

Women in Environmental Decision Making: Case Studies in Ecuador, Liberia, and the Philippines 🇪🇨 🇱🇮 🇵🇭

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Acronyms

ADB	Asian Development Bank
BFAR	Bureau of Fisheries and Aquatic Resources (Philippines)
CBD	United Nations Convention on Biological Diversity
CCA	Climate Change Adaptation
CCC	Climate Change Commission (Philippines)
CI	Conservation International
CONAMU	National Council for Women (Ecuador)
COP	Conference of the Parties
CSO	Civil Society Organization
CTI	Coral Triangle Initiative
DA	Department of Agriculture (Philippines)
DAR	Department of Agrarian Reform (Philippines)
DENR	Department of Environmental and Natural Resources (Philippines)
DOE	Department of Energy (Philippines)
EGI	Environment and Gender Index
ENGO	Environmental Nongovernmental Organization
EPA	Environmental Protection Agency (Liberia)
EPI	Environmental Performance Index
FAO	Food and Agriculture Organization of the United Nations
FLACSO	Latin American Faculty of Social Sciences
FUNAN	Antisana Foundation

GAD	Gender and Development (Philippines)	NIPAS	National Integrated Protected Area System (Philippines)
GEF	Global Environmental Facility	PCW	Philippine Commission on Women
GGG	Global Gender Gap Index	PPFD	Philippine Plan for Gender-Responsive Development
GGO	IUCN Global Gender Office	PPGD	Philippine Strategy for Sustainable Development
GII	Gender Inequality Index	SIGI	Social Institutions and Gender Index
IPCC	International Panel on Climate Change	TWCW	Technical Working Committee on Women (Liberia)
IUCN	International Union for Conservation of Nature	UF	University of Florida
MAE	Ministry of the Environment (Ecuador)	UNCCD	United Nations Convention to Combat Desertification
MAGAP	Ministry of Agriculture, Livestock, Aquaculture and Fisheries	UNDP	United Nations Development Programme
MEER	Ministry of Electricity and Renewable Energy (Ecuador)	UNEP	United Nations Environment Programme
MERGE	Managing Ecosystems and Resources with Emphasis on Gender	UNFCCC	United Nations Framework Convention on Climate Change
MOA	Ministry of Agriculture (Liberia)		
MoGD/MGD	Ministry of Gender and Development (Liberia)		
MOLME	Ministry of Lands, Mines and Energy (Liberia)		
MPA	Marine Protected Area		
MRNNR	Ministry of Nonrenewable Natural Resources (Ecuador)		
NGO	Nongovernmental Organization		
NGP	National Gender Policy (Liberia)		

Consultation Participants

The following individuals guided final country selection and provided contextual information for each country on the state of women in environmental decision making. Their comments helped formulate the structure and content of each country profile, highlighted key issues and challenges, and provided recommendations to advance the role of women in environmental decision making.

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Introduction

Across the globe, women are heavily involved in the environmental sector, including in agriculture, fisheries, forestry, and in adapting to and mitigating climate change. However, women's participation and representation in decision-making processes that pertain to their and their families' environmental well-being are often restricted.

Traditional gender roles reflecting men's participation in commercial spheres and women's in domestic spheres have disadvantaged women in their ability to engage in environmental decision making. Men, more often than women, use natural resources commercially, which contributes to the formal economy, making men's activities more visible to policy makers, economists, scientists, and planners. Because of men's dominant presence in the commercial sphere, historically, early anthropologists, ecologists, and environmentalists paid little attention to the gender dimensions of knowledge systems pertaining to the environment (Aguilar, 2002).

Women manage natural resources on a daily basis in their various roles, including as farmers, seafood harvesters, and household providers, and therefore carry unique and critically important knowledge about the environment (FAO, 2014, 2013, & 2011). Typically, women are responsible for subsistence food harvesting, e.g., growing crops, collecting edible forest plants or gleaning near shore for shellfish (FAO, 2014, 2013, and 2011). Women also provide other services for the family, such as collecting fuelwood and water, for which rural girls and women walk substantial distances in sometimes unsafe conditions (FAO, 2014).

However, even today, despite their daily interaction with and dependence on natural resources, women have less access to and control over them than men. For example, in fisheries, due to the nature of women's work in nearshore capture, processing, and marketing seafood rather than offshore fishing, the participation of the nearly 90 million women worldwide (47% of the fisheries workforce) remains informal and invisible (FAO, 2013). The under-acknowledgement of women's roles in natural resource management has not only led to an undervaluation of the domestic sphere and unpaid work, but also an underestimation of the economic and societal benefits that women provide to the environmental sector.

Encouraging women's fair and equitable direct access to, benefits from, and governance of natural resources, is a globally agreed priority and the subject of many national and international mandates. Not only

does women's equitable participation and representation empower women and uphold commitments to gender equality and women empowerment, but it makes for better development and sustainability outcomes. Moreover, family and community livelihood is positively affected when women have their own resources and hold decision-making authority regarding those resources.

In 2014, Conservation International (CI), an early supporter and contributor to the 2013 pilot Environment and Gender Index (EGI), collaborated with IUCN's Global Gender Office (GGO) to produce case studies about the state of women in environmental decision making in three countries: Ecuador; Liberia; and the Philippines. The case studies examined: 1) how each country ranks on various gender equality indices, including the EGI; 2) how well women are represented in international delegations; and 3) how many top positions women hold in environmental nongovernmental organizations (ENGOS) and environmental government ministries. The case studies are to serve as a tool for expanding and deepening EGI data and analysis.

