Governance	49	1	10
5 Gender-based education and assets	60	3	16
6 Country-reported activities	21	5	9

Additional Country Level Data			
GDP per capita PPP (USD)	**$4,945**	Women working in the informal sector	n/a
Women agriculture holders	3%	Women engaged in vulnerable employment	3%
Female graduates in Science	73%	Female Internet users	n/a
Global Environment Facility (GEF) projects	42%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	11%	Female mobile phone subscribers	46%

Kenya

Africa
Low Income

Rank: **50**   Score: **47**

Regional rank: 7   (out of 20 countries)
Income level rank: 6   (out of 18 countries)

The relative position of Kenya at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	32	12	10
2 Ecosystem	83	4	4
3 Gender-based rights and participation	46	16	13
4 Governance	38	12	9
5 Gender-based education and assets	47	9	10
6 Country-reported activities	64	1	1

Additional Country Level Data			
GDP per capita PPP (USD)	**$865**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	62%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	32%	Female mobile phone subscribers	26%

Kyrgyzstan

Eurasia
Low Income

Rank: 35   **Score: 54**

Regional rank: 5   (out of 8 countries)
Income level rank: 1   (out of 18 countries)

The relative position of Kyrgyzstan at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	70	7	1
2 Ecosystem	62	2	10
3 Gender-based rights and participation	73	1	1
4 Governance	28	6	14
5 Gender-based education and assets	58	8	4
6 Country-reported activities	17	1	16

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,160**	Women working in the informal sector	n/a
Women agriculture holders	12%	Women engaged in vulnerable employment	47%
Female graduates in Science	25%	Female Internet users	n/a
Global Environment Facility (GEF) projects	58%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	18%	Female mobile phone subscribers	59%

Lao, Rep. of

Asia
Lower Middle Income

Rank: 51   **Score: 47**

Regional rank: 11   (out of 13 countries)
Income level rank: 13   (out of 20 countries)

The relative position of Laos at the category level

Category	Overall score (Normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	43	13	16
2 Ecosystem	85	2	1
3 Gender-based rights and participation	63	2	5
4 Governance	21	13	17
5 Gender-based education and assets	56	10	12
6 Country-reported activities	21	9	11

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,399**	Women working in the informal sector	n/a
Women agriculture holders	9%	Women engaged in vulnerable employment	92%
Female graduates in Science	27%	Female Internet users	n/a
Global Environment Facility (GEF) projects	83%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	27%

Lebanon

MENA
High/Upper Middle Income

Rank: 42   **Score: 50**

Regional rank: 1   (out of 8 countries)
Income level rank: 14   (out of 18 countries)

The relative position of Lebanon at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	86	2	3
2 Ecosystem	51	4	12
3 Gender-based rights and participation	28	1	15
4 Governance	37	5	17
5 Gender-based education and assets	55	7	17
6 Country-reported activities	36	2	3

Additional Country Level Data			
GDP per capita PPP (USD)	**$9,705**	Women working in the informal sector	n/a
Women agriculture holders	7%	Women engaged in vulnerable employment	16%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	63%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

Liberia

Africa
High/Upper Middle Income

Rank: 54   **Score: 47**

Regional rank: 8   (out of 20 countries)
Income level rank: 8   (out of 18 countries)

The relative position of Liberia at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	22	17	15
2 Ecosystem	43	20	18
3 Gender-based rights and participation	51	13	10
4 Governance	53	4	2
5 Gender-based education and assets	65	3	2
6 Country-reported activities	45	6	5

Additional Country Level Data			
GDP per capita PPP (USD)	**$422**	Women working in the informal sector	73%
Women agriculture holders	n/a	Women engaged in vulnerable employment	89%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	33%	Legal quotas for women in policy-making positions	no
Female headed households (rural)	27%	Female mobile phone subscribers	26%

Madagascar

Africa
Low Income

Rank: 58 **Score: 44**
Regional rank: 11 (out of 20 countries)
Income level rank: 11 (out of 18 countries)

The relative position of Madagascar at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 **Livelihood**	16	20	18
2 **Ecosystem**	45	19	17
3 **Gender-based rights and participation**	69	3	3
4 **Governance**	32	16	12
5 **Gender-based education and assets**	67	1	1
6 **Country-reported activities**	29	13	13
Additional Country Level Data			
GDP per capita PPP (USD)	**$447**	Women working in the informal sector	81%
Women agriculture holders	15%	Women engaged in vulnerable employment	89%
Female graduates in Science	41%	Female Internet users	n/a
Global Environment Facility (GEF) projects	57%	Legal quotas for women in policy-making positions	no
Female headed households (rural)	21%	Female mobile phone subscribers	26%

Malawi

Africa
Low Income

Rank: 36 **Score: 54**
Regional rank: 2 (out of 20 countries)
Income level rank: 2 (out of 18 countries)

The relative position of Malawi at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 **Livelihood**	41	6	6
2 **Ecosystem**	83	5	5
3 **Gender-based rights and participation**	56	8	7
4 **Governance**	52	5	3
5 **Gender-based education and assets**	47	7	8
6 **Country-reported activities**	60	3	2
Additional Country Level Data			
GDP per capita PPP (USD)	**$268**	Women working in the informal sector	n/a
Women agriculture holders	32%	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	67%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	26%	Female mobile phone subscribers	26%

The Environment and Gender Index (EGI) 2013 Pilot

Mali

Africa
Low Income

Rank: 64 **Score: 40**

Regional rank: 15 (out of 20 countries)
Income level rank: 15 (out of 18 countries)

The relative position of Mali at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	27	15	13
2 Ecosystem	57	13	12
3 Gender-based rights and participation	42	18	16
4 Governance	47	11	8
5 Gender-based education and assets	47	8	9
6 Country-reported activities	17	18	17

Additional Country Level Data			
GDP per capita PPP (USD)	**$694**	Women working in the informal sector	89%
Women agriculture holders	3%	Women engaged in vulnerable employment	89%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	12%	Female mobile phone subscribers	26%

Mauritania

Africa
Lower Middle Income

Rank: 70 **Score: 37**

Regional rank: 19 (out of 20 countries)
Income level rank: 19 (out of 20 countries)

The relative position of Mauritania at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 20 countries)
1 Livelihood	38	9	20
2 Ecosystem	52	17	15
3 Gender-based rights and participation	20	20	17
4 Governance	33	14	13
5 Gender-based education and assets	55	4	14
6 Country-reported activities	27	14	7

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,106**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	60%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	32%	Female mobile phone subscribers	26%

The Environment and Gender Index (EGI) 2013 Pilot

Mexico

Latin America & Caribbean
High/Upper Middle Income

Rank: 21 **Score: 67**

Regional rank: 4 (out of 7 countries)
Income level rank: 5 (out of 18 countries)

The relative position of Mexico at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 **Livelihood**	76	6	12
2 **Ecosystem**	46	6	14
3 **Gender-based rights and participation**	69	3	4
4 **Governance**	52	6	8
5 **Gender-based education and assets**	85	3	4
6 **Country-reported activities**	61	1	1

Additional Country Level Data			
GDP per capita PPP (USD)	**$9,747**	Women working in the informal sector	58%
Women agriculture holders	n/a	Women engaged in vulnerable employment	32%
Female graduates in Science	36%	Female Internet users	36%
Global Environment Facility (GEF) projects		Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	58%

Moldova

Eurasia
Lower Middle Income

Rank: 31 **Score: 58**

Regional rank: 4 (out of 8 countries)
Income level rank: 5 (out of 20 countries)

The relative position of Moldova at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 **Livelihood**	79	3	4
2 **Ecosystem**	54	5	13
3 **Gender-based rights and participation**	63	5	4
4 **Governance**	46	4	6
5 **Gender-based education and assets**	69	4	6
6 **Country-reported activities**	7	4	17

Additional Country Level Data			
GDP per capita PPP (USD)	**$2,038**	Women working in the informal sector	11%
Women agriculture holders	n/a	Women engaged in vulnerable employment	25%
Female graduates in Science	40%	Female Internet users	n/a
Global Environment Facility (GEF) projects	75%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	31%	Female mobile phone subscribers	59%

Mongolia

Asia
Lower Middle Income

Rank: 25   **Score: 66**

Regional rank: 1   (out of 13 countries)
Income level rank: 1   (out of 20 countries)

The relative position of Mongolia at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	56	8	12
2 Ecosystem	85	3	2
3 Gender-based rights and participation	63	3	6
4 Governance	65	1	1
5 Gender-based education and assets	88	1	1
6 Country-reported activities	26	6	8
Additional Country Level Data			

GDP per capita PPP (USD)	**$3,673**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	54%
Female graduates in Science	62%	Female Internet users	n/a
Global Environment Facility (GEF) projects	67%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	59%

Morocco

MENA
Lower Middle Income

Rank: 49   **Score: 47**

Regional rank: 3   (out of 8 countries)
Income level rank: 12   (out of 20 countries)

The relative position of Morocco at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	76	7	6
2 Ecosystem	31	6	19
3 Gender-based rights and participation	22	2	16
4 Governance	48	2	5
5 Gender-based education and assets	58	5	11
6 Country-reported activities	36	3	4
Additional Country Level Data			

GDP per capita PPP (USD)	**$2,902**	Women working in the informal sector	n/a
Women agriculture holders	4%	Women engaged in vulnerable employment	65%
Female graduates in Science	28%	Female Internet users	40%
Global Environment Facility (GEF) projects	42%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	12%	Female mobile phone subscribers	46%

Mozambique

Africa
Low Income

Rank: 55   **Score: 45**

Regional rank: 9   (out of 20 countries)
Income level rank: 9   (out of 18 countries)

The relative position of Mozambique at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	18	19	17
2 Ecosystem	64	8	8
3 Gender-based rights and participation	71	2	2
4 Governance	50	8	5
5 Gender-based education and assets	44	11	12
6 Country-reported activities	25	15	14

Additional Country Level Data			
GDP per capita PPP (USD)	**$579**	Women working in the informal sector	n/a
Women agriculture holders	23%	Women engaged in vulnerable employment	96%
Female graduates in Science	37%	Female Internet users	n/a
Global Environment Facility (GEF) projects	75%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	26%	Female mobile phone subscribers	26%

Nepal

Asia
Low Income

Rank: 53   **Score: 47**

Regional rank: 10   (out of 13 countries)
Income level rank: 7   (out of 18 countries)

The relative position of Nepal at the category level

Category	Overall score (Normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 18 countries)
1 Livelihood	47	11	3
2 Ecosystem	81	4	6
3 Gender-based rights and participation	45	10	15
4 Governance	29	11	13
5 Gender-based education and assets	57	9	5
6 Country-reported activities	33	4	11

Additional Country Level Data			
GDP per capita PPP (USD)	**$707**	Women working in the informal sector	n/a
Women agriculture holders	8%	Women engaged in vulnerable employment	84%
Female graduates in Science	n/a	Female Internet users	n/a
GEF projects	50%	Legal quotas for women in policy	Yes
Female headed households (rural)	24%	Female mobile phone subscribers	27%

Netherlands

OECD

Rank: 2   **Score: 83**

Regional rank: 2   (out of 16 countries)
Income level rank: 2   (out of 16 countries)

The relative position of Netherlands at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	7	7
2 Ecosystem	86	5	5
3 Gender-based rights and participation	78	3	3
4 Governance	92	5	5
5 Gender-based education and assets	99	6	6
6 Country-reported activities	13	6	6

Additional Country Level Data			
GDP per capita PPP (USD)	**$46,054**	Women working in the informal sector	n/a
Women agriculture holders	8%	Women engaged in vulnerable employment	10%
Female graduates in Science	61%	Female Internet users	92%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Norway

OECD

Rank: 3   **Score: 81**

Regional rank: 3   (out of 16 countries)
Income level rank: 3   (out of 16 countries)

The relative position of Norway at the category level

Category	Overall score (Normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	97	6	6
2 Ecosystem	87	4	4
3 Gender-based rights and participation	69	9	9
4 Governance	93	3	3
5 Gender-based education and assets	99	4	4
6 Country-reported activities	10	8	8

Additional Country Level Data			
GDP per capita PPP (USD)	**$99,558**	Women working in the informal sector	n/a
Women agriculture holders	13%	Women engaged in vulnerable employment	3%
Female graduates in Science	n/a	Female Internet users	94%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Pakistan

Asia
Lower Middle Income

Rank: 67   **Score: 38**
Regional rank: 13 (out of 13 countries)
Income level rank: 17 (out of 20 countries)

The relative position of Pakistan at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	53	9	13
2 Ecosystem	40	12	17
3 Gender-based rights and participation	30	12	15
4 Governance	24	12	15
5 Gender-based education and assets	46	13	16
6 Country-reported activities	31	5	6

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,290**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	78%
Female graduates in Science	50%	Female Internet users	n/a
Global Environment Facility (GEF) projects	64%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	11%	Female mobile phone subscribers	27%

Panama

Latin America & Caribbean
High/Upper Middle Income

Rank: 17   **Score: 70**
Regional rank: 1 (out of 7 countries)
Income level rank: 1 (out of 18 countries)

The relative position of Panama at the category level

Category	Overall score (normalized values)	Regional rank (out of 7 countries)	Income level rank (out of 18 countries)
1 Livelihood	71	7	16
2 Ecosystem	88	1	2
3 Gender-based rights and participation	69	2	3
4 Governance	71	2	3
5 Gender-based education and assets	86	2	3
6 Country-reported activities	18	5	10

Additional Country Level Data			
GDP per capita PPP (USD)	**$9,534**	Women working in the informal sector	47%
Women agriculture holders	29%	Women engaged in vulnerable employment	24%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	25%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	n/a	Female mobile phone subscribers	58%

Philippines

Asia
Lower Middle Income

Rank: 26   **Score: 60**

Regional rank: 2   (out of 13 countries)
Income level rank: 2   (out of 20 countries)

The relative position of Philippines at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	65	6	10
2 Ecosystem	67	7	5
3 Gender-based rights and participation	79	1	1
4 Governance	42	4	8
5 Gender-based education and assets	71	5	5
6 Country-reported activities	19	10	13
Additional Country Level Data			
GDP per capita PPP (USD)	**$2,587**	Women working in the informal sector	70%
Women agriculture holders	11%	Women engaged in vulnerable employment	46%
Female graduates in Science	56%	Female Internet users	n/a
Global Environment Facility (GEF) projects	42%	Legal quotas for women in policy-making positions	Partial
Female headed households (rural)	14%	Female mobile phone subscribers	41%

Poland

OECD

Rank: 12   **Score: 77**

Regional rank: 12   (out of 16 countries)
Income level rank: 12   (out of 16 countries)

The relative position of Poland at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	93	16	16
2 Ecosystem	100	1	1
3 Gender-based rights and participation	72	7	7
4 Governance	75	13	13
5 Gender-based education and assets	94	14	14
6 Country-reported activities	8	9	9
Additional Country Level Data			
GDP per capita PPP (USD)	**$12,708**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	17%
Female graduates in Science	58%	Female Internet users	64%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	59%