Key Findings **Key findings from the countries include:**

- In Ecuador and the Philippines, women's involvement in community-level processes regarding the environment varies by region;
 - In some areas, women and girls have very limited exposure to decision-making processes, women and girls are less educated, and stronger patriarchal roles prevent women from engaging in resource management discussions.
- The Philippines appears to be the strongest performer from a policy standpoint; the Philippines has been a leader, especially within Southeast Asia, for enacting gender-sensitive policies and other policies pertaining to women's rights since the late 1980s;
 - However, in many areas of the Philippines, gender quotas and women's engagement in resource management circles appear to be strong on paper, but there are inconsistencies in some areas/sectors in upholding those policies and gender quotas for women's participation.
- Ecuador has also enacted gender-sensitive policies in environmental management, however the implementation of these appears to be limited, especially given the lack of gender expertise among the staff in the environmental sector.
- Liberia appears to be trailing behind both Ecuador and the Philippines in environmental protection and conservation as a whole, as well as the systematic engagement of women in this sector;

- However, Liberia is beginning to make a conscious effort to involve women in decision making in profound ways, with a recent high percentage of female environmental ministers and an active civil society;
- Liberian women's largest struggle is in rural areas, where women have less access to education, less experience with technical environmental concepts, and thus lower participation rates in environmental decision making.
- All of the research and interviews indicate that women in all three countries face, to varying degrees, patriarchal/sociocultural stereotypes that impede women's involvement in decision making.
- While women may not have opportunity to develop technical capacity or benefit from technical training, their local or traditional knowledge appears to be undervalued.

Moving Forward

Targeted recommendations are included in each case study; those recommendations include:

- Although a multitude of policies are in place, gaps in implementation remain;
- Empowering women in the environmental sector will require a cultural shift for all countries;
 - Women need to be seen as a partner both in the home and in the community, as well as in economic and political spheres;
- Women, particularly at the community level, need more exposure and access to trainings, education, and financial resources;
- Men and men's groups need to be actively engaged to understand the benefits of a gender responsive approach and the full engagement of women;
- There is a need for better allocation of funds for gender-related work;
 - Capacity building of individuals working in the environmental sector to address gender in their projects is indispensable;
- Awareness-raising about the importance of including women, and promoting their involvement at all levels of decision making, is essential;
- Establishing women's groups may help to empower women from neighboring communities;
 - For example, sharing stories and struggles within women's groups may help encourage other women to participate in formal environmental decision making processes, spread capacity, and promote equality between sons and daughters within the family.

- Information needs to be shared to demonstrate that there is a higher level of success in environmental projects when women are involved in decisions concerning resource use and access;
- Opportunities to advance women's careers at higher levels in the environmental sector need to be addressed; upward mobility appears to be restricted, which seems to be associated with cultural stereotypes;
- There is a need for more local level sex-disaggregated data for a richer comparison of women at the national and subnational context; and
- A lack of empirical studies on the implications of women's participation in environmental decision making at all levels remains for the three countries and beyond; more rigorous local-level research examining the gender dimensions of resource use and natural resource management is needed in order to promote and advance gender work.

Objectives of the Study

The four-fold goal of the EGI is to measure implementation of global agreements, promote transparency and accountability at the national level, improve information, and empower and aid countries to take steps toward the promotion of gender equality in relation to the environmental sector. Under this umbrella, national level analysis in the three selected countries aims to contribute to a number of important objectives, specifically:

1. Analyze the state of gender equality and women's empowerment in environment-related sectors;
2. Identify institutional, policy, and other bottlenecks that women face in environment-related sectors;
3. Highlight best practices and facilitate input and engagement with diverse stakeholders; and
4. Develop and disseminate context-specific recommendations to encourage improved action and data collection.

Audience

As a unique source of national data, as well as regional and international trends, the EGI is compelling and useful for a wide range of audiences. The country case studies aim to primarily serve the interests of governmental organizations (e.g., environment and women's ministries) and civil society, particularly environmental and women's organizations, in Ecuador, Liberia, and the Philippines. The case studies reveal performance trends and may help to guide future priorities for implementation of gender commitments and programmes, including those of the researching/commissioning organizations (i.e., IUCN and CI.) Stakeholders may have the opportunity to view otherwise unknown information, review actions needed within each country to advance women's representation in decision making, and identify comparisons of effective policies or practices amongst each other.

Methodology

Data and Country Selection

Various criteria were carefully considered to select countries for these in-depth case studies. First, IUCN and CI were interested in selecting culturally and regionally diverse countries that could potentially demonstrate various lessons for the international community. Countries in which either or both organizations have existing relationships at the ministry level was essential, as was a governance situation that was adequate to support detailed research. Relationships with civil society were also important, as those stakeholders offered important access to information and analysis. Finally, as some countries are more data rich than others, it was essential to select countries with adequate access to the proper data. Based on these key criteria, Ecuador, Liberia, and the Philippines were chosen.

Variable and Indicator construction

Quantitative indicators were selected that describe women's roles in environmental decision making. Many of these indicators described women's involvement at the national level policy context (i.e., female ministers of environment, women's participation in international environmental delegations, female board members of national environmental nongovernmental organizations [ENGOS], etc.) rather than community-based processes due to a lack of data and information, as well as time. The ENGOS considered in this analysis were selected based upon their relative influence and size at the national level, according to consultation with participants in each country. Unfortunately, while identified as important early on, other indicators that described the amount of investment into gender and the environment were dropped due to the lack of availability of information (Please refer to Appendix A for a full list of indicators).

Within the national policy context, quantitative indicators were selected to ensure representativeness of women's involvement in the major sectors of the environmental sector: civil society; government; and international environmental delegations. To complement the quantitative indicators, qualitative data were collected through the use of interviews and literature review.

The following is a full list of activities that were undertaken for national analysis and country profiles:

- Literature review on gender and environment data/research, as well as policy and programming framework, for each country;
- In-depth analysis of country reports to international environmental and women's conventions;
- Skype/Phone consultations with representatives of CI and IUCN in-country offices, national and subnational government departments, NGOs, academics, bilateral and multilateral institutions, amongst others;
- Mapping of key institutions and stakeholders;
- In-country interviews and information-gathering;
- Informal information-sharing and validation meeting at end of country research; and
- Drafting of country profiles in consultation with stakeholders.

Country Summaries





Background

Ecuador, an ecologically and culturally diverse country, is situated in northwestern South America, bordered by Colombia to the north, Peru to its southeast and the Pacific Ocean to its west. It consists of four distinct regions: El Oriente (Amazon Basin region), La Sierra (highlands including the Andes Mountain Range), La Costa (coastal region), and the Galapagos Islands (off the Pacific coast) (Duffy et al., 2012). With a population of 15.7 million as of 2013, Ecuador's economy heavily relies on its natural resources, tourism revenue, and agricultural products (World databank, 2014). Rich in natural biodiversity, Ecuador is known as one of the leading countries in Latin America for environmental protection (Larrea et al., 2005). However, the country's high rates of poverty threaten the sustainability of its resources (Larrea et al., 2005).

In terms of gender, Ecuador has made significant progress since the 1990's in recognizing women's rights and government policies on gender issues (CONAMU, 2004). Many of these policies established under Ecuador's constitution tend to focus on women's rights as they pertain to women's labor (equal pay for equal work), political participation, sexual reproduction, domestic violence, equal access and opportunity to ownership of resources, and gender budgeting (Quesada-Aguilar et al., 2013; CONAMU, 2004). However, despite legislation progress, in daily life, Ecuadorian women are subject to severe discrimination (CONAMU, 2004). Statistics have revealed that women and girls have lesser access than men and boys to basic social services, suffer pay discrimination, have limited roles in decision making, and suffer high rates of unreported domestic violence (CONAMU, 2004).

As in many societies around the world, a culture of male dominance is pervasive across multiple sectors of Ecuadorian society, which has depreciated women's voice and influence in resource decision making (Duffy et al., 2012; personal communication October 2014). Moreover, many Ecuadorian women are also victims of dual-discrimination, on the basis of not only their gender but their ethnic and cultural origin (CONAMU, 2004). Interviews emphasized that Mestizo women, Andean women, and Amazonian women experience varying degrees of discrimination (with Mestizo women typically suffering the most discrimination), which in turns affects the engagement of women in resource decision making.

Since the 1990s, there has been some initiative to link gender and environmental issues (Quesada-Aguilar et al., 2013). In 1995, for example, a regional effort to train individuals primarily from civil society organizations (CSOs) to address gender in natural resource management was initiated with the programme on Managing Ecosystems and Resources with Emphasis on Gender (MERGE) (Arroyo et al., 2002). Coordinated by the University of Florida (UF), MERGE was initiated to build capacity of various environmental professionals from CSOs working with communities in Ecuador, Peru, and Brazil. With funding from the MacArthur Foundation, together the Latin American Faculty of Social Sciences (FLACSO), MERGE-UF, and the Antisana Foundation (FUNAN) developed tools for research and training in gender analysis through a regional course entitled “Communities, Gender and Sustainable Natural Resource Management” (Arroyo et al., 2002). This effort was intended to help organizations working with communities to understand the importance of gender and carry out gender analysis in natural resource management at the community level (Arroyo et al., 2002).

Toward the end of 2002, the Inter-Institutional Forum on Gender and the Environment was formed and was reportedly working with the Local Environmental Management Directorate on defining guidelines for the incorporation of gender in decentralized environmental programmes (CONAMU, 2004). In 2009, Ecuador’s Ministry of Environment began incorporating a gender focus and gender sensitive indicators in environmental projects. However, despite these efforts, interviews revealed that within environmental organizations and institutions, there are challenges in addressing gender in environmental projects due to a lack of financial resources for gender work and a low awareness about the value of women’s participation in environmental management.

Results and Discussion

Index Performance

Ecuador performed well on the Environmental Performance Index (EPI), ranking 53 out of a total of 178 countries, and it ranks first among Liberia and the Philippines (Table 1.1; see Appendix B for further detail). Ecuador performed moderately well on the gender inequality indices, placing second (in relation to Liberia and the Philippines) in the Global Gender Gap (GGG) Index, Gender Inequality Index (GII) and Social Institutions and Gender Index (SIGI) (Table 1.1). Ecuador was not ranked in the 2013 Environment and Gender Index.¹

1. In the 2013 pilot phase of the EGI, 72 countries were included in the ranking. These were included based on availability of information at the time.