Portugal

OECD

Rank: 13   **Score: 75**

Regional rank: 13   (out of 16 countries)
Income level rank: 13   (out of 16 countries)

The relative position of Portugal at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	95	12	12
2 Ecosystem	53	16	16
3 Gender-based rights and participation	75	4	4
4 Governance	82	11	11
5 Gender-based education and assets	95	13	13
6 Country-reported activities	6	11	11
Additional Country Level Data			
GDP per capita PPP (USD)	**$20,182**	Women working in the informal sector	n/a
Women agriculture holders	23%	Women engaged in vulnerable employment	14%
Female graduates in Science	n/a	Female Internet users	60%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Romania

Eurasia
High/Upper Middle Income

Rank: 22   **Score: 66**

Regional rank: 1   (out of 8 countries)
Income level rank: 6   (out of 18 countries)

The relative position of Romania at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	78	4	10
2 Ecosystem	70	1	7
3 Gender-based rights and participation	66	4	5
4 Governance	61	1	5
5 Gender-based education and assets	89	1	1
6 Country-reported activities	5	6	18
Additional Country Level Data			
GDP per capita PPP (USD)	**$7,943**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	32%
Female graduates in Science	36%	Female Internet users	48%
Global Environment Facility (GEF) projects	0%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	59%

Saudi Arabia

MENA
High/Upper Middle Income

Rank: 56   **Score: 45**

Regional rank: 5   (out of 8 countries)
Income level rank: 17   (out of 18 countries)

The relative position of Saudi Arabia at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	83	5	5
2 Ecosystem	50	5	13
3 Gender-based rights and participation	9	8	18
4 Governance	43	3	13
5 Gender-based education and assets	62	2	15
6 Country-reported activities	8	8	17

Additional Country Level Data			
GDP per capita PPP (USD)	**$25,136**	Women working in the informal sector	n/a
Women agriculture holders	10%	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

South Africa

Africa
High/Upper Middle Income

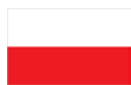**Rank: 18**   **Score: 70**

Regional rank: 1   (out of 20 countries)
Income level rank: 2   (out of 18 countries)

The relative position of South Africa at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	75	1	14
2 Ecosystem	59	12	10
3 Gender-based rights and participation	81	1	1
4 Governance	71	1	2
5 Gender-based education and assets	65	2	11
6 Country-reported activities	54	4	2

Additional Country Level Data			
GDP per capita PPP (USD)	**$7,508**	Women working in the informal sector	37%
Women agriculture holders	n/a	Women engaged in vulnerable employment	11%
Female graduates in Science	47%	Female Internet users	n/a
GEF projects	54%	Legal quotas for women in policy-making	Partial
Female headed households (rural)	50%	Female mobile phone subscribers	26%

Spain

OECD

Rank: 8   **Score: 79**

Regional rank: 8   (out of 16 countries)
Income level rank: 8   (out of 16 countries)

The relative position of Spain at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	94	13	13
2 Ecosystem	83	8	8
3 Gender-based rights and participation	83	1	1
4 Governance	74	14	14
5 Gender-based education and assets	98	9	9
6 Country-reported activities	8	10	10
Additional Country Level Data			
GDP per capita PPP (USD)	**$29,195**	Women working in the informal sector	n/a
Women agriculture holders	29%	Women engaged in vulnerable employment	9%
Female graduates in Science	54%	Female Internet users	70%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Sri Lanka

Asia
Lower Middle Income

Rank: 38   **Score: 53**

Regional rank: 7   (out of 13 countries)
Income level rank: 8   (out of 20 countries)

The relative position of Sri Lanka at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	67	5	9
2 Ecosystem	55	11	12
3 Gender-based rights and participation	51	6	11
4 Governance	38	7	10
5 Gender-based education and assets	68	7	8
6 Country-reported activities	24	7	9
Additional Country Level Data			
GDP per capita PPP (USD)	**$2,923**	Women working in the informal sector	56%
Women agriculture holders	n/a	Women engaged in vulnerable employment	45%
Female graduates in Science	68%	Female Internet users	n/a
Global Environment Facility (GEF) projects	13%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	27%

Sweden

OECD

Rank: 4 **Score: 81**

Regional rank: 4 (out of 16 countries)
Income level rank: 4 (out of 16 countries)

The relative position of Sweden at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	96	11	11
2 Ecosystem	73	12	12
3 Gender-based rights and participation	79	2	2
4 Governance	93	4	4
5 Gender-based education and assets	99	5	5
6 Country-reported activities	3	14	14
Additional Country Level Data			
GDP per capita PPP (USD)	**$55,245**	Women working in the informal sector	n/a
Women agriculture holders	10%	Women engaged in vulnerable employment	4%
Female graduates in Science	45%	Female Internet users	92%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Switzerland

OECD

Rank: 11 **Score: 77**

Regional rank: 11 (out of 16 countries)
Income level rank: 11 (out of 16 countries)

The relative position of Switzerland at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	98	3	3
2 Ecosystem	80	10	10
3 Gender-based rights and participation	54	16	16
4 Governance	97	2	2
5 Gender-based education and assets	98	10	10
6 Country-reported activities	3	15	15
Additional Country Level Data			
GDP per capita PPP (USD)	**$79,052**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	10%
Female graduates in Science	n/a	Female Internet users	79%
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Syria

MENA
Lower Middle Income

Rank: 69   **Score: 37**

Regional rank: 7   (out of 8 countries)
Income level rank: 18   (out of 20 countries)

The relative position of Syria at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	86	4	2
2 Ecosystem	4	8	20
3 Gender-based rights and participation	17	4	18
4 Governance	16	8	20
5 Gender-based education and assets	56	6	13
6 Country-reported activities	21	6	12
Additional Country Level Data			
GDP per capita PPP (USD)	**$3,289**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	16%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	0%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

Tajikistan

Eurasia
Low Income

Rank: 48   **Score: 48**

Regional rank: 8   (out of 8 countries)
Income level rank: 5   (out of 18 countries)

The relative position of Tajikistan at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1 Livelihood	56	8	2
2 Ecosystem	54	6	15
3 Gender-based rights and participation	61	7	5
4 Governance	26	7	15
5 Gender-based education and assets	62	6	3
6 Country-reported activities	12	3	18
Additional Country Level Data			
GDP per capita PPP (USD)	**$872**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	41%	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	41%

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Tanzania

Africa
Low Income

Rank: 44   **Score: 50**

Regional rank: 5   (out of 20 countries)
Income level rank: 3   (out of 18 countries)

The relative position of Tanzania at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1 Livelihood	32	11	9
2 Ecosystem	87	3	3
3 Gender-based rights and participation	51	11	9
4 Governance	48	9	6
5 Gender-based education and assets	52	6	7
6 Country-reported activities	41	9	8
Additional Country Level Data			
GDP per capita PPP (USD)	**$609**	Women working in the informal sector	83%
Women agriculture holders	20%	Women engaged in vulnerable employment	93%
Female graduates in Science	48%	Female Internet users	n/a
Global Environment Facility (GEF) projects	50%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	25%	Female mobile phone subscribers	41%

Thailand

Asia
High/Upper Middle Income

Rank: 29   **Score: 59**

Regional rank: 4   (out of 13 countries)
Income level rank: 9   (out of 18 countries)

The relative position of Thailand at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 18 countries)
1 Livelihood	80	1	7
2 Ecosystem	89	1	1
3 Gender-based rights and participation	51	8	13
4 Governance	41	5	14
5 Gender-based education and assets	72	4	9
6 Country-reported activities	16	11	13
Additional Country Level Data			
GDP per capita PPP (USD)	**$5,480**	Women working in the informal sector	n/a
Women agriculture holders	27%	Women engaged in vulnerable employment	56%
Female graduates in Science	n/a	Female Internet users	24%
Global Environment Facility (GEF) projects	21%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

Turkey

Eurasia
High/Upper Middle Income

Rank: 30　　　　**Score: 58**

Regional rank: 3　(out of 8 countries)
Income level rank: 10　(out of 18 countries)

The relative position of Turkey at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 18 countries)
1　Livelihood	86	1	4
2　Ecosystem	41	7	15
3　Gender-based rights and participation	48	8	14
4　Governance	49	2	11
5　Gender-based education and assets	81	2	6
6　Country-reported activities	17	2	12
Additional Country Level Data			
GDP per capita PPP (USD)	**$10,666**	Women working in the informal sector	33%
Women agriculture holders	n/a	Women engaged in vulnerable employment	47%
Female graduates in Science	n/a	Female Internet users	34%
Global Environment Facility (GEF) projects	40%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	9%	Female mobile phone subscribers	26%

Uganda

Africa
Low Income

Rank: 62　　　　**Score: 41**

Regional rank: 13　(out of 20 countries)
Income level rank: 14　(out of 18 countries)

The relative position of Uganda at the category level

Category	Overall score (normalized values)	Regional rank (out of 20 countries)	Income level rank (out of 18 countries)
1　Livelihood	40	8	7
2　Ecosystem	61	11	11
3　Gender-based rights and participation	51	14	11
4　Governance	36	13	11
5　Gender-based education and assets	24	18	16
6　Country-reported activities	45	7	6
Additional Country Level Data			
GDP per capita PPP (USD)	**$547**	Women working in the informal sector	71%
Women agriculture holders	16%	Women engaged in vulnerable employment	92%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	33%	Legal quotas for women in policy-making positions	Yes
Female headed households (rural)	29%	Female mobile phone subscribers	26%

United States of America

OCD

Rank: 14 **Score: 73**

Regional rank: 14   (out of 16 countries)
Income level rank: 14   (out of 16 countries)

The relative position of United States of America at the category level

Category	Overall score (normalized values)	Regional rank (out of 16 countries)	Income level rank (out of 16 countries)
1 Livelihood	98	1	1
2 Ecosystem	70	13	13
3 Gender-based rights and participation	55	15	15
4 Governance	77	12	12
5 Gender-based education and assets	96	12	12
6 Country-reported activities	13	5	5
Additional Country Level Data			

GDP per capita PPP (USD)	**$49,965**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	16%	Female Internet users	n/a
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	No
Female headed households (rural)	n/a	Female mobile phone subscribers	78%

Uzbekistan

Eurasia
Lower Middle Income

Rank: 39 **Score: 51**

Regional rank: 7   (out of 8 countries)
Income level rank: 9   (out of 20 countries)

The relative position of Uzbekistan at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	72	6	8
2 Ecosystem	56	4	10
3 Gender-based rights and participation	70	2	2
4 Governance	17	8	19
5 Gender-based education/assets	69	5	7
6 Country-reported activities	1	8	20
Additional Country Level Data			

GDP per capita PPP (USD)	**$1,717**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	41%	Female Internet users	n/a
GEF projects	57%	Legal quotas for women in policy-making	Yes
Female headed households (rural)	12%	Female mobile phone subscribers	59%

Viet Nam

Asia
Lower Middle Income

Rank: **28**   Score: **59**

Regional rank: 3   (out of 13 countries)
Income level rank: 4   (out of 20 countries)

The relative position of Viet Nam at the category level

Category	Overall score (normalized values)	Regional rank (out of 13 countries)	Income level rank (out of 20 countries)
1 Livelihood	78	2	5
2 Ecosystem	60	8	8
3 Gender-based rights and participation	58	4	9
4 Governance	36	10	12
5 Gender-based education and assets	78	2	3
6 Country-reported activities	35	3	5

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,596**	Women working in the informal sector	67%
Women agriculture holders	9%	Women engaged in vulnerable employment	79%
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	53%	Legal quotas for women in policy-making positions	No
Female headed households (rural)	22%	Female mobile phone subscribers	41%

Yemen

MENA
Lower Middle Income

Rank: **71**   Score: **31**

Regional rank: 8   (out of 8 countries)
Income level rank: 20   (out of 20 countries)

The relative position of Yemen at the category level

Category	Overall score (normalized values)	Regional rank (out of 8 countries)	Income level rank (out of 20 countries)
1 Livelihood	45	8	15
2 Ecosystem	52	3	14
3 Gender-based rights and participation	13	5	19
4 Governance	17	6	18
5 Gender-based education and assets	31	8	19
6 Country-reported activities	49	1	3

Additional Country Level Data			
GDP per capita PPP (USD)	**$1,494**	Women working in the informal sector	n/a
Women agriculture holders	n/a	Women engaged in vulnerable employment	n/a
Female graduates in Science	n/a	Female Internet users	n/a
Global Environment Facility (GEF) projects	n/a	Legal quotas for women in policy-making positions	n/a
Female headed households (rural)	n/a	Female mobile phone subscribers	46%

Appendix B: Country Scores by Category

Country Scores for Categories 1 & 2 (normalized values)

Country	Category 1: Livelihood						Category 2: Ecosystem		
	Less poverty	Food Adequacy	Fewer women with anemia	Less Solid Fuel Use	Improved Water	Improved Sanitation	Biodiversity Preservation	Critical Habitat Preservation	Higher Quality Forests
Algeria	73	89	48	100	70	94	37	n/a	18
Argentina	65	91	87	100	98	95	29	62	100
Armenia	56	78	77	81	98	89	47	3	41
Australia	92	100	87	100	100	100	61	100	n/a
Bangladesh	62	68	29	7	69	49	11	n/a	100
Benin	60	75	2	7	56	2	99	n/a	n/a
Brazil	79	81	77	94	94	78	83	61	100
Burkina Faso	38	59	15	6	63	7	84	n/a	96
Burundi	6	0	48	2	52	43	30	99	n/a
Cameroon	49	62	29	23	52	41	54	10	100
Canada	97	100	88	100	100	100	45	59	100
China	92	73	73	53	85	60	64	68	100
Congo, DRC	0	31	48	5	0	22	59	27	100
Congo, Rep.	38	45	79	21	48	7	55	n/a	98
Costa Rica	73	86	15	94	93	93	94	64	100
Denmark	92	100	87	100	100	100	30	n/a	100
Dominican Republic	49	61	54	93	67	80	0	0	100
Egypt	78	100	48	100	98	94	35	n/a	100
Ethiopia	65	31	65	0	6	10	85	32	39
Fiji	63	91	56	62	100	85	8	19	n/a
Finland	92	100	88	100	100	100	49	n/a	100
France	100	100	85	100	100	100	77	n/a	100
Gabon	60	84	17	73	78	24	89	0	100
Gambia	37	68	15	7	80	64	9	n/a	100
Georgia	98	53	62	53	96	92	21	n/a	100
Ghana	67	80	19	14	74	1	78	n/a	22
Greece	81	100	83	100	100	99	96	n/a	100
Iceland	97	100	88	100	100	100	85	n/a	n/a
India	65	60	17	41	85	26	30	43	100
Indonesia	94	70	58	44	70	53	81	62	100
Italy	81	100	85	100	100	100	89	100	64
Jamaica	84	82	58	89	87	77	100	67	84
Jordan	92	90	60	100	93	98	9	n/a	100
Kenya	40	42	44	18	28	19	67	83	100
Kyrgyzstan	59	77	48	65	80	92	23	n/a	100
Lao	68	45	42	2	44	57	94	n/a	76
Lebanon	67	91	63	100	100	98	3	n/a	100
Liberia	11	49	13	0	52	7	10	17	100