Table 1.1 Ecuador's ranking on gender equality and environmental indices

Index	Overall Rank	Case Rank (Out of 3 countries)
<i>Environment and Gender Index (EGI)</i>	**Ecuador not ranked**	--
<i>Global Gender Gap (GGG)</i>	21 out of 142	2
<i>Gender Inequality Index (GII)</i>	82 out of 187	2
<i>Social Institutions and Gender Index (SIGI)</i>	18 out of 86	2
<i>Environmental Performance Index (EPI)</i>	53 out of 178	1

**Women's
representation in
key environmental
positions**

Only a quarter (25%) of Ecuador's environmental ministers are women (Table 1.2; see Appendix B for a breakdown of ministries). There is a slightly higher percentage, 29%, of female Vice Ministers of Environment (2 out of 7 vice ministers). Within civil society, a select number of national NGOs were considered on the basis of influence and size. Of the eight major NGOs considered for Ecuador, only a quarter (25%) of NGO presidents/executive directors are women and about 32% of NGO board members are women (Table 1.2). However, this presents a small picture of women's representation in civil society in Ecuador. Some data regarding Ecuadorian NGO board membership and executive leadership were not accessible (see Appendix B for more information).

On a national level, it appears that higher levels of environmental decision making appear to be somewhat restricted for women in government and in civil society. While women are participating in government and civil society organizations, men continue to hold the majority of executive positions.

In the main international decision-making fora for environmental issues and sustainable development, specifically the so-called "Rio Conventions" on climate change, biodiversity and combatting desertification, as well as the financial mechanisms by which these and their programmes are funded, it appears that Ecuadorian women have greater representation, possibly a result of the level of technical

expertise among women in these sectors or specific initiatives of these processes to encourage gender balance. For international environmental decision making, the highest representation of women serving as government delegates was at the UNFCCC COP19, where 41% of delegates were women (Table 1.2). Across the UN Rio Conventions (UNFCCC COP19, UNCCD COP11, and CBD COP11), about 38% of government delegates were women (Table 1.2). Both Rio Convention Focal Points and Global Environmental Facility (GEF) Focal Points had an equal representation of women (Table 1.2).

It is noteworthy that women's participation was highest in international climate change negotiations (UNFCCC). This was also found to be the case for women in the Coral Triangle Initiative (CTI), a multilateral conservation initiative among six countries in the Coral Triangle region (Luna, 2014). Women in CTI climate change adaptation technical working groups and regional exchange discussions had an average participation rate of 40%, the highest across the CTI's environmental technical areas. Climate change adaptation is a relatively new field—compared to biodiversity, fisheries, desertification, forestry, and agriculture—entering the environmental management agenda sometime in the 1990s (Tol et al., 1998). Women may see climate change adaptation as an environmental area of opportunity to be involved, rather than attempting to enter other male-dominated environmental fields.

Table 1.2 Women's representation in key environmental positions across government, civil society, and international environmental delegations

Sector	Variable	% Women
Government	Ministers of Environment-related Sectors	25
	Vice-Ministers of Environment-related Sectors	29
Civil Society	Environmental NGO Presidents/ Executive Directors	25
	Environmental NGO Board Membership	32
International	UNFCCC COP19 Government Delegates	41
	UNCCD COP11 Government Delegates	33
	CBD COP11 Government Delegates	39
	Average Participation in Rio Conventions (UNFCCC, UNCCD, CBD)	38
	Rio Convention Focal Points	50
	GEF Focal Points	50

**Obstacles to Women's
Participation**

Interviews revealed that one major challenge for Ecuadorian women's participation in environmental decision making is the prevalence of machismo-marianismo culture, as described by Duffy et al. (2012). Machismo-marianismo ideology refers to the cultural norm that men retain the right to subordinate women and women must hold to their submissive role in society (Stevens, 1973). Even as women move into the labor force in Latin America, the passivity endemic throughout marianismo ideology could explain why so few Ecuadorian women seek work outside the home (only 58% of women aged 15-64 participate in the labor force compared with 83% of men of the same age range), and when they do, they often attain low-paying and low-skilled jobs (World dataBank, 2014; Duffy et al., 2012).

The prevalence of machismo-marianismo ideology may also explain why few women serve as ministers and vice ministers of environment

and few are present on NGO boards and serve as executive directors and/or presidents. However, women's relatively strong performance in international environmental delegations suggests that women, while they are not represented well in top leadership positions, are gaining technical expertise in addressing environmental issues. One interviewee commented on the disconnect between women's involvement in national and subnational decision-making processes:

“The last three ministers of environment have been women and at national levels women occupy many key leadership positions. There are more women studying and working in the environmental sciences than ever before and in meetings on environmental issues, women are often the majority of participants. However, this does not necessarily mean that gender issues or inequalities are resolved ... when you move out of the national context into environmental leadership in local levels, there you have extreme problems in terms of being dominated by men, very few women present, [and] very few considerations of women's needs or incorporation of gender.”

Furthermore, interviews also indicated that there is a culture within Ecuador among women to seek their husband's approval for mobility outside the home (personal communication, October 2014). Needing a husband's approval for mobility outside the home can severely restrict women's ability to advance in any career including in the environmental arena and, in turn, engage in environmental decision making. Women experience this restriction in varying degrees throughout Ecuador's diverse regions (Duffy et al., 2012). The prevalence of machismo culture is much higher in La Costa (controlled primarily by the fishing industry and home to the mestizo ethnic group) than in El Oriente or La Sierra (where indigenous Amazonian and peasant Andean women have experienced a higher degree of empowerment) (personal communication, October 2014). Higher prevalence of machismo-marianismo culture in La Costa can make gender and fisheries-related projects more difficult. One interviewee noted that there is a higher-level of difficulty in La Costa compared to other regions of Ecuador for engaging women in natural resource management.