Country	Category 1: Livelihood						Category 2: Ecosystem		
	Less poverty	Food Adequacy	Fewer women with anemia	Less Solid Fuel Use	Improved Water	Improved Sanitation	Biodiversity Preservation	Critical Habitat Preservation	Higher Quality Forests
Madagascar	3	48	40	0	4	2	18	37	79
Malawi	32	57	42	1	70	47	95	97	58
Mali	43	73	0	0	35	11	14	n/a	100
Mauritania	46	82	37	41	7	17	3	n/a	100
Mexico	32	91	77	86	89	83	63	29	n/a
Moldova	78	63	67	89	93	84	8	n/a	100
Mongolia	65	47	79	27	72	47	69	n/a	100
Morocco	89	88	48	98	69	66	9	0	83
Mozambique	30	37	25	3	2	8	91	0	100
Nepal	73	62	29	16	78	26	62	n/a	100
Netherlands	95	100	87	100	100	100	72	n/a	100
Norway	97	100	88	100	100	100	74	n/a	100
Pakistan	78	61	21	35	83	40	59	n/a	21
Panama	71	64	54	82	89	67	91	100	73
Philippines	70	66	52	49	85	70	64	38	100
Poland	95	100	73	100	100	88	100	n/a	100
Portugal	84	100	85	100	100	100	49	94	17
Romania	78	100	71	83	70	68	40	n/a	100
Saudi Arabia	78	93	31	100	94	100	100	n/a	0
South Africa	63	90	58	85	83	70	38	40	100
Spain	79	100	87	100	100	100	50	100	100
Sri Lanka	98	54	52	23	87	90	85	33	45
Sweden	94	93	88	100	100	100	46	n/a	100
Switzerland	100	100	85	100	100	100	98	n/a	61
Syria	95	92	52	100	81	94	4	n/a	n/a
Tajikistan	49	41	52	65	37	94	24	n/a	84
Tanzania	60	42	75	4	13	0	100	79	82
Thailand	92	73	56	73	93	92	78	n/a	100
Turkey	84	100	46	97	100	90	11	11	100
Uganda	73	52	31	2	54	26	66	98	19
USA	89	100	100	100	98	100	49	61	100
Uzbekistan	86	74	10	89	76	100	13	n/a	100
Viet Nam	95	65	98	43	93	72	37	45	100
Yemen	57	47	38	66	17	47	3	n/a	100

Country Scores for Categories 3 & 4 (normalized values)

Country	Category 3:Gender-based Rights and Participation					Category 4:Governance		
	Equal legal rights	CEDAW Ratification	Women in Policy-Making Positions	Women in COP Delegations	Female Managers	Civil Liberties	Political Stability	Property Rights
Algeria	10	25	9	42	5	25	24	2
Argentina	100	75	70	94	37	83	55	5
Armenia	100	100	10	53	47	42	56	46
Australia	60	50	49	83	61	100	84	76
Bangladesh	18	50	24	12	14	58	22	29
Benin	64	100	12	59	40	83	71	37
Brazil	100	75	12	53	60	83	58	56
Burkina Faso	100	100	21	38	40	50	58	46
Burundi	60	100	56	52	40	33	11	0
Cameroon	90	100	18	47	40	17	46	34
Canada	100	100	43	66	60	100	86	88
China	100	50	28	52	26	8	45	61
Congo, DRC	91	75	11	24	40	17	0	2
Congo, Rep.	90	100	13	39	40	25	37	2
Costa Rica	60	100	67	40	49	100	77	51
Denmark	60	100	76	72	39	100	90	76
Dominican Republic	100	100	26	53	51	83	57	37
Egypt	0	25	4	6	16	33	41	39
Ethiopia	100	50	38	19	25	17	17	41
Fiji	64	75	13	32	86	33	63	27
Finland	70	50	82	78	49	100	100	100
France	100	100	27	67	65	100	74	80
Gabon	60	100	22	32	40	25	67	61
Gambia	n/a	75	11	25	40	17	65	61
Georgia	100	100	9	87	56	67	34	17
Ghana	55	100	12	38	53	92	58	37
Greece	70	100	24	83	46	83	69	44
Iceland	70	100	77	43	54	100	96	66
India	64	50	13	21	19	75	27	49
Indonesia	50	75	23	51	35	75	22	41
Italy	100	50	26	74	54	92	73	46
Jamaica	70	50	22	58	100	75	52	44
Jordan	0	25	12	3	11	25	50	71
Kenya	64	75	11	39	40	50	34	29
Kyrgyzstan	100	100	29	69	58	33	50	0
Lao	100	75	39	44	56	8	25	29
Lebanon	0	25	5	99	11	42	22	46
Liberia	64	100	18	33	40	58	53	49
Madagascar	100	100	16	97	35	33	58	5
Malawi	56	100	28	47	40	58	61	37
Mali	40	100	15	17	40	17	94	29
Mauritania	0	25	26	9	40	25	50	24
Mexico	90	100	38	75	51	67	46	44

Country	Equal legal rights	CEDAW Ratification	Women in Policy-Making Positions	Women in COP Delegations	Female Managers	Civil Liberties	Political Stability	Property Rights
Moldova	100	100	29	24	63	67	50	22
Mongolia	80	100	6	61	79	92	79	24
Morocco	0	25	10	57	19	42	47	54
Mozambique	100	100	71	50	40	58	65	27
Nepal	20	100	46	38	21	50	11	27
Netherlands	100	100	73	81	44	100	87	88
Norway	70	100	76	53	51	100	94	85
Pakistan	18	50	33	48	2	42	3	27
	Category 3:Gender-based Rights and Participation					Category 4:Governance		
Country	Equal legal rights	CEDAW Ratification	Women in Policy-Making Positions	Women in COP Delegations	Female Managers	Civil Liberties	Political Stability	Property Rights
Panama	60	100	16	100	81	92	59	61
Philippines	91	100	29	90	93	67	20	41
Poland	100	100	28	66	60	100	76	49
Portugal	100	100	41	87	51	100	86	59
Romania	100	100	13	70	47	83	63	37
Saudi Arabia	9	25	0	1	9	0	51	78
South Africa	100	100	76	76	49	83	57	73
Spain	100	100	60	100	53	100	62	59
Sri Lanka	55	100	7	53	39	42	27	46
Sweden	60	100	100	83	53	100	93	85
Switzerland	80	50	44	46	49	100	94	98
Syria	9	25	17	20	14	0	47	2
Tajikistan	100	100	27	29	47	17	28	34
Tanzania	30	100	61	42	25	67	49	29
Thailand	100	50	18	50	39	50	40	32
Turkey	100	75	13	38	14	58	37	51
Uganda	27	75	51	53	54	42	26	41
USA	90	0	24	82	72	100	67	63
Uzbekistan	100	75	27	100	47	0	25	27
Viet Nam	100	50	41	57	35	17	66	27
Yemen	9	50	1	6	0	17	13	22

Country Scores for Category 5 (normalized values)

Country	Category 5: Gender-based Rights and Participation					
	Access to Land	Access to Property	Access to Credit	Women with Bank Accounts	Female Post-Primary Education	Female Literacy
Algeria	100	100	100	19	100	56
Argentina	100	100	100	31	100	98
Armenia	50	50	50	17	93	100
Australia	100	100	100	99	86	100
Bangladesh	50	50	50	34	100	43
Benin	0	0	0	8	7	0
Brazil	50	50	50	51	100	89
Burkina Faso	50	50	50	9	50	4
Burundi	0	0	100	4	50	81
Cameroon	0	0	50	9	64	57
Canada	100	100	100	98	93	100
China	50	50	50	60	86	91
Congo, DRC	50	0	0	1	0	35
Congo, Rep.	50	50	50	5	0	35
Costa Rica	100	100	50	40	100	96
Denmark	100	100	100	100	93	100
Dominican Republic	50	50	50	37	100	89
Egypt	100	0	100	5	93	58
Ethiopia	50	100	0	5	43	78
Fiji	50	100	50	33	100	90
Finland	100	100	100	100	100	100
France	100	100	100	97	93	100
Gabon	50	50	50	16	71	83
Gambia	0	50	50	16	93	28
Georgia	100	50	100	34	93	100
Ghana	0	50	50	27	71	58
Greece	50	100	50	76	86	96
Iceland	100	100	100	100	100	100
India	50	50	50	26	64	40
Indonesia	100	100	50	18	100	89
Italy	100	100	100	64	93	99
Jamaica	50	100	50	67	100	90
Jordan	50	50	50	16	100	93
Kenya	50	0	50	39	86	59
Kyrgyzstan	50	50	50	2	100	99
Lao	50	100	50	26	57	56
Lebanon	50	50	50	24	100	n/a
Liberia	100	100	100	13	64	11
Madagascar	50	100	100	3	93	53
Malawi	50	50	50	15	79	41
Mali	50	100	100	5	21	7

Country	Access to Land	Access to Property	Access to Credit	Women with Bank Accounts	Female Post-Primary Education	Female Literacy
Mauritania	50	100	50	11	71	49
Mexico	100	100	100	20	100	91
Moldova	50	100	50	16	100	99
Mongolia	50	100	100	83	100	98
Morocco	50	100	50	26	71	48
Mozambique	50	50	50	35	57	22
	Category 5: Gender-based Rights and Participation					
Country	Access to Land	Access to Property	Access to Credit	Women with Bank Accounts	Female Post-Primary Education	Female Literacy
Nepal	50	100	50	20	86	35
Netherlands	100	100	100	99	93	100
Norway	100	100	100	100	93	100
Pakistan	50	50	100	1	50	27
Panama	100	100	100	22	100	93
Philippines	50	100	50	33	100	95
Poland	100	100	100	68	93	100
Portugal	100	100	100	78	100	93
Romania	100	100	100	41	93	98
Saudi Arabia	50	50	100	14	79	79
South Africa	50	50	50	51	100	91
Spain	100	100	100	92	100	98
Sri Lanka	0	50	100	67	100	88
Sweden	100	100	100	100	93	100
Switzerland	100	100	100	100	86	100
Syria	50	50	50	18	93	73
Tajikistan	50	100	50	1	71	100
Tanzania	50	50	50	12	100	52
Thailand	50	100	50	72	71	90
Turkey	100	100	100	32	64	89
Uganda	0	0	0	14	71	57
USA	100	100	100	85	93	100
Uzbekistan	50	100	50	20	93	100
Viet Nam	50	100	100	17	100	100
Yemen	50	50	50	0	0	37

Country Scores for Category 6 (normalized values)

Country	Category 6:Country-level Reported Activities			
	Inclusion of Gender in UNFCCC reports	Inclusion of Gender in UNCCD reports	Inclusion of Gender in CBD reports	Inclusion of Sustainable Development Topics in CEDAW reports
Algeria	4	55	0	28
Argentina	2	32	0	35
Armenia	3	1	0	11
Australia	28	n/a	0	20
Bangladesh	76	68	0	46
Benin	2	48	38	47
Brazil	21	36	0	49
Burkina Faso	67	52	30	18
Burundi	3	18	28	42
Cameroon	11	30	22	29
Canada	10	0	0	7
China	4	24	2	57
Congo, DRC	78	5	12	35
Congo	22	2	0	35
Costa Rica	0	35	12	15
Denmark	37	n/a	0	6
Dominican Republic	1	22	62	49
Egypt	1	41	0	24
Ethiopia	1	86	2	57
Fiji	1	17	2	29
Finland	1	n/a	4	7
France	n/a	n/a	0	31
Gabon	0	2	6	40
Gambia	27	83	28	41
Georgia	1	0	0	21
Ghana	98	47	38	61
Greece	57	n/a	12	38
Iceland	82	n/a	2	25
India	100	100	26	52
Indonesia	0	0	22	30
Italy	0	0	0	5
Jamaica	24	48	12	50
Jordan	2	29	24	28
Kenya	55	96	70	34
Kyrgyzstan	11	0	12	46
Lao	4	1	28	49
Lebanon	12	34	64	35
Liberia	42	56	36	45

Country				
Madagascar	6	38	54	19
Malawi	92	57	34	57
Mali	20	2	4	40
Mauritania	7	21	30	48
Mexico	57	69	80	37
Moldova	13	0	0	13
Mongolia	5	46	14	40
Morocco	2	33	8	100

Country	Category 6:Country-level Reported Activities			
	Inclusion of Gender in UNFCCC reports	Inclusion of Gender in UNCCD reports	Inclusion of Gender in CBD reports	Inclusion of Sustainable Development Topics in CEDAW reports
Mozambique	1	43	20	36
Nepal	0	57	56	17
Netherlands	20	n/a	0	18
Norway	0	n/a	0	30
Pakistan	4	67	16	36
Panama	3	19	0	49
Philippines	2	2	32	38
Poland	0	n/a	0	25
Portugal	0	0	0	24
Romania	0	0	2	17
Saudi Arabia	0	0	2	31
South Africa	22	96	50	46
Spain	0	0	0	33
Sri Lanka	10	24	30	32
Sweden	2	n/a	4	3
Switzerland	2	n/a	2	5
Syria	2	31	14	35
Tajikistan	1	0	2	46
Tanzania	30	10	100	23
Thailand	1	0	24	38
Turkey	0	26	0	42
Uganda	58	84	4	32
USA	38	0	0	n/a
Uzbekistan	0	1	0	3
Viet Nam	23	34	24	55
Yemen	12	57	50	72

Appendix C: Indicator Descriptions

Category 1: Livelihood

Lower levels of Poverty

Description   National estimates of the percentage of the population falling below the poverty line are based on surveys of sub-groups, with the results weighted by the number of people in each group. Definitions of poverty vary considerably among nations. For example, rich nations generally employ more generous standards of poverty than poor nations.

Source/date   Various sources including National Statistics Bureaus, UN Data, World Bank, CIA World Factbook, 2012

Rationale   Though not sex-disaggregated it provides an overview of the level of 'relative' poverty in a country.

Highest value 8% (France) - best performer

Lowest value 71% (Congo, Democratic Republic) - worst performer

Data notes   Data from 1999 - 2012. Data on Norway could not be found so score is estimated (based on Iceland). Values are converted so that countries with the lowest levels of poverty have the highest scores i.e. the measure used is transformed to capture the percentage of the population that does not live in poverty.

Food Adequacy

Description   *This* measures the percentage of the population that is not at risk of not covering the food requirements associated with normal physical activity. Those at risk of not covering food requirements include those that cannot be considered chronically undernourished, but are likely being conditioned in their economic activity by insufficient food. According to the FAO, this is a broader measure of food adequacy in the population. It is conceptually analogous to the prevalence of undernourishment (proportion of the population estimated to be at risk of caloric inadequacy) but calculated setting the caloric threshold to a higher level, by using a Physical Activity Level (PAL) coefficient of 1.75, as opposed to 1.55.

Source/date   FAO, 2012 (http://faostat3.fao.org/home/index.html)

Rationale   *Inadequate levels of food affect a woman's* overall well-being and also restricts her activity levels and ability to participate fully in society.

Highest value 100 % (Canada, Denmark, Egypt) - best performer

Lowest value 23 % (Burundi) – worst performer

Data notes   Scores are averaged for 2000 - 2012. The original FA measure for 'food inadequacy' was converted so that it reflects 'food adequacy'. Countries with less 'inadequacy' receive higher scores. All countries with a score of <5% poverty were converted to 100 'food adequacy' or 100%. Data on Vietnam was missing. Its score is based on the South East Asian region's average score for 2000 - 2012.

Lower levels of women with Anemia

Description   *Percentage of the female population (pregnant or not pregnant) who do not have anemia based on the* WHO's definition of anemia (hemoglobin treshhold level of 110g/L).

Source/date   WHO, 2012 (http://www.who.int/topics/anaemia/en/) *forthcoming

Rationale   Anemia in women reduces their work productivity and places them at risk for poor pregnancy outcomes including increased risk of maternal mortality, perinatal mortality, premature births and low birth weight. Greater percentages of women with anemia are also an indication of inadequate nutrition for women.

Highest value   90% (United States) - best performer

Lowest value   38% (Mali) - worst performer

Data notes   Final percentages are 1990 - 2012 averages. Higher value indicates less anemia. We converted the original WHO measure of anemia to measure the percentage of women without anemia.

Less solid fuel use

Description   Percentage of households not using solid fuels.

Source/date   Kirk Smith, Environmental Health Sciences, University of California, Berkeley, 2010

Rationale   Household use of solid fuels contributes to indoor air pollution and severe health problems, especially for women and children. Non-renewable harvesting of biomass contributes to deforestation. Collection of firewood means an extra time burden for women and children, who have less time available for educational or income generating activities.

Highest value   100% (Denmark, Poland, Lebanon) - best performers

Lowest value   2% (Ethiopia) - worst performer

Data notes   Data from 2010. Higher value indicates less solid fuel use. All countries given a final score of <5% solid fuel use were converted to 100% (i.e. no solid fuel use). The value for the USA was missing and was estimated at 100%.

Access to improved water source

Description   This indicator measuring access to 'improved drinking water sources' includes sources that, by nature of their construction or through active intervention, are protected from outside contamination, particularly fecal matter. It comprises piped water on premises such as piped household water connection located inside the user's dwelling, plot or yard. Other improved drinking water sources include public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs and rainwater collection.

Source/date   UNICEF/JMP (2012)(www.unicef.org)

Rationale   Water is a critical resource for women's empowerment. Water collection means an extra time burden for women and children, who have less time available for educational or income generating activities.

Highest value   100% (Canada, France, Finland, etc) - best performer

Lowest value   46% (Dem. Rep. Congo) - worst performer

Data notes   Most data from 2011(except Romania and Lebanon data from 2000). Higher scores indicate better access. Value for Australia and Poland were missing and estimated at 100%.

Access to improved sanitation

Description: This indicator measures access to improved sanitation which includes facilities that ensure hygienic separation of human excreta from human contact. They include:

- Flush or pour-flush toilet/latrine to either a piped sewer system, septic tank, or pit latrine;
- Ventilated improved pit (VIP) latrine;
- Pit latrine with slab;
- Composting toilet.

Source/date   UNICEF/JMP, 2012 (www.unicef.org)

Rationale   Lack of sanitation facilities and poor hygiene cause water-borne diseases. Gender-based violence and women's health needs are particularly important when it comes to the location and availability of latrines, including in school environments. Women often face challenges in access to sanitation facilities when trying to access natural resources that are at a distance from their household.

Highest value   100% (Canada, Denmark, Finland) - best performers

Lowest value   12% (Tanzania)- worst performer

Data notes   Most data from 2011(except Lebanon, Romania and Poland data from 2000). Higher scores indicate better conditions. Value for Australia and Italy were missing and estimated at 100%.

Category 2: Ecosystem

Biodiversity Preservation

Description   The weighted percentage of biomes (i.e. ecosystems) under protected status. Countries are not rewarded for protecting beyond 17% of any given biome (scores are capped at 17% per biome) so that higher levels of protection of some biomes cannot be used to offset lower levels of protection of other biomes.

Source/date   Biome variable from the Environmental Performance Index (EPI) http://epi.yale.edu/epi2012/rankings) original data compiled from: UNEP's World Database of Protected Areas (www.protectedplanet.net) and WWF Ecoregions of the World (www.worldwildlife.org)

Rationale   Millions of women and men live within protected areas and depend upon the natural resources for survival. Our inclusion of this measure of biome protection assumes that a more diverse and geographically larger area of protected area in a country translates into a greater possibility that women have access to the natural resources they need. It also assumes that good governance in a country always includes both the environment and gender equality. Although there is some new evidence connecting women's participation to protected areas, we have not yet researched this connection ourselves. And conversely, a country with a high percentage of protected areas may have laws and practices in the gender equality arena that are not as positive, or vice versa. This conundrum is similar for all of the variables we are using that are drawn from the EPI.

Highest value   17 (Jamaica, Saudi Arabia, Poland) - best performers

Lowest value   0 (Dominican Republic) - worst performer

Data notes   Data from 2010.

Critical Habitat Protection

Description The percentage of the total Alliance for Zero Extinction (AZE) site area that is within protected areas. The AZE has identified 587 sites that each represents the last refuge of one of more of the world's most highly threatened 920 species. From the perspective of biodiversity conservation, protection of these sites is of the highest priority.

Source/date Environmental Performance Index (EPI) 2012 (http://epi.yale.edu/epi2012/rankings). Original data compiled from: Alliance for Zero Extinction (www.zeroextinction.org) and UNEP's World Database on Protected Areas (WDPA) (www.unep-wcmc.org/)

Rationale Millions of women and men live within protected areas and depend upon the natural resources for survival. Our inclusion of this measure of critical habitat protection assumes that a more diverse and geographically larger area of protected area in a country translates into a greater possibility that women have access to the natural resources they need. It also assumes a connection between the most biologically diverse areas and women's traditional knowledge of diverse species.

Highest value 99.98 (Spain) - best performer

Lowest value 0 (Gabon) - worst performer

Data notes Data from 2010. There are 36 countries that do not have sites designated as 'critical' by the Alliance for Zero Extinction (AZE) and therefore are left as missing values (and not estimated).

Higher Quality Forests

Description Based on the measure for 'Forest Growing Stock' developed for the EPI. Forest growing stock is a volumeric measure that measures the cubic meters of wood over bark of all living trees more than X cm in diameter at breast height. The definition of X may vary by country. An increase in growing stock usually means higher quality forests, whereas a decrease in growing stock generally indicates degrading forest conditions.

Source/date Environmental Performance Index (EPI) 2012 (http://epi.yale.edu/epi2012/rankings) original data compiled from: FAO's Growing stock in forest in Global Forest Resources Assessment (www.fao.org) Data period covered 1990, 2000, 2005 and 2010

Rationale Women are dependent on access to and control of forest resources, including Non-Timber Forest Products.

Highest value 1.00 (Argentina, Thailand, Uzbekistan, etc.) - best performers

Lowest value 0.35 (Saudi Arabia) - worst performer

Data notes Data from 2000 - 2005. This variable measures the change in forest growing stock between 2000 and 2005. The best condition receives a value of 1 (converted from zero in the original EPI indicator). In order to be included, countries must have a minimum of 100sq. km of forested land. Seven countries do not meet this requirement and are not included (Australia, Benin, Burundi, Fiji, Iceland, Mexico and Syria).

Equal Legal Rights

Description   This variable is a composite measure of women's equal legal rights (for married and unmarried women) in terms of 'the law' (i.e. constitutional rights) for the following 11 dimensions. The response that receives the highest score is shown in parenthesis:

> *1) If either customary or personal laws are valid sources of law, are they considered invalid if they violate constitutional provisions on discrimination or equality? (No)*
>
> *2) Who legally administers joint marital property? (Both spouses)*
>
> *3) In the case of dissolution of the marriage, who is entitled to ownership of the marital home? (Both spouses)*
>
> *4) For property acquired during the course of a marriage, is there a legal presumption of joint ownership between the husband and the wife? (Yes)*
>
> *5) Does joint titling of major assets (such as land or the marital home) exist for married couples? (Yes)*
>
> *6) If joint titling exists for married couples, is it the default for marital property? (Yes)*
>
> *7) Do sons and daughters have equal inheritance rights to moveable property from their parents? (Yes)*
>
> *8) Do sons and daughters have equal inheritance rights to immoveable property from their parents? (Yes)*
>
> *9) Do female and male surviving spouses have equal inheritance rights to moveable property? (Yes)*
>
> *10) Do female and male surviving spouses have equal inheritance rights to immoveable property? (Yes)*
>
> *11) In the case of the death of one of the spouses, does the surviving spouse, regardless of gender, have equal inheritance rights to the marital home? (Yes)*

Source/date   World Bank's Women, Business, and the Law database, 2012 (http://wbl.worldbank.org/)

Rationale   *Equal legal rights for women (married, unmarried or surviving spouse) as well as equal access to ownership and inheritance rights form the foundation for a woman's ability to exercise control over her livelihood and her voice in society*

Highest value   11 (27 countries including Mozambique, South Africa, Canada, etc.)

Lowest value   0 (Five countries: Egypt, Jordan, Lebanon, Mauritania and Morocco)

Data notes   Data from 2009 - 2011. For 46 countries, question #1 is not relevant (based on customary law) and so their final scores were averaged out of 10 instead of 11 variables. For Malawi, two variables are missing (question #10 and #11). No data on Gambia was available and since it is virtually impossible for us to estimate this with any accuracy, Gambia is missing from this analysis.

CEDAW Ratification

Description   Country ratification of CEDAW, including Optional Protocol and reservations.

Source/date	Economist Intelligence Unit (EIU) Women's Economic Opportunity Index, 2012
	(https://www.eiu.com/public/topical_report.aspx?campaignid=weoindex2012)
Rationale	*If women's equal rights are not ensured by law, then they will be limited in their economic capabilities to ensure their livelihoods, as well as their abilities to exercise equal influence on decisions made that affect environmental sustainability as well as be legally limited in their abilities. Furthermore if a country has ratified CEDAW as well as Article 29 then women have the option for international arbitration if their rights have been violated.*
Highest value	100 (Iceland, Ghana, Mexico, etc.) - best performers
Lowest value	0 (United States) - worst performer
Data notes	Data is from 2010. This is a 5 point scaled variable (0 - 25- 50 - 75 - 100) where 100 is the highest and best score:

- 0 = CEDAW has not been ratified by the country under consideration;
- 25 = CEDAW has been ratified by the country under consideration, but has reservations with CEDAW articles, other than Article 29. The country has not signed the Optional Protocol;
- 50 = CEDAW has been ratified by the country under consideration, but has reservations with CEDAW Article 29 only. The country has not signed the Optional Protocol;
- 75 = CEDAW has been ratified by the country under consideration without reservations, but has not signed the Optional Protocol;
- 100 = CEDAW has been ratified by the country under consideration without reservations, and has signed the Optional Protocol.

Women on Delegations to Rio Conventions

Description	Average percentage of women in each country delegation to the Conferences of Parties (COPs) as listed on the official List of Participants published by UNFCCC, UNCCD, and CBD[47].
Source/date	EGI team assessment of COP List of Participants at the following COP meetings:

- CBD: COP 8 (2006); COP 9 (2008); COP 10 (2010); COP 11 (2012)
- UNCCD: COP 7(2005); COP 8 (2007); COP 9 (2009); COP 10 (2011)
- UNFCCC: COP 14 (2008); COP 15(2009);COP 16 (2010); COP 17 (2011); COP 18 (2012)

Rationale	Higher percentages of women in delegations increases their voice and participation in the environmental arena.
Highest	53% (Lebanon)

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[47] In some cases, the listed participants may be slightly different from the government's official delegates (for example, some individuals who don't work for the government may have been attending the COP but not representing the government), however we didn't have access to that information, and the List of Participants still represents the level of gender balance in governments' accreditation of their country team.

Lowest   0% (Saudi Arabia)
Data notes   Data averaged from 2005 - 2012.

Female Managers, Legislators and Senior Officials

Description   Percentage female managers, legislators and senior officials.
Source/date   World Economic Forum's Global Gender Gap Report, 2012
(http://www.weforum.org/reports/global-gender-gap-report-2012)
Original data compiled from the ILO's LABORSTA database (2008 or
latest data available; UNDP Human Development Report 2009 (the most
recent year available between 1999 - 2007).
Rationale   Higher percentages of women in leadership and decision-making
positions indicate women's ability to participate in environmental
preservation/sustainability (if they choose to).
Highest   59% (Jamaica) - best performer
Lowest   2% (Yemen) - worst performer
Data notes   Data from 2011. There are 20 countries with missing values and their
scores were estimated based on regional averages.

Women in Policy-making positions

Description   Average percentage of women in parliament 2000 – 2012.
Source/date   Inter-Parliamentary Union (IPU), 2000-2012 (www.ipu.org)
Rationale   Indicating women's access to leadership and decision-making positions.
Highest value 82% (Sweden)
Lowest value 0% (Saudi Arabia)
Data notes   Average percentage from 2000 - 2012.

Category 4: Governance

Civil Liberties

Description   *Freedom in the World*, Freedom House's flagship publication, is the
standard-setting comparative assessment of global political rights and
civil liberties. Published annually since 1972, the survey ratings and
narrative reports cover 195 countries and 14 related and disputed
territories.
Source/date   Freedom House, 2012 (http://www.freedomhouse.org/report-
types/freedom-world)
Rationale   Provides an indication of women's (and men's) ability to participate in
environmental preservation/sustainability.
Highest value 7 (Australia, Norway, Sweden, etc.) – best performers
Lowest value 1 (Saudi Arabia, Syria, Uzbekistan) - worst performers
Data notes   The original 7-point scale was converted so that 7 equals free (best
score) to 1 equals not free (lowest score).

Political Stability

Description   Political stability and absence of violence measures perceptions of the
likelihood that the government will be destabilized or overthrown by
unconstitutional or violent means, including politically-motivated violence
and terrorism.
Source/date   World Bank's World Governance Indicators

(http://info.worldbank.org/governance/wgi/mc_countries.asp)

Rationale   Political turmoil is linked to both natural resource destruction and gender equality.