Interviews also indicated that gender-sensitive conservation work is not a funding priority in Ecuador; therefore, there remains inadequate allocation of funds for gender work. Without proper allocation of funds for gender work, environmental managers and conservation organizations have limited capacity and training to address gender in their projects. Furthermore, for women at the community level, educational attainment and language barriers (lack of Spanish language skills among indigenous women) are significant impediments to their involvement in environmental decision making. Without adequate levels of education, women have difficulty in understanding the technical language of environmental issues. Although in some areas of Ecuador (particularly in the Andean and Amazonian regions) women appear to becoming more involved in the environmental sector, there remains low capacity within institutions to advance women's role and address gender concerns in environmental projects and programmes.

Actions for Moving Forward

- 1.** Awareness raising and advocacy efforts should be geared towards:
 - a.** International and national donors to ensure allocations of funds for gender-responsive programming and actions, implementing their own internal procedures, policies and mandates;
 - b.** Government policymakers to understand the benefits of gender equitable decision making and gender-responsive legislation; and
 - c.** Programme leadership and implementation staff in NGOs and civil society organizations to build capacity on gender considerations.
- 2.** Government and programme implementation teams should be trained in gender considerations, including to ensure adequate budgets are allocated for the implementation of gender commitments and objectives;
- 3.** At the community level, more efforts are needed to build women's capacity within community structures (e.g., education opportunities, language skills among non-Spanish speaking communities) so they are able to understand technical environmental aspects related to resource governance;
- 4.** Women's and environmental organizations and networks should be supported to engage and empower women to participate in positions of leadership; and
- 5.** Men and men's groups should be actively engaged as partners, not only to overcome historical machismo experienced throughout the community, but also to identify and understand the community-wide benefits of supporting women's participation in natural resource governance.



Background

The Republic of Liberia, a West African country situated in the Upper Guinea Rainforest Region, has a tropical climate and is characterized by tremendous biodiversity and heavy rainfall (IUCN, 2012). Due to extreme poverty, the country is highly vulnerable to environmental and social instability. Fourteen years of civil war led to the destruction of much of the economy, state institutions, and national infrastructure (IUCN, 2012). Nevertheless, since 2003, Liberia has made substantial progress in negotiating peace, and women were instrumental in this process. In 2005, peaceful elections led to Africa's first democratically elected female Head of State, Ellen Johnson-Sirleaf (IUCN, 2012; Piah, 2009).

Following civil conflict, Liberia's economic growth has focused primarily on the use of its renewable and non-renewable natural resources (Bottem and Unrun, 2009; NGP, 2009). Even after nearly a decade of peacebuilding efforts, however, there is still significant pressure on Liberia's environment and ecosystem services due to the overexploitation of resources, violence, displacement of people, and other effects associated with Liberia's civil conflict (Piah, 2009; NGP, 2009).

During the conflict, the destruction of natural resources was severe, resulting in the displacement of many communities, which disproportionately affected women's engagement in income-generating activities (MGD, 2009). In times of conflict, displacement can further exacerbate the lack of access to land and natural resources, which is at the center of women's poverty in most developing contexts (UNEP, 2013). During conflict, women often become the primary earners for their family; thus the loss of land makes them and their families particularly vulnerable to poverty, as sources of income are lost (UNEP, 2013). As a result, during peacebuilding efforts, the Liberian government put significant emphasis and priority on addressing gender inequalities and engaging women in natural resource management (Bottem and Unrun, 2009; NGP, 2009). Liberia's National Environmental Policy recognizes and acknowledges women's vital role in conservation and environmental management and aims to ensure their participation in all levels of environmental decision making (MGD, 2009).

However, despite the progress made in peace-building efforts to address gender gaps, “women and girls continue to have limited access to education and health services, and the formal economy. Women have been left out of opportunities and participation in management and decision-making positions at all levels of the society,” (MGD, 2009). Socio-cultural norms and practices that support female marginalization and male superiority perpetuate gender inequalities and women’s subordination in Liberian society (MGD, 2009). The cultural expectation of women’s roles as care takers and providers restricts their participation in the formal economy, leaving women to continually miss out on opportunities and participation in management and decision making at all levels of society (MGD, 2009).

To ensure further progress for gender equality in Liberia’s economic development, under the Ministry of Gender and Development, the Liberian government has instituted the National Gender Policy (NGP), intended “to eliminate all gender related problems in Liberia” (MGD, 2009). Under the NGP, the Ministry of Gender and Development is committed to addressing gender concerns in natural resource management and the environment. Under this umbrella, the NGP’s objectives are: “(1) To promote the active involvement of men and women in environmental decision making at all levels; [and] (2) to mainstream gender concerns and perspectives in all policies and programmes for sustainable development,” (MGD, 2009). The time frame for the implementation of Liberia’s NGP is 10 years (2010-2020) with a five-year midterm evaluation.

Liberia’s efforts to address gender gaps in society have been met with challenges. In post-conflict Liberia, where the unemployment rate was 85%, many men were frustrated with the economic empowerment programmes targeted at women, claiming that the programmes “undermined their ability to fulfill their roles as providers for their families and thereby to gain social respect as men,” (UNEP, 2013). The major challenge for women’s participation in environmental decision making is still cultural. Thus, efforts to “rebrand the concept of the woman in a male-dominated society” are viewed as important in this context (personal communication, October 2014).