Highest value 1.52 (Finland) – best performer

Lowest value -2.20 (Congo, Democratic Republic of) – worst performer

Data notes   Variable values range from 2.5 as the highest score to -2.5 as the lowest score. Averaged score for 2000 – 2011. The WGI compile and summarize information from 30 existing data sources that report the views and experiences of citizens, entrepreneurs, and experts in the public, private and NGO sectors from around the world, on the quality of various aspects of governance. The WGI draw on four different types of source data: 1) Surveys of households and firms; 2) Commercial business information providers; 3) Non-governmental organizations ; and, 4) Public sector organizations.

Protection of Property Rights

Description   Based on expert survey responses to: "How would you rate the protection of property rights, including financial assets, in your country?"

Source/date World Economic Forum, 2012 2011 - 2012 weighted averages (www.weforum.org)

Rationale   If property rights are weak and ownership cannot be insured for land, and other resources, it can result in a number of negative externalities such as opportunism, misuse, overuse and most critically limited development because the owners (female or male) cannot be insured that they will benefit from their investments (such as more efficient irrigation, sustainable crops, etc.

Highest value 6.5 (Finland) - best performer

Lowest value 2.4 (Burundi) - worst performer

Data notes   Based on weighted averages for 2011 - 2012 time period. This is a 7 point scaled variable where 1 equals very weak and 7 equals very strong. There are 6 country values that were estimated using additional sources (Democratic Republic of Congo, Republic of Congo, Fiji, Lao, Syria and Uzbekistan).

Category 5: Gendered Education and Assets

Access to Agricultural Land

Description   Women's access to agricultural land.

Source/date OECD Gender, Institutions, and Development Database (GID), 2012 (www.oecd.org)

Rationale   Women's ability to be an agricultural stakeholder.

Highest value 1 (Argentina, Panama, Costa Rica, etc.) – best performer

Lowest value 0 (Burundi, Cameroon, Sri Lanka, etc.) – worst performer

Data notes   Data from country specific sources provided in the OECD SIGI country profiles for 2011. Score is based on women's legal rights and de facto rights to own and/or access agricultural land. This is a 3 point variable based on the following scale:
   • 1 = Women have the same legal rights as men to own and access land

- 0.5 = Women have equal legal rights with men to own and access land, but discriminatory practices restrict women's access to and ownership of land in practice
- 0 = Women have no/few legal rights to access or own land or access is severely restricted by discriminatory practices

Missing values for 18 developed countries estimated via internet search of OECD databases.

Access to Property

Description Women's access to property other than land.
Source/date OECD Gender, Institutions, and Development Database (GID), 2012
Rationale Women's equal access to resources such as property affects her abilities to engage in decision-making and impact the environmental arena.
Highest value 1 (Thailand, Indonesia, Madagascar, etc.) – best performers
Lowest value 0 (Uganda, Kenya, Egypt, etc.) – worst performers
Data notes Data from country specific sources provided in the OECD SIGI country profiles for 2011. Score is based on women's legal and de facto access to property other than land. This is a 3 point variable based on the following scale:

- 1 = Women have equal legal rights to own and administer property other than land as men

- 0.5 = Women only have rights to own and administer some kinds of property (i.e. goods they received from their parents such as inheritance or dowry) or they have equal legal rights but in practice they face socio-cultural discrimination to owning and administering property

- 0 = Women have no/few/unequal legal rights to own or administer property other than land or their access is severely restricted by discriminatory practices

Missing values for 18 developed countries estimated via internet search of OECD databases.

Access to Credit

Description Score based on women's legal and de facto access to credit.
Source/date OECD Gender, Institutions, and Development Database (GID), 2012 (www.oecd.org)
Rationale The importance of women having access to a key resource that increases women's abilities to prosper economically which will also affect their abilities to actively participate in the environmental arena.
Highest 1 (Costa Rica, Egypt, etc.) – best performers
Lowest value 0 (Benin, Congo (Rep), Ethiopia) – worst performers
Data notes Data from country specific sources provided in the OECD SIGI country profiles for 2011. This data set uses a 3-point scale:

- 1 = Women have the same rights to access credit and bank loans as men.

- 0.5 = Women only have the right to access some kinds of credit (for example only through microcredit), or they have rights but in practice they face discrimination in accessing credit.

- 0 = Women have no/few rights to access credit or access is severely restricted by discriminatory practices.

Missing values for 18 developed countries estimated via internet search of OECD databases.

Access to Bank Accounts

Description   This indicator measures the percentage of women (age 15+) with a bank account at a formal financial institution.

Source/date   World Bank's Global Financial Inclusion Database *(*Findex)*, 2011 (http://econ.worldbank.org/)

Rationale   Proxy for women's ability to access 'formal' institutions, be involved in the formalized economy (vs. informal) providing an indication of their abilities to participate more widely in 'formal' decision-making capacities.

Highest value 100% (Sweden, Denmark, Finland)- best performers

Lowest value 2% (Yemen)- worst performer

Data notes   Data from 2011. Missing values for 6 countries (Ethiopia, Fiji, Gambia, Iceland, Norway, Switzerland) were estimated based on neighboring country scores.

Access to Post-Primary Education

Description   Percentage of female students who completed secondary education 2005 - 2012 (average).

Source/date   UNESCO, 2005-2012 (www.unesco.org)

Rationale   Women who have post-primary education have greater potential for more impactful involvement (greater voice) in the environmental arena.

Highest value 50% (Bangladesh, Brazil, Indonesia)

Lowest value 36% (Congo, Dem. Rep., Yemen)

Data notes   Score is the average percentage for 2005 - 2012. Capped at 50% so that the highest possible percentage is 50%. There are 5 countries missing from the original dataset that were estimated (Congo, Rep. as Congo Dem. Rep; Ethiopia as Burkina Faso; Gabon as Ghana; Lebanon as Jordan; and, Vietnam as Thailand). The data for Liberia is for 2012 only.

Access to Literacy

Description   Percentage of female population (15+ yrs) who are literate.

Source/date   UNICEF/World Bank, 2005 - 2012 (average) (www.unicef.org)

Rationale   Literacy is key for women's increased participation and understanding as well as ability to participate in decision-making and leadership roles in the environmental arena.

Highest value 100% (Armenia, Uzbekistan, Viet Nam, etc.) - best performers

Lowest value 19% (Benin) - worst performer

Data notes   There are 12 countries missing from the original dataset with estimated values:
Australia, Canada, Denmark, Finland, France, Iceland, Netherlands, Norway, Sweden, Switzerland were missing and estimated at 100%. Congo, (Republic of) was missing and estimated as Congo (Democratic Republic of). Lebanon is left as a missing value.

For the following 4 indicators, the EGI Team analyzed country reports to the UNFCCC, UNCCD, CBD, and CEDAW and ranked the individual countries accordingly. The purpose was to capture the integration of a gender approach into a country's environmental efforts (UNFCCC, UNCCD, CBD) as well as how a country addresses natural resource issues that are relevant to CEDAW within its gender mainstreaming efforts. The analysis consisted of keyword searches and the extent of gender mainstreaming in reported actions[48].

Inclusion of Gender in UNFCCC Reports

Description   Inclusion of gender terminology and gender-related action in UNFCCC National Adaptation Programmes for Action (NAPAs) and National Communications (NCs).

Source/date   Analysis by EGI team; Each country's most recent report was used (1999 - 2012)

Highest value 0.55 (India) - best performer

Lowest value   0 (Costa Rica, Nepal, Norway, etc.) - worst performers

Data notes   Use of keywords measuring the inclusion of gender were averaged by the total number of report pages and were added to the average of gender project measures. The report for France was not located at the time of analysis, but was later identified and will be analyzed in the next round.

Inclusion of Gender in UNCCD Reports

Description   Inclusion of gender terminology and gender-related action in UNCCD National Action Programs (NAPs)

Source/date   Analysis by EGI team; Each country's most recent report was used (1996 - 2010)

Highest value 0.85 (India) - best performer

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[48] The analysis of country reports to the Rio Conventions and CEDAW was a labor-intensive undertaking and included the review of more than 300 reports over the course of 6 months. The EGI core team handled the large majority of reports that are in English and additional consultants were brought into handle a handful of reports in Spanish, French, Arabic, Russian, and Portuguese. The keyword search for the Rio Conventions included the words gender, sex, female, women, woman, gender equity, and gender equality. The keyword search for CEDAW included the words agrarian, agricul* (agriculture, agricultural), credit, energ*, environment, farm*, fish*, food, food security, land, loan/loans, natural resources, rural women, and water. The search terms were developed based on a sample group of country reports to these conventions. Some words that we did not include for the CEDAW analysis - including forest* and biodiversity - will be included in the EGI's 2nd phase. The keyword search required careful analysis of the terms included in the report - as one example, many mentions of "female" referred to livestock and not women. The second part of the report analysis was a gender analysis of actions and projects included in the report. The following elements were scored: a) Inclusion of a gender-related action/project in the report, b) Gender/women included in project title, c) Gender/women as one of the objectives, d) Explanation of the project's contribution to gender equality or women's empowerment, e) Specific activities on gender/women described, f) M&E of gender-related actions mentioned, g) Implementing institution mentioned, h) Implementing institution has gender expertise, i) Timeframe devoted to gender-related activities listed, j) Resources allocated to gender-related activities. This analysis was more qualitative than the keyword search and involved careful analysis of projects throughout the report. One of the overall challenges we faced was the scattered availability of reports online. Often country reports were missing online or organized in a fashion that made it difficult to determine the country's most recent report (and activities). On several occasions, the team would encounter a group of countries' latest reports after having completed analysis of earlier reports that seemed to be the latest. Another challenge was the lack of continuity between country reports - one country may prepare a report of over 150 pages while another country submitted a report of less than 10 pages. We got around this challenge by controlling for the number of pages. While the report analysis was a painstaking process, this is the first effort of its kind to analyze gender-environment in a large group of country reports to the Rio Conventions and CEDAW. We believe it is an important contribution to the EGI and hope the act of monitoring will contribute to accountability to global gender mandates and create momentum for future actions on gender-environment.

Lowest value   0 (Moldova, Indonesia, Canada, etc.) - worst performers
Data notes   Use of keywords measuring the inclusion of gender were averaged by the total number of report pages and were added to the average of gender project measures. There are 11 developed countries whose UNCCD reports did not relate to their domestic situation. UNCCD confirmed that developed countries often focus their reports on bilateral aid to other countries dealing with desertification issues. These 11 countries reports were not included and treated as missing variables (Australia, Denmark, Finland, France, Greece, Iceland, Netherlands, Norway, Poland, Sweden, Switzerland).

Inclusion of Gender in CBD Reports

Description   Inclusion of gender terminology and gender-related action in CBD NBSAPs and National Reports
Source/date   Analysis by EGI team; Each country's most recent report was used (1994 - 2013)
Highest value 0.5 (Tanzania) - best performer
Lowest value 0 (Bangladesh, Panama, Turkey, etc.) - worst performers
Data notes   Use of keywords measuring the inclusion of gender were averaged by the total number of report pages and were added to the average of gender project measures. Country level data from 1994 - 2013.

Inclusion of Sustainable Development Topics in CEDAW Reports

Description   Inclusion of natural resources and sustainable development terminology and related actions in CEDAW reports.
Source/date   Analysis by EGI team; Each country's most recent report was used (1998 - 2012)
Highest value 2.65 (Mozambique)- best performer
Lowest value 0.08 (Uzbekistan) - worst performer
Data notes   Use of keywords measuring the inclusion of resources and sustainable development were averaged by the total number of report pages and were added to the average of sustainable development project measures. The USA has not ratified CEDAW so there is no report available and it is treated as a missing value.

Appendix C: Variable Descriptions for Additional Country Data

GDP (per capita)

Description   GDP is the market value of officially recognized final goods and services produced within a country in a given period of time. GDP per capita is often considered an indicator of a country's standard of living. GDP is included for comparative purposes.

Source/date   World Bank's World Governance Indicators (www.worldbank.org)

Data notes   Data from 2012.

Women Agricultural Holders

Description   The percentage of women agriculture holders. The definition of agricultural holder varies from country to country, but widely refers to the person or group of persons who make the major decisions regarding resource use and exercise management control over the agricultural holding operation. The agricultural holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities related to the management of day-to-day work. The agricultural holder is often, but not always, the household head.

Source/date   (2012) The State of Food and Agriculture 2010- 2011, FAO, p. 118 - 126 (www.fao.org)

Data notes   *Data from 2011.* Only available for a limited number of countries - missing data for 33 out of 72 countries.

Female Graduates in Science

Description   Percentage of female graduates in science (in terms of total female graduates for that year)

Source/date   UNESCO, 2001 - 2012 (www.unesco.org)

Data notes   Most data from 2009 - 2012 (exceptions: Canada (2001); Gambia (2004); Italy (2004). Excessive missing values - 36 missing values out of 72 countries.

Percent of Gender-responsive GEF Projects

Description   The percentage of GEF projects that included gender-related keywords and gender-responsive actions in project description documents.

Source/date   (2013) GEF Country Profile. (http://www.thegef.org/gef/country_profile)

Data notes   Data accessed 2013. Only applicable for a limited number of countries - 54 out of 72 countries.

Percentage of Female-headed Households

Description   Percentage share of rural households that are female headed.

Source/date   (2012) The State of Food and Agriculture 2010- 2011, FAO, p. 118 - 126 (www.fao.org). Data originally collected through DHS/ICF surveys.

Data notes   Data from 2010. Only available for a limited number of countries - missing data for 36 out of 72 countries.

Women Working in the Informal Economy

Description   Percentage share of informal jobs in total employment for women.

Source/date   (2012) International Labor Organization (ILO) (www.ilo.org)
Data notes   Data from various years 2004 - 2010. Excessive missing values - data
               available for only 19 out of 72 countries.

Women Engaged in Vulnerable Employment
Description   Vulnerable employment measures the number of women working as
               unpaid family workers and own-account workers as a percentage of total
               employment. Own-account workers are those workers who, working on
               their own account or with one or more partners, hold the type of job
               defined as a self- employed job, and have not engaged on a continuous
               basis any employees to work for them during the reference period.
Source/date (2012) International Labor Organization (ILO) (www.ilo.org)
Data notes   Latest data available 2000 - 2012. Data available for 58 out of 72 countries.

Percentage of Female Internet Users
Description   The percentage of female internet users.
Source/date   (2012) World Bank (www.worldbank.org)
Data notes   Latest data available 2008 - 2012. Data available for 23 out of 72 countries.

Legal Quotas for Women in Policy-Making Positions
Description   Score assigned based on the existence of legal quotas to promote
               women's political participation at national and/or sub-national levels.
Source/data OECD Gender, Institutions, and Development Database, 2012 (oecd.org)
Rationale   Legal quotas provide women with greater and more equal participation in
               leadership and decision making roles.
Data notes   Data from 2011. Three scaled variable:
               • Yes = There are legal quotas to promote women's political
                 participation at national and sub-national levels
               • Partial = There are legal quotas to promote women's political
                 participation at national or sub-national levels
               • No = There are no legal quotas to promote women's political
                 participation
               Data missing for 17 developed countries. Political Quotas are not
               necessarily indicative of women's position in society. Including this
               indicator in the index may result in penalizing countries where women are
               elected without quotas.

Female Mobile Phone Subscribers
Description   Regional averages for female mobile phone subscribers.
Source/date Group Special Mobile Association (GSMA), accessed in the report
               Women and Mobile: A Global Opportunity (2010)
               (http://www.cherieblairfoundation.org/women-and-mobile-a-global-
               opportunity/)
Data notes   Data from 2009. Seven regional percentages used: Sub-Saharan Africa
               26%; Asia 27%; East Asia and Pacific 41%; Middle East and North Africa
               46%; Latin America and Caribbean 58%; Eastern Europe and Central
               Asia 59%; Europe, North America 78%. Using regional averages for
               female mobile phone subscribers may mask substantial country
               differences.

Appendix D: Removed Indicators

There are many indicators and data sets that would ideally be included, but the following indicators were removed due to limited data availability or conceptual clarity.

Indicators	*Data source*	*Reason for removal*
Contraceptive prevalence rate	World Health Organization (WHO)	The relationship of contraceptive use is unclear for this index. Contraceptive use is an indicator that has been used by UNDP in the Human Development Report research on women's participation and environmental sustainability.
Body Mass Index	Food and Agriculture Organization (FAO)	Sex-disaggregated data exists but it is difficult to interpret as a measure for 'access to nutrition'
Electrification	International Energy Agency (IEA)	Data for 38 countries missing, the vast majority of which are developing countries. Sex-disaggregated data does not exist.
Equal rights of unmarried and married men and women to ownership rights of moveable and immoveable property	Women Business and the Law (WBL) database	Very little or no variation in responses exists for the 72 countries in the EGI.
Infrastructure (road coverage, paved roads, etc.)	World Bank (WB)	Only available for a limited number of countries - no sex-disaggregated data exists

Appendix E: Other Variables of Interest

The following issues were not included in the index due to lack of sex-disaggregated data.

Variables	Reason not included in the index
Women in senior positions in Agriculture *Studies conducted by FAO in Africa and Europe indicate that women do not hold senior or policy-making positions in this sector. Rather, they are primarily employed in administrative and support roles, with professional women foresters tending to have specialist roles (e.g. research) or first-line junior management positions.*	Sex-disaggregated data on the number of women employed by the sector are not available on a comprehensive basis. Source: FAO (2012: 16)
Women in Forestry *The Global Forest Resource Assessment 2010 reports that the forestry sector worldwide employed approximately 11 million people in 2005*	There is limited information on the numbers and roles of women in contracting or self-employed forestry work. Source: FAO (2012:16)
Female farmers	Data on female farmers are limited. Most women who engaged in farming do so within a household production unit, and their activities are not usually separable from those of the household as a whole. Source: FAO (2012: 23)
Urban-rural divide	This could not be included because no indicators exist with broad country coverage based on uniform measurement methodology. Sex-disaggregated data not available.
Renewable energies	This could not be included because no indicators exist with broad country coverage based on uniform measurement methodology. Sex-disaggregated data not available.
Women working in the "green economy"	No standard definition exists for what constitutes the 'green economy'. Sex-disaggregated data not available.
Women's vulnerability during natural disasters *Natural disasters on average kill more women than men or kill women at a younger age than men, and the more so the stronger the disaster*	No control for natural vs. disasters due to environmental degradation or climate change. Data is quite distorted since there is no universal definition for 'natural disaster' and this label is based on individual

There is nothing natural in the gendered impact of disasters on life expectancy. Source: Neumayer & Plumper (2007)

Indigenous women

country 'judgment' As a result, the USA has one of the highest rates of natural disasters.

There is no comprehensive sex-disaggregated data collected. Furthermore, there is no 'working' definition for indigenous people used for quantitative cross-country analysis

Female agriculture extension workers

There is no comprehensive sex-disaggregated data available.

Percentage of women living in poverty

There is no comprehensive sex-disaggregated data available.

Female graduates with degrees in Science, Agriculture, Forestry, Environmental Protection, etc.

There is no comprehensive sex-disaggregated data available.

Women involved in marine protection

There is no comprehensive sex-disaggregated data available.

Property rights protection for women

There is no comprehensive sex-disaggregated data available.

Women involved in fisheries

There is no comprehensive sex-disaggregated data available.

Appendix F: National Estimation of Poverty

National Estimation of Poverty: Data year and data sources used			
Country	**Data year**	**Data source**	**Description/website**
Algeria	2010	Algeria Statistics	http://www.ruralpovertyportal.org/web/guest/country/statistics/tags/algeria
Argentina	2010	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Armenia	2010	UNData	Armenia PA 2012 - Input to Armenia ER
Australia	2012	Australian Council of Social Service (ACOSS)	http://www.acoss.org.au/policy/poverty
Bangladesh	2010	UNData	Bangladesh Bureau of Statistics Source; HIES 2010; based on the BBS method anchored to HIES (2005) upper poverty lines; inflation adjustment based on HIES data, not CPI
Benin	2007	UNData	Enquête Modulaire Intégrée sur les Conditions de Vie des Ménages (EMICoV
Brazil	2009	UNData	National Source (www.ipeadata.gov.br) Novo Pesquisa Nacional por Amostra de Domicilios; from 2004 onwards estimates also includes Rural North, and thus not comparable with previous series; Moderate Poverty Line (individuals)
Burkina Faso	2009	UNData	Institut National de la Statistique: Burkina Faso La Pauvreté en 2009: Incidence de la pauvreté. Comparable with the 2003 estimates
Burundi	2006	UNData	Republic of Burundi: Poverty Reduction Strategy Paper: PRSP First Annual Progress Report. IMF Country Report No. 07/46. Not comparable with prior estimates.
Cameroon	2007	UNData	Institut National de la Statistique: Tendances, profil et déterminants de la pauvreté au Cameroun entre 2001-2007. Comparable series since 1996.
Canada	2009	Statistics Canada	People PatternsConsulting based on StatisticsCanada, Income inCanada, 2009 http://www.vanierinstitute.ca/include/get.php?nodeid=1779
China	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.htm
Congo, DRC	2006	UNData	Poverty Reduction Strategy Paper: IMF Country Report
Congo, Rep.	2011	UNData	Deuxieme enquete congolaise aupres des menages pour suivi et L'Evaluation de la pauvrete (ECON 2011): Extrait du Profil de la pauvrete au Congo en 2011.
Costa Rica	2011	UNData	National Source (www.inec.go.cr) ENAHO; Moderate Poverty Line (individuals)
Denmark	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Dominican Republic	2011	UNData	National Source (Oficina Nacional de Estadistica) Encuesta Nacional de Fuerza de Trabajo; April and October average; Moderate Poverty Line (individuals)
Egypt	2008	UNData	National Source; Ministry of Economic Development, Government of the Arab Republic of Egypt
Ethiopia	2011	UNData	Ethiopia's Progress Towards Eradicating Poverty: An Interim Report on Poverty Analysis Study (2010/11). Comparable series since 1995.
Fiji	2009	UNData	National Source (Fiji Islands Bureau of Statistics): Poverty and Household Incomes in Fiji
Finland	2011	Statistics Finland	A person whose household income per consumption unit is less than 60 per cent of the median income is considered living at risk of poverty http://www.stat.fi/til/tjt/2011/02/tjt_2011_02_2013-03-20_tie_002_en.html
France	2010	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Gabon	2005	UNData	Gabon: Diagnostique de la Pauvrete and Enquête Gabonaise sur l'évaluation et le suivi de la pauvreté from 2005

Country	data year	data source	Description/website
National Estimation of Poverty: Data year and data sources used			
Gambia	2010	UNData	Integrated Household Survey poverty Assessment - 2010. Not comparable with prior series.
Georgia	2010	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Ghana	2006	UNData	Ghana Statistical Service: Poverty Trends in Ghana in the 1990s. Comparable series since 1992.
Greece	2009	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Iceland	2009	Iceland Statistics	http://www.statice.is/Pages/444?NewsID=5093
India	2010	UNData	National Source; Planning Commision, Government of India
Indonesia	2012	UNData	National Source (http://dds.bps.go.id/eng/); Based on SUSENAS using GSO expenditure poverty line
Italy	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Jamaica	2010	UNData	5 - National Source (www.pioj.gov.jm) Jamaica Survey of Living Conditions; Moderate Poverty Line (individuals)
Jordan	2008	UNData	World Bank and National Source; Ministry of Planning and International Cooperation, Hashemite Kingdom of Jordan and the World Bank. 2009. Jordan Poverty Update.
Kenya	2005	UNData	Kenya National Bureau of Statistics: Basic report on Well-being in Kenya. Not comparable with prior series.
Kyrgyzstan	2010	UNData	Kyrgyz Republic PA 2012 - Input Kyrgyz Republic ER
Lao PDR	2008	UNData	World Bank Source; staff estimates
Lebanon	2007	IFAD	http://www.ruralpovertyportal.org/country/home/tags/lebanon
Liberia	2007	UNData	The World Bank http://data.worldbank.org/topic/poverty?display=graph
Madagascar	2005	UNData	Minsitere de l"economie, des Finances et du Budget, USAID and Institut National de la Statistique: Enquete Periodique Aupres des Menage 2005: Rapport Prinicpal. Comparable series since 1993.
Malawi	2010	UNData	Iintegrated Household Survey 2010-2011: Household Soio-Economic Characteristics Report. Comparable series since 1998.
Mali	2010	UNData	The World Bank
Mauritania	2008	UNData	Profil de la Pauvrete en Mauritanie 2008. Comparable series since 2000.
Mexico	2010	UNData	National Source (www.coneval.gob.mx/Programas) Encuesta Nacional de Ingresos y Gastos de los Hogares; Moderate Poverty Line (individuals)
Moldova	2010	UNData	Moldova: The Consequences of Several Shocks for Consumption and Poverty, Report No. 49019-MD
Mongolia	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Morocco	2007	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Mozambique	2009	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Nepal	2011	UNData	National Source; Poverty in Nepal, Nepal Living Standards Survey (NLSS-III, 2010-11), Central Bureau of Statistics (CBS).
Netherlands	2005	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Norway		Estimate	estimated based on iceland - called embassy of Norway, websearched and also checked national statistical bureau website - and could not find it
Pakistan	2006	UNData	National Source; Pakistan Social And Living Standards Measurement Survey 2005-06.
National Estimation of Poverty: Data year and data sources used			

Country	data year	data source	Description/website
Panama	2012	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Philippines	2009	UNData	National Source (www.nscb.gov.ph); all estimates for 2003, 2006 and 2009 comparable across time
Poland	2008	UNData	IBRD Program Document for a Proposed Loan, PL DPL III Program Document 15 Jan 2010
Portugal	2006	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Romania	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Saudi Arabia	2012	Saudi Arabia	According to official figures released by Consultative Assembly of Saudi Arabia (Shura), about 22 percent of Saudi citizens - at least 3 million citizens - live below the poverty line.
South Africa	2009	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Spain	2012	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Sri Lanka	2010	UNData	National Source; Poverty Indicators - Household Income and Expenditure Survey 2009/10 by Department of Census and Statistics. Ministry of Finance and Planning. ISSN 1391-4696 (May 2011)
Sweden	2012	Statistics Sweden	http://www.thelocal.se/39720/20120316/
Switzerland	2010	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Syria	2009	IFAD	http://www.ifad.org/operations/projects/regions/pn/factsheets/sy.pdf
Tajikistan	2012	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Tanzania	2007	World Bank Indicators	http://www.ruralpovertyportal.org/en/country/statistics/tags/tanzania
Thailand	2011	UNData	National Source; Office of National Economic and Social Development Board; Calculated from Thailand Household Socio-Economic Survey 2011.
Turkey	2009	UNData	National Source (www.turkstat.gov.tr); Press release - results of the 2009 poverty study, Jan 2011
Uganda	2009	UNData	Uganda Bureau of Statistics. Comparable series since 1992
USA	2010	Economic Policy Institute	State of Working America
Uzbekistan	2011	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Vietnam	2012	CIA World Factbook	https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html
Yemen	2005	UNData	World Bank and National Source; The Government of Yemen, The World Bank and the UNDP, 2007. Yemen Poverty Assessment, Volume 1

# Appendix G: Specific Indicator Issues

Materiality Thresholds

The indicators included in the EGI index were chosen as the best available measures for gender and the environment but not all the indicators included fulfilled the 'materiality threshold' for all the 72 countries included in the index. In other words, not all the indicators were country-relevant given the specificities of the issues being measured. This was the case for two of the three indicators included in the Ecosystem category: 'Critical Habitat Protection' and 'Higher Quality Forests' which we sourced from Yale's Environmental Performance Index (EPI). The Critical Habitat Protection indicator can only be scored for countries that have sites designated as 'critical' by the Alliance for Zero Extinction. Similarly, the 'Higher Quality Forests' indicator requires that a country have a minimum of 100 sq. km of forested land in order to receive a score. In the EGI index, countries that did not meet these minimum requirements for these two indicators were viewed as 'missing' variables.

Variable duplication

In an effort to cover women's involvement in formal decision-making and leadership roles as broadly as possible, the indicator on 'Women in Policy-Making Positions' was included, sourced from longitudinal data obtained from the IPU's Women in Parliament datasets. Also included was the 'Women Managers, legislators and senior officials' indicator based on the World Economic Forum's Global Gender Gap Index (GGGI) indicator of the same name. Since both indicators included women in elected office, there was concerned about excessive data overlap between the two measures. However, further testing of the indicators as shown in the scatterplot in Figure 26 revealed that they were not significantly correlated, as the two measures were measuring significantly different data. The GGGI team at the World Economic Forum further substantiated our analysis.