Results and Discussion

Index Performance

According to various development data and rankings, Liberia is the least developed and the poorest country of the three countries examined in this study and thus is shown as the weakest performer in all the indices. Liberia placed third among the three countries for

the EPI, GGG, GII, and SIGI (Table 2.1). Of the two countries, Liberia placed second on the EGI after the Philippines (Ecuador not ranked), with a final score of 47, compared to the Philippines' score of 60 (out of a total 100) (See Appendix C for further information about EGI ranking and scoring). Liberia's weakest category on the EGI was Livelihood. Livelihood indicators include poverty levels, food adequacy, levels of anemia, solid fuel use, access to improved water sources, and access to sanitation. Given Liberia's history and state of progress in economic development, its weak performance on Livelihood variables is predictable and also sheds light on areas for improvement.

Table 2.1 Liberia's performance in gender equality and environmental indices

Index	Overall Rank	Case Rank (Out of 3 countries)
<i>Environment and Gender Index (EGI)**</i>	54 out of 72	2
<i>Global Gender Gap (GGG)</i>	111 out of 142	3
<i>Gender Inequality Index (GII)</i>	145 out of 187	3
<i>Social Institutions and Gender Index (SIGI)</i>	62 out of 86	3
<i>Environmental Performance Index (EPI)</i>	172 out of 178	3

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Despite its weak performance on the indices, Liberia is one of the strongest performers in women holding high-level environmental positions, particularly as ministers of the environment and as board members of major national environmental non-governmental organization (ENGOS). Currently, 75% of Liberia's environmental ministers (3 out of 4) are women (Table 2.2). Within civil society, a select number of national NGOs were considered on the basis of influence and size (according to those consulted for this study.) Of the four major NGOs considered for Liberia, 53% of board members are women while none had women as president and/or executive director (Table 2.2). However, these data are not fully representative of the situation of Liberian women in civil society; many of the data regarding Liberian NGO board membership and executive leadership were not accessible.

Similarly, the information regarding vice ministers of environment was also not complete (see Appendix B for more information).

In Liberia's international delegations for environmental conventions, women have a lower participation rate than in government and civil society positions. Liberia had the most female government delegates to the UNFCCC (38% women), followed by CBD (33%), with the UNCCD having no female delegates (Appendix B). Across the UN Conventions, delegates averaged only 24% women. For the three Rio Convention focal points, only one was a woman (CBD) and Liberia's GEF focal point is a woman (Table 2.2; Appendix B).

Interestingly, as observed in Ecuador's UNFCCC delegation, Liberia's delegation in UNFCCC has the highest participation of women (38%) (Table 1.2; 2.2). This result is perhaps indicative of the level of investment each country has put forth for women engaging in climate change decisions and also the level of education and technical training provided for women within this sector. There have also been profound changes in UNFCCC decisions in recent years, including direct mandates to Parties to include and support women delegates.²

Table 2.2 Women's representation in key environmental positions across government, civil society, and international environmental delegations

Sector	Variable	% Women
Government	Ministers of Environment-related Sectors	75
	Vice-Ministers of Environment-related Sectors	--
Civil Society	Environmental NGO Presidents/ Executive Directors	0
	Environmental NGO Board Membership	53
International	UNFCCC COP19 Government Delegates	38
	UNCCD COP11 Government Delegates	0
	CBD COP11 Government Delegates	33

². Including UNFCCC Decision 23/CP.18

Table 2.2 Women's representation in key environmental positions across government, civil society, and international environmental delegations (cont.)

Sector	Variable	% Women
International	Average Participation in Rio Conventions (UNFCCC, UNCCD, CBD)	24
	Rio Convention Focal Points	33
	GEF Focal Points	100

Obstacles to Women's Participation

Although Liberia has faced significant challenges with regard to gender equality and power relations with respect to decision making across all sectors of society, the high percentage of women in top environmental positions indicates that the country has taken great steps to advance equity in their environmental processes.

Although Liberia has made significant efforts to advance gender equity in environmental decision making, these efforts are still at nascent stages. Interviews and the literature revealed that, to date, there has been limited space for the inclusion of women in decision-making processes across all sectors of society (MGD, 2009). One interviewee noted:

“Presently there are a lot of environmental issues that are confronting women. The reality is that you don’t find many women involved in decision making that relates to the environment, even though the head of the EPA [Environmental Protection Agency] happens to be a woman. At the management level of the EPA, I work alongside two women [but] there is [still] a minimal amount of women participating in decision making ... I think it is gradually getting better.”

The space for the inclusion of women in environmental decision making is just now being created (*personal communication*, September 2014). The NGP is working to increase women's involvement in decision making, but limitations abound. Most interviewees acknowledged

that the challenges for women to engage in environmental decision making are greatest within community structures in rural areas. In these community structures, because of women's cultural domestic roles, women are often found in the background of discussions, as it is traditionally the man's role to be the decision-maker (personal communication, September 2014).

As a result of traditional roles, often only boys are sent to school, leaving girls and women uneducated and reliant on their husbands to make generally all major decisions outside of their domestic care taker roles (*personal communication*, September 2014). With boys and men receiving education, they are able to participate in the formal economy more than girls and women, perpetuating gender segregation in the labor market and limiting women's opportunities for economic empowerment (MGD, 2009).

Due to these structural constraints associated with the gendered division of labor, women perform a larger percentage of unpaid work caring for family and the home (MGP, 2009). These responsibilities severely restrict their ability to participate in formal decision-making processes and thus leave women with less access to credit, training, and information that could improve their livelihood options (MGD, 2009). Moreover, lower levels of education and literacy rates among women in rural areas (as compared to their urban female counterparts and rural/urban men) further restricts their capacity to understand technical environmental language that is required to participate in certain environmental management circles (*personal communication*, September 2014). Interviews indicated that Liberia could benefit from women's involvement because women typically opt for more viable solutions and think in the long term, thus it is mutually beneficial to advance their role.

Actions for Moving Forward

1. Within government, Liberia has laid out the key policies to advance gender work, including the Liberia Poverty Reduction Strategy and the National Gender Policy. Comprehensive implementation of these policies should be prioritized;
2. International donors should provide continued support to aid Liberia in its reconstruction process and guide allocation of funds to continue implementation of gendered policies and gender-responsive development on the ground;
3. The international community should provide technical assistance to the Liberian government and civil society for addressing gender

inequalities, aid in awareness-raising about the importance of including women, and promote women's involvement at all levels of decision making; and

- 4.** For government and civil society programmes and projects, there should be a focus on giving rural women access to education and support that helps to shift traditional norms about women's roles in society. Activities should be focused on educational and economic empowerment in order to increase women's confidence to participate in decision making;
- 5.** Across all stakeholders, an understanding of the value of women's knowledge should be fostered: while rural women, especially, may not demonstrate or believe they have "technical" knowledge, they have local knowledge, expertise, and capacity that contributes important information to environmental decision making;
 - a.** Project teams and rural women themselves should be educated so that they understand the importance of women's local knowledge, which should then be utilized to advance their role in environmental decision making.



Background

The Philippines is an archipelagic nation in Southeast Asia, with over 100 million people inhabiting the nation's 7,100 islands (Burke et al., 2012). The country's primary environmental sectors are agriculture, fisheries, and forestry (ADB, 2008). In 2008, the environmental sector comprised 18.8% of the Philippine GDP and employed roughly 36.6% of the total labor force (ADB, 2008). Efforts to protect the environment in the Philippines have seen mixed success. The Philippines is still facing rapid depletion of environmental resources, but at the same time the country has seen improvements in its institutional framework to address environmental problems, such as better interagency coordination and higher capacity to prosecute environmental crimes (EC, 2009). The Philippines is also extremely vulnerable to natural disasters, such as the devastating Typhoon Haiyan in 2013, and has established a comprehensive institutional and legal framework for disaster response and management (Luna, 2001).

In terms of gender equality, the Philippines is far more advanced than its Southeast Asian counterparts (UNDP, 2010). The country scores well on gender equality indices and has enacted a multitude of gender-sensitive policies to ensure women's empowerment and equal legal standing (UNDP, 2010). Beginning in the 1990s, the Philippines began incorporating gender into environmental policy. By 1998, the Department of Environment and Natural Resources (DENR) and the Department of Energy (DOE) had fully implemented a gender focal point system, following Executive Order (EO) 273, which adopted the Philippine Plan for Gender-Responsive Development (PPFD) (DENR, 1998). However, despite its performance on policy variables, implementation of policies appears uneven and slow (UNDP, 2010).

The Republic Act 7192 (otherwise known as Women in Development and Nation-Building Act 1992) states that: "all government departments shall ensure that women benefit equally and participate directly in the development programmes and projects of said department, specifically those funded under official foreign development assistance, to ensure the full participation and involvement of women in the development process." The programme on Gender and Development (GAD) requires a minimum 35% participation rate of women in community programmes across the environmental sector. However, UNDP (2010)

reported that there are often discrepancies in Philippine gender policy implementation. Clabots (2013) also found in her case study on women in marine protected area (MPA) management in the Philippines that many fisheries programmes were severely lacking in compliance with the Republic Act and the GAD programme requirements. Inconsistency in upholding gender progressive policies can limit women's empowerment in environmental decision making.

Results and Discussion

Index Performance

The Philippines placed between Ecuador and Liberia on the EPI, which reinforces the mixed success the Philippines has experienced in environmental protection (Table 3.1). The Philippines placed first out of the three countries for the EGI, GGG, GII, and the SIGI (Table 3.1), which is expected given the country's global recognition and within Southeast Asia as a strong performer for enacting progressive gender-sensitive policies aimed at the advancement of women's rights (UNDP, 2010; WB, 2012).

Table 3.1 Philippine's performance on gender equality and environmental indices

Index	Overall Rank	Case Rank (Out of 3 countries)
<i>Environment and Gender Index (EGI)**</i>	26 out of 72	1
<i>Global Gender Gap (GGG)</i>	9 out of 142	1
<i>Gender Inequality Index (GII)</i>	78 out of 187	1
<i>Social Institutions and Gender Index (SIGI)</i>	12 out of 86	1
<i>Environmental Performance Index (EPI)</i>	114 out of 178	2

However, despite strong policies, implementation of gender policies can be inconsistent in the Philippines. For example, Clabots (2013) found in her case study in the Central Visayas region that women in certain *barangays* (villages), the smallest Philippine unit of governance, were excluded from MPA management. Men in this particular village

had reported that staff from the Bureau of Fisheries and Aquatic Resources (BFAR) told them women were “not allowed” to participate (Clabots, 2013). Interviewees also recognized the gender imbalance in participation at the community level, stating:

“I think at the national level, women are well-represented. We have women commissioners, we have women senators, women directors. However ... I think at the community level, women are less represented. So there is an imbalance,” (personal communication, September 2014).