Figure 26: Scatterplot Comparison of Indicators on Women Managers and Women in Policy-making Positions
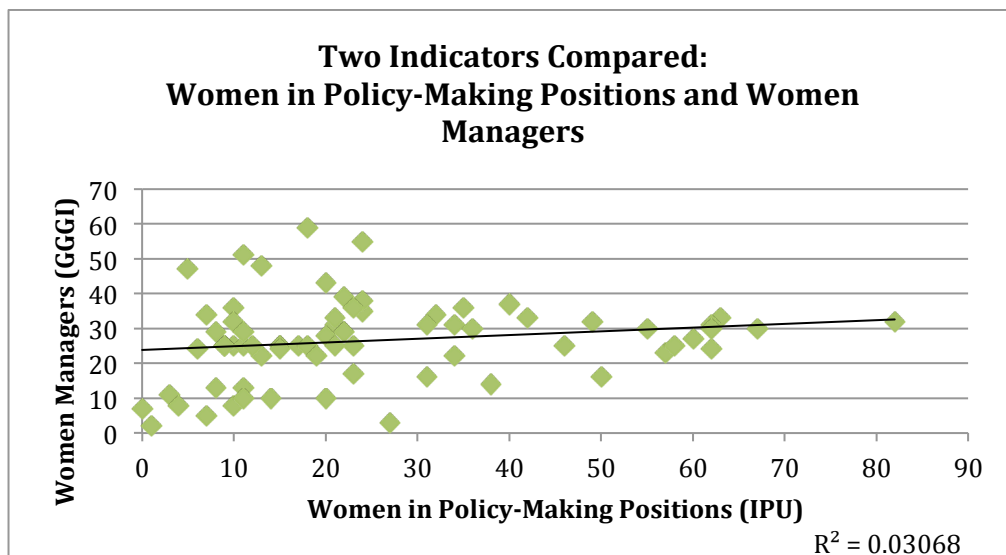
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World Bank (2012) Global Financial Inclusion Database (Findex) (http://econ.worldbank.org/)

JRC Statistical Audit on the Environment and Gender Index

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The Environment and Gender Index (EGI) attempts to model the multiple and to a great extent heterogeneous concepts underlying gender equality within the context of global environmental governance at the national scale worldwide. Unavoidably, this effort raises both conceptual and practical challenges. The conceptual challenges have been discussed in the main part of the EGI report. Herein, the focus is on the practical challenges related to the data quality and the methodological choices related to the combination of these data into a single number. The Econometrics and Applied Statistics Unit at the European Commission Joint Research Centre (JRC)[49] in Ispra (Italy) was invited to audit the EGI and to delve into the statistical properties of the index, so as to ensure the transparency and reliability of the EGI and to enable policymakers to derive more accurate and meaningful conclusions. A careful assessment of the EGI was guided by two key questions:

- Is the EGI structure statistically coherent?

- How do modelling assumptions influence the EGI ranking?

1. Is the EGI structure statistically coherent?

An earlier version of the EGI was assessed by the JRC in September 2013. Preliminary analysis aimed at identifying and dealing with indicators that either presented strong collinearity (correlation coefficient greater than 0.92) or behaved as noise in the overall framework (correlation coefficient not statistically significant at 99%) or pointed to the opposite direction from the EGI categories (negative correlation). The preliminary recommendations were taken into account in the final computation of the rankings by the EGI developing team in an iterative process with the JRC, which aimed at setting the foundation for a balanced index. The discussions herein focus on the final version of the EGI.

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[49] The JRC is being recognised as a reference centre by international policing bodies and organizations on multidimensional measures, and it has developed an in-house quality control process that involves both conceptual and methodological tests for the suitability and reliability of composite indicators and the development and presentation of scoreboards. The JRC statistical audits of composite indicators are available at http://composite-indicators.jrc.ec.europa.eu/

Data quality and availability

Statistical quality features of the EGI have been assessed through univariate and multivariate analyses, and global sensitivity analysis. Univariate analysis has been carried out at the variable level and focused on the presence of missing data, outliers, and potentially problematic variables due to highly asymmetric distributions (skewness). The data used in the JRC analysis were provided by the developers in [0, 1] scale. None of the 27 variables is affected by outliers that could potentially bias the results.

Other data quality tests focused on missing data. The dataset is characterized by excellent coverage: 97% data availability overall (27 indicators × 72 countries) and over 89% data availability for all countries (at least 24 out of 27 variables). Data coverage per EGI category is also very good or excellent for most countries, with the exception of four countries that miss half or more indicators in a given category. These are Benin, Iceland and Syria in the *Ecosystem* category (missing 2 out of 3 indicators) and France in the *Country reported activities* category (missing 2 out of 4 indicators). Hence, these category scores for the aforementioned countries should be interpreted with caution. Nevertheless, as we discuss below, the impact of missing data at the EGI scores is practically negligible for those four countries.

A further data quality issue relates to the treatment of missing values. The EGI developing team opted not to impute missing data, but instead to calculate country scores per category by a simple arithmetic average of available normalised variable scores for a given country. Although this approach can be a good starting point, it has notable shortcomings, as, in essence, it implies replacing missing variable scores per country with the average of the available variable scores for the given country. We tested the implications of "no imputation" versus the Expectation-Maximization method and discuss this below in the second part of the assessment, together with the other modeling assumptions.

Statistical dimensionality and grouping of variables

Principal component analysis (PCA) was used within and across the six EGI categories to assess to which extent the conceptual framework is confirmed by statistical approaches and to identify eventual pitfalls. Overall, the analysis confirms the EGI structure, as within each of the six categories a single latent factor is identified, which captures between 48.1% (*Country reported activities* category) up to 71.8% (*Governance* category) of the total variance in the underlying indicators. A more detailed analysis of the correlation structure within and across the six EGI categories confirms the expectation that the indicators are more correlated to their own category than to any other category and all correlations are statistically significant and positive. Hence, no re-allocation of the indicators to other categories is needed. Furthermore, there is no strong collinearity (all bivariate correlation coefficients between variables are well below 0.85) within any of the EGI categories, which suggests that there is no double counting of information.

PCA results across the six EGI categories suggest that there are two latent dimensions. The first one captures 52% of the variance and is described by *Livelihood*, *Gendered rights and participation*, *Governance*, *Gendered education and assets* and *Country reported activities*. The second dimension captures 20.5% of the variance and is described by *Ecosystem* alone. Thereafter,

the information provided by *Ecosystem* category is not properly captured by the overall EGI. What is worthy reflecting further on the EGI structure is the negative association between *Country reported activities* and either *Livelihood* or *Gendered education and assets* (r = -0.5 in both pairs). The *Country reported activities* category does not have a statistically significant association to any of the three remaining categories. Thereafter, the information provided by the *Country reported activities category* is also not properly captured by the overall EGI. The developing team is already aware of these two remarks. Because of their conceptual relevance to the phenomenon being measured these two categories (*Ecosystem* and *Country reported activities*) are included in the EGI. Yet, the developing team has opted to assign 10% weight to each of these two categories compared to the 20% weight assigned to the each of the remaining four categories. As discussed next, this is a good compromise solution because the nominal weights assigned to the six categories do reflect the importance of the categories in describing the variation in the EGI scores.

Nominal weights and Main effects

Global sensitivity analysis has been employed in order to evaluate a category's contribution to the variance of the EGI scores. The consideration made by the developing team is that four of the EGI categories have similar importance in the overall EGI and each of these four categories is more important with respect to either of the remaining two categories. Our tests focused herein on identifying whether the EGI is statistically well-balanced in its categories under the above consideration. There are several approaches to test this, such as eliminating one category at a time and comparing the resulting ranking with the original ranking, or using a simple (e.g., Pearson or Spearman rank) correlation coefficient. A more appropriate measure aptly named 'main effect' (henceforth S_i) has been applied here, also known as correlation ratio or first order sensitivity measure (Saltelli et al., 2008). In applying this measure to several case studies on composite indicators, Paruolo et al. (2013) argue that the suitability of the Pearson's correlation ratio as a measure of the importance of variables in an index is four-fold: (a) it offers a precise definition of importance that is 'the expected reduction in variance of the composite indicator that would be obtained if a variable could be fixed', (b) it can be used regardless of the degree of correlation between variables, (c) it is model free, in that it can be applied also in non-linear aggregations, and finally (d) it is not invasive, in that no changes are made to the composite indicator or to the correlation structure of the indicators.

Estimating the S_i's for the six EGI categories, results are reassuring: the four categories on *Livelihood*, *Gendered rights and participation*, *Governance*, and *Gendered education and assets* are more important compared to *Ecosystem* and *Country reported activities* in classifying countries across the EGI, though the *Gender rights and participation* is slightly less important than the other three categories (Table 1). In fact, the S_i value for *Gender rights and participation* is 0.43, whilst those for the other three categories are close to 0.80. Instead, the S_i values for *Ecosystem* and *Country reported activities* are much lower (S_i=0.24).

These results suggest that the weighting scheme selected by the developing team has indeed led to the desired outcome on the importance of the categories in classifying countries in the EGI. Overall, the three categories on *Livelihood*, *Governance* and *Gendered education and assets* are "effectively" three times more important in the EGI framework than either the *Ecosystem* or

Country reported activities; the *Gendered rights and participation* is twice more important than either the *Ecosystem* or *Country reported activities.*

Table 1. Importance measures for the six EGI categories

EGI categories	Importance measures or Main Effects (Si)	Ratio of Main Effects (wrt Ecosystem)	Nominal Weights
Livelihood	0.76	3.2	20%
Ecosystem	0.24	1.0	10%
Gender rights and participation	0.43	1.8	20%
Governance	0.80	3.4	20%
Gendered education and assets	0.80	3.4	20%
Country reported activities	0.24	1.0	10%

Source: Saisana and Weziak-Bialowolska, European Commission Joint Research Centre, 2013.

Note: The Si values are the kernel estimates of the Pearson correlation ratio, as in Paruolo et al., (2013).

2. How do modelling assumptions influence the EGI ranking?

Impact of modelling assumptions on the EGI results

Every country score on the EGI depends on modelling choices: six-category structure, selected variables, imputation or not of missing data, normalization, weights, aggregation method, among other elements. These choices are based on expert opinion (e.g., selection of variables), or common practice (e.g., min-max normalisation in the [0, 1] range), driven by statistical analysis (e.g., unequal weights for the six categories) or simplicity (e.g., no imputation of missing data). The robustness analysis performed by the JRC aims at assessing the simultaneous and joint impact of the main modelling choices on the rankings, and thus to complement the EGI ranks with error estimates stemming from the unavoidable uncertainty in the choices made. The data are assumed to be error-free since potential outliers and eventual errors were corrected during the computation phase.

The robustness assessment of the EGI was based on a combination of a Monte Carlo experiment and a multi-modelling approach, following good practices suggested in the composite indicators literature (Saisana *et al.*, 2005; Saisana *et al.*, 2011). The assessment dealt three issues: missing data, category weights, and the aggregation formula. The aim of this type of assessment is to anticipate potential, and legitimate, criticism that the EGI country ranks have been calculated under conditions of certainty, whilst this is certainly not the case (neither in any other multidimensional measure).

The Monte Carlo simulation related to the issue of weighting and comprised 1,000 runs, each corresponding to a different set of weights of the six categories, randomly sampled from continuous uniform distributions centered in the reference values of weights. The choice of the range of the variation in weights was driven by two opposite needs: the first

one is to ensure a wide enough interval to have meaningful robustness checks (about ±25-30% of the reference value) and the second one to respect the rationale of the EGI developing team that four of the six categories are more important compared to the other two. Given these considerations, limit values of uncertainty intervals for the category weights are: 15-25% for *Livelihood, Gendered rights and Participation, Governance*, and *Gender education and assets* and 7-13% for *Ecosystem* and *Country reported activities* (see Table 2).

The EGI developing team, for transparency and ease of replicating the results by interested readers, opted not to estimate the few missing data (3% in the 27 × 72 dataset). The 'no imputation' choice, which is common in similar contexts, might encourage countries not to report low data values.[50] To overcome this limitation, the JRC imputed missing data using the Expectation Maximization (EM) algorithm[51]. This method has worked efficiently in this dataset, as it gave the lowest cross-validation error compared to other popular and simpler methods (e.g. substitution by variable median or mean, nearest neighbour).

Regarding the aggregation formula, decision-theory practitioners have challenged the use of simple arithmetic averages because of their fully compensatory nature, in which a comparative high advantage on a few variables can compensate a comparative disadvantage on many variables (Munda, 2008). Hence, instead of building the EGI as the weighted arithmetic average of the six categories, we considered here the weighted geometric average instead.[52] The main feature of the geometric average, which renders it a legitimate alternative formula to the arithmetic average in summarising a concept such gender equality within the context of global environmental governance, is that it is a partially compensatory approach that rewards countries with balanced profiles along the six EGI categories and motivates them to improve in those categories in which they perform poorly, and not just in *any* category (which is the case with the arithmetic average).

A total of 4,000 simulations for the EGI were run: four models based on the combination of no imputation versus EM imputation, and arithmetic versus geometric average, and 1,000 simulations per model to reflect the uncertainty in the categories' weights (see Table 2 for a summary of the uncertainties considered in the EGI).

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[50] Note that in arithmetic averages, as it is the case of the EGI categories, the 'no imputation' choice is equivalent to replacing missing values with the average of the available (normalized) data within each category.

[51] The Expectation-Maximization (EM) algorithm is an iterative procedure that finds the maximum likelihood estimates of the parameter vector by repeating two steps (Little and Rubin, 2002). The expectation E-step: Given a set of parameter estimates, such as a mean vector and covariance matrix for a multivariate normal distribution, the E-step calculates the conditional expectation of the complete-data log likelihood given the observed data and the parameter estimates. The maximization M-step: Given a complete-data log likelihood, the M-step finds the parameter estimates to maximize the complete-data log likelihood from the E-step. The two steps are iterated until the iterations converge.

[52] In the geometric average, categories are multiplied as opposed to summed in the arithmetic average. Category weights appear as exponents in the multiplication. All category scores were greater than 0, hence no additional rescaling was done to avoid zero values that would have led to zero geometric averages.

Table 2. Sources of uncertainty in the EGI: weights, missing data, aggregation

|	*Reference*	**Alternative**
I. Uncertainty in the treatment of missing values at the variable level	no estimation of missing data	Expectation Maximization (EM)
II. Uncertainty in the aggregation formula at the category level	Weighted arithmetic average	Weighted geometric average
III. Uncertainty in the weights at the category level	Reference value for the weight	Distribution assigned for robustness analysis
Livelihood	0.2	U[0.15,0.25]
Ecosystem	0.1	U[0.07,0.13]
Gendered rights and participation	0.2	U[0.15,0.25]
Governance	0.2	U[0.15,0.25]
Gendered education and assets	0.2	U[0.15,0.25]
Country reported activities	0.1	U[0.07,0.13]

Source: Saisana and Weziak-Bialowolska, European Commission Joint Research Centre, 2013.

Sensitivity analysis results

Sensitivity analysis has been used to identify which of the modelling assumptions have the highest impact on country ranks, and thereafter to help focus eventual discussions on those uncertainties. Figure 1 presents the box plots of ranking shifts for the three assumptions tested. The median shift in rank across all simulations is the red segment. The vertical boxes show the 75% of the distributions (percentiles P25 and P75 are the horizontal edges of the boxes) and vertical lines extend from minimum to maximum.

One of the three assumptions tested is highly influential: the choice of the aggregation formula at the category level. In fact, if geometric averaging were used instead of arithmetic averaging, the most pronounced impact would be for eleven countries shifting between 10 and 14 positions, whilst Uzbekistan would lose 27 positions (its score would go down from 0.51 to 0.34). Nevertheless, under this assumption, half of the countries would move less than five positions. Instead, the EGI is sufficiently robust to both the choice of imputing versus not imputing the 3% missing values in the dataset, and to small perturbations in the category weights: 75% of the countries shift one position or do not move at all.

Figure 1. Sensitivity analysis: Impact of assumptions on the EGI ranks
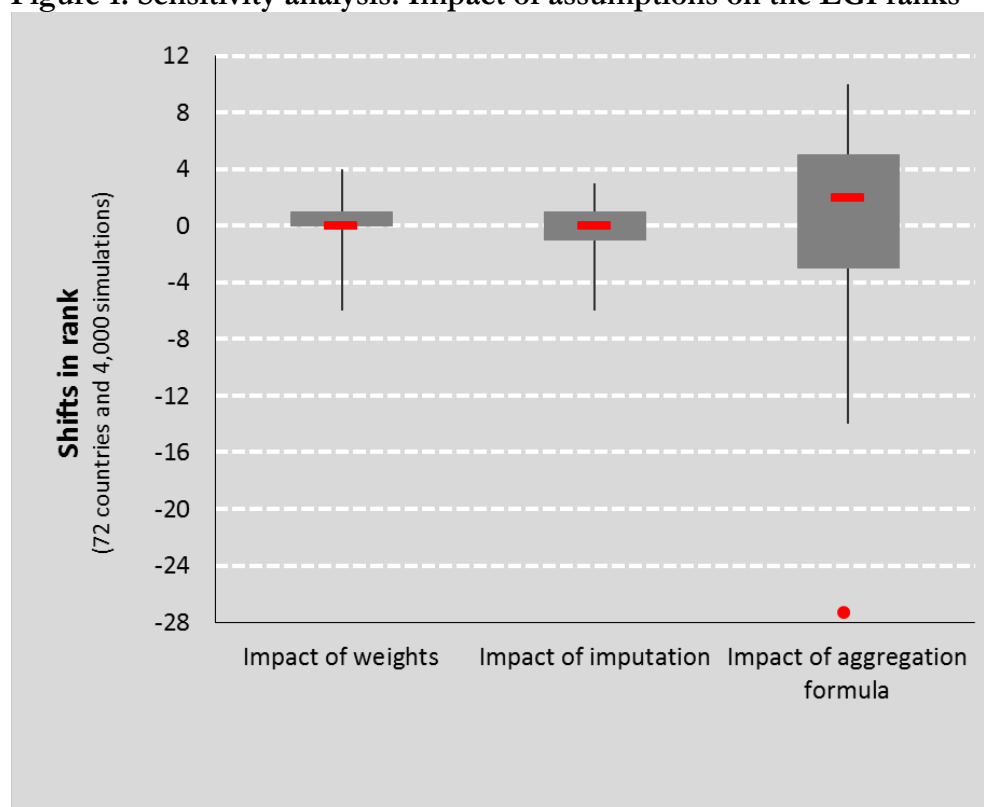
Source: Saisana and Weziak-Bialowolska, European Commission Joint Research Centre, 2013.

The EGI developing team opted for conceptual reasons to use the arithmetic averaging formula at the category level. The results of sensitivity analysis confirm on one hand the importance of the choice of the aggregation formula at the category level, and on the other the robustness of the majority of the EGI ranks to both the estimation of missing data and to small variations in the category weights.

In the following, we take for granted the aggregation formula at the category level and discuss in more detail the uncertainty in the remaining two sources: imputation and category weights.

Uncertainty analysis results

The main results of the robustness analysis are shown in Figure 2 with median country ranks and 90% confidence intervals computed across the 2,000 Monte Carlo simulations accounting for the imputation versus no imputation of missing data and the 1,000 simulations per model. Countries are ordered from best to worst according to their reference rank (black line), the dot being the median rank. For full transparency and information, Table 3 reports the EGI country ranks (and scores) together with the simulated intervals (90% of the 2,000 scenarios) in order to better appreciate the robustness of the results to the imputation and to small variations in the category weights. All published EGI ranks lay within the simulated intervals, and these are narrow enough for the vast majority of countries to allow for meaningful inferences to be drawn.

More specifically, if one considers the median rank across the simulated scenarios as being representative of these scenarios, then the fact that the EGI rank is close to the median rank (less than 2 positions away for 95% of the countries) suggests that the EGI is a suitable summary measure.

Furthermore, the narrow confidence intervals for the majority of the countries' ranks (less than ± 2 positions for almost 70% of the countries) imply that the EGI ranks are also, for most countries, robust to changes in the pillar weights and the imputation.

Figure 2. Robustness analysis (EGI rank vs. median rank, 90% confidence intervals)
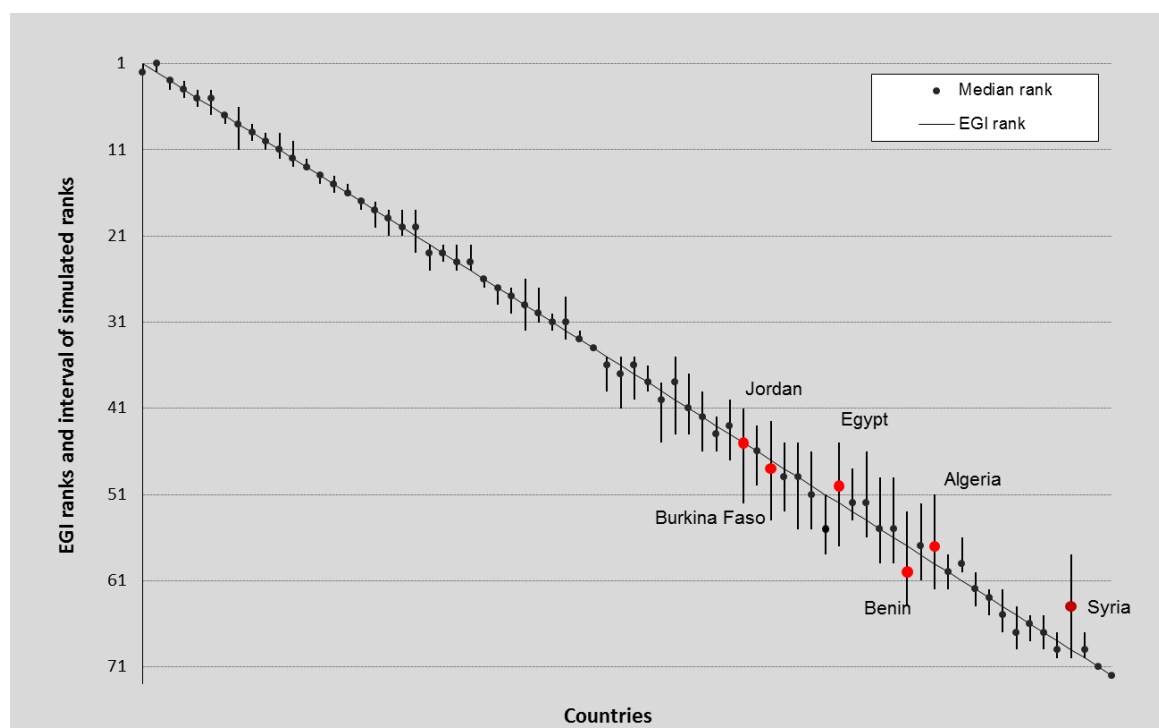
Source: Saisana and Weziak-Bialowolska, European Commission Joint Research Centre, 2013.

Notes: The Spearman rank correlation between the median rank of the simulations and the EGI rank is 0.998. Countries with relatively wide intervals –more than 11 positions– across 2,000 simulations related to estimation of missing data and random category weights are flagged.

Table 1. Country ranks & scores and 90% intervals for the EGI

Country	EGI Rank	Interval rank	Interval score	Country	EGI Rank	Interval rank	Interval score
Iceland	1	[1, 2]	[0.80, 0.84]	Armenia	37	[35, 40]	[0.51, 0.55]
Netherlands	2	[1, 2]	[0.81, 0.85]	Sri Lanka	38	[36, 39]	[0.51, 0.54]
Norway	3	[3, 4]	[0.79, 0.84]	Uzbekistan	39	[38, 45]	[0.48, 0.54]
Sweden	4	[3, 5]	[0.79, 0.83]	Fiji	40	[35, 44]	[0.49, 0.55]
France	5	[4, 6]	[0.78, 0.83]	Ghana	41	[37, 44]	[0.50, 0.52]
Finland	6	[4, 7]	[0.78, 0.83]	Lebanon	42	[39, 46]	[0.48, 0.53]
Canada	7	[7, 8]	[0.77, 0.82]	Gabon	43	[42, 46]	[0.48, 0.50]
Spain	8	[6, 11]	[0.77, 0.81]	Tanzania	44	[40, 47]	[0.48, 0.51]
Denmark	9	[8, 10]	[0.76, 0.81]	Jordan	45	[41, 52]	[0.46, 0.52]
Australia	10	[9, 11]	[0.76, 0.80]	India	46	[43, 50]	[0.47, 0.49]
Switzerland	11	[9, 12]	[0.74, 0.80]	Burkina Faso	47	[43, 54]	[0.46, 0.50]
Poland	12	[10, 13]	[0.74, 0.79]	Tajikistan	48	[45, 53]	[0.46, 0.49]
Portugal	13	[12, 13]	[0.73, 0.78]	Morocco	49	[45, 55]	[0.45, 0.49]
U.S.A	14	[14, 15]	[0.71, 0.76]	Kenya	50	[46, 55]	[0.45, 0.48]
Greece	15	[14, 16]	[0.71, 0.75]	Laos	51	[51, 58]	[0.43, 0.47]
Italy	16	[15, 16]	[0.70, 0.75]	Egypt	52	[45, 57]	[0.44, 0.50]
Panama	17	[17, 18]	[0.69, 0.72]	Nepal	53	[48, 54]	[0.45, 0.48]
South Africa	18	[17, 20]	[0.69, 0.70]	Liberia	54	[46, 56]	[0.45, 0.48]
Costa Rica	19	[18, 21]	[0.68, 0.71]	Mozambique	55	[49, 59]	[0.43, 0.47]
Argentina	20	[18, 21]	[0.66, 0.71]	Saudi Arabia	56	[49, 59]	[0.42, 0.48]
Mexico	21	[18, 23]	[0.66, 0.70]	Benin	57	[53, 64]	[0.40, 0.46]
Romania	22	[22, 25]	[0.64, 0.68]	Madagascar	58	[52, 61]	[0.42, 0.46]
Jamaica	23	[22, 24]	[0.65, 0.68]	Algeria	59	[51, 62]	[0.41, 0.47]
Brazil	24	[22, 25]	[0.64, 0.67]	Bangladesh	60	[58, 62]	[0.41, 0.44]
Mongolia	25	[22, 25]	[0.64, 0.67]	Gambia	61	[56, 60]	[0.43, 0.44]
Philippines	26	[26, 27]	[0.59, 0.62]	Uganda	62	[60, 64]	[0.40, 0.42]
Georgia	27	[27, 29]	[0.57, 0.62]	Cameroon	63	[62, 65]	[0.39, 0.41]
Viet Nam	28	[27, 30]	[0.57, 0.61]	Mali	64	[62, 67]	[0.38, 0.41]
Thailand	29	[26, 32]	[0.56, 0.61]	Congo	65	[64, 69]	[0.36, 0.40]
Turkey	30	[27, 31]	[0.56, 0.61]	Ethiopia	66	[65, 68]	[0.37, 0.39]
Moldova	31	[30, 32]	[0.56, 0.60]	Pakistan	67	[65, 69]	[0.37, 0.39]
Dominican Rep	32	[28, 33]	[0.56, 0.59]	Burundi	68	[67, 70]	[0.35, 0.39]
Indonesia	33	[32, 33]	[0.54, 0.58]	Syria	69	[58, 70]	[0.35, 0.44]
China	34	[34, 34]	[0.53, 0.57]	Mauritania	70	[67, 70]	[0.35, 0.38]
Kyrgyzstan	35	[35, 39]	[0.51, 0.55]	Yemen	71	[71, 71]	[0.30, 0.33]
Malawi	36	[35, 41]	[0.52, 0.54]	D.Rep. Congo	72	[72, 72]	[0.25, 0.28]

Source: Saisana and Weziak-Bialowolska, European Commission Joint Research Centre, 2013.

Note: Simulations (2,000) relate to estimation of missing data and random category weights.

3. Conclusions

The EGI developing team invited the JRC to delve into the statistical properties of the index, so as to ensure the transparency and reliability of the index and to enable policymakers to derive more accurate and meaningful conclusions.

The JRC analysis suggests that the six EGI categories are statistically coherent, as within each of them a single latent dimension is identified and all variables are statistically significant in determining the variation of the respective category scores. Furthermore, the variables are more correlated to their own category than to any other, thus no re-allocation of variables to other categories is needed. The absence of strong collinearity suggests that there is no double counting of information in the EGI framework.

The tests on the main effects for the six EGI categories are offering reassuring results. The four categories on *Livelihood*, *Gendered rights and participation*, *Governance, and Gendered education and assets* are indeed more important compared to *Ecosystem* and *Country reported activities* in classifying countries across the EGI, though the *Gender rights and participation* is slightly less important than the other three categories. A suggested refinement for future versions of the EGI relates to a more careful interpretation of the documentation based on which the *Country reported activities* category is formulated. The underlying reason for refinement is the negative association between *Country reported activities* and either *Livelihood* or *Gendered education and assets* (r = -0.5 in both pairs) and the random association of this category to any of the three remaining categories in the EGI framework. Thereafter, despite being included in the EGI framework, the information provided by the *Country reported activities category* is not properly captured by the overall index. The *Ecosystem* category is also poorly associated to the message provided by the other categories in the EGI. The developing team is already aware of these two remarks and is considering the ways to alleviate these issues in the next version of the index. In the meantime, the current unequal weighting scheme adopted by the EGI team is a good compromise solution.

Overall, the EGI country ranks are fairly robust to methodological assumptions related to the estimation of missing data and to small variations in the weights assigned to the six categories. More specifically, the EGI rank is close to the median rank (less than 2 positions away for 95% of the countries) and the confidence intervals for the majority of the country ranks are narrow enough to allow for meaningful inferences to be drawn regarding the country benchmarking (less than $\pm$ 2 positions for almost 70% of the countries).

Despite the many challenges inherent in this exercise, from defining the concept itself to rendering it analytically tractable, the Environment and Gender Index seems to be a tool in the right direction. The added value of the EGI, which was developed using international quality standards and tested using state-of-the-art statistical analyses, lays in its ability to summarize different aspects of gender equality within the context of global environmental governance in a more efficient and parsimonious manner than what is possible with a collection of relevant indicators taken separately. Nevertheless, the validity of the EGI does not merely depend on its statistical soundness but also on its acceptance by the community of peers. Our general suggestion is to consider EGI as a useful step to inform research policymakers in a learning-by-comparing exercise, which is what benchmarking is about, but also as a preliminary step in the ongoing debate on how to measure gender equality within the context of global environmental governance. In this respect, the EGI should remain open to constructive criticism and could be refined within two of its six categories, *Ecosystem* and *Country reported activities category* categories. This refinement would be instrumental in bringing the EGI to its full potential.

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