Evidently, although GAD requires a minimum of 35% participation rate of women, policies may not be strictly enforced in all regions and levels of the Philippines.

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It appears that women in the Philippine national government are also not taking on top positions. Only 20% of Philippine ministers of environment are women and only 36% vice ministers of environment are women (Table 3.2). Interestingly, most interviewees did not identify a gender imbalance at the national level:

“Even at the national level ... we have very active women participation in national committees for climate change, for marine protected areas, for fisheries ... The head of the division under the Department of Environment and Natural Resources (DENR), who’s looking after the protected areas system (NIPAS) in the Philippines is a woman ... So I’d say that in the Philippines the capacity of women to lead in conservation is [well] recognized,” (personal communication, October 2014).

The analysis for these case studies solely examined government-held positions at the ministerial and vice ministerial levels; therefore it is possible that women in government may be better represented at lower levels of governance (as directors, division chiefs, etc.). This finding may suggest that women in the Philippines are experiencing the “glass ceiling effect”, whereby women struggle to advance their careers and achieve top position due to gendered barriers in the workforce.

However, women’s involvement in civil society and particularly international environmental delegations is strong. While women’s representation as NGO presidents/executive directors (in the NGOs considered for this analysis) was only about 33%, women constitute roughly half (47%) of board members (Table 3.2). Government delegates for UNFCCC COP19 were 67% women and 71% women for UNCBD COP11 (Table 3.2). With the exception of UNCCD COP11, women’s strong performance in international environmental delegations could be a result of the Philippines’ gender-responsive development policies, which were enacted prior to policies in both Ecuador and Liberia.

Table 3.2 Philippines performance for women’s representation in government, civil society, and international environmental delegations

Sector	Variable	% Women
Government	Ministers of Environment-related Sectors	20
	Vice-Ministers of Environment-related Sectors	36
Civil Society	Environmental NGO Presidents/ Executive Directors	33
	Environmental NGO Board Membership	47
International	UNFCCC COP19 Government Delegates	67
	UNCCD COP11 Government Delegates	0 ³
	CBD COP11 Government Delegates	71

3. The Philippines only sent two delegates to this convention, which happened to both be men (see Appendix A for more details)

Table 3.2 Philippines performance for women's representation in government, civil society, and international environmental delegations (cont.)

Sector	Variable	% Women
International	Average Participation in Rio Conventions (UNFCCC, UNCCD, CBD)	46
	Rio Convention Focal Points	16
	GEF Focal Points	50

The majority of Philippine informants agreed that women's participation in environmental management is strong overall. One interviewee stated:

“For the environment, there is a very good participation of women in environmental work in the Philippines. In fact [for marine conservation], in all the committees I sit in, there are more women than men, even at the local level. [...] Our most successful mangrove conservation work on site is headed by a women’s group,” (personal communication, October 2014).

In addition to the policies established, the data reflect that overall there are efforts to engage women but cultural stereotypes may prevent women from participating in some community structures and achieve higher positions within government (*personal communication, October 2014*).

Obstacles to Women's Participation

Since 1989, to strengthen women's voice and influence in natural resource management and policy, the Department of Environment and Natural Resources (DENR) has initiated several mechanisms, including the creation of the Technical Working Committee on Women (TWCW) to serve as DENR's Women in Development Focal Point (PCW, 2009). The TWCW's function was to ensure that DENR policies, programmes and projects met the needs and interests of the women they served, as well as the interests of their female employees.

The Philippine Strategy for Sustainable Development (PPGD) also set specific objectives, “to ensure the full participation in and benefit by women from sustainable development,” (PCW, 2009). These objectives include gender mainstreaming and the promotion of women in decision making (PCW, 2009).

However, despite the Philippines’ policy advances, women still face certain obstacles, notably a male-dominant culture, which women experience to varying degrees across different areas of the Philippines and socioeconomic status (*personal communication*, October 2014). In the higher socioeconomic bracket, interviews indicated that it is more difficult for women to obtain high-level environmental decision-making positions. For example, women can occupy high-level positions in the environmental sector but they must have the academic pedigree (master’s degree or Ph.D. with experience), while men occupy these positions without the same academic credentials and are hired solely based on their experience. Although the country performed relatively well on the quantitative variables, the low percentage of women serving as ministers of environment (only 20% are women) is indicative that this sentiment is in fact playing out within government.

Nevertheless, Filipina women’s greatest struggle is in the under-developed and impoverished provinces and municipalities. The state of the Philippines’ environment is a direct result of economic and social factors, including poverty and rapid population growth (PCW, 2009). The role of women is critical in combating poverty, an important part of which is ensuring women can control their own reproductive health and family size, in order to maintain resource sustainability (PCW, 2009). Women in impoverished, rural areas of the Philippines have limited educational opportunities and they experience greater gendered stereotypes that prevent them from engaging in natural resource management (*personal communication*, September 2014). Women, especially in the Mindanao province, have very limited exposure to decision-making processes (*personal communication*, October 2014). There is a preference to send sons rather than daughters to school, restricting daughters’ ability to pursue a living outside the informal economy and receive education (*personal communication*, October 2014).

Actions for Moving Forward

- 1.** Gender policy is well-advanced in the Philippines; however, resources should be allocated to ensure that government agencies and civil society organizations in the provinces and municipalities of the Philippines are upholding national policies;
- 2.** International donors should be cognizant of this reality and should prioritize support for implementing strong gender policies and programmes;
- 3.** Government and civil society should focus on long-term initiatives that can instill a cultural shift in women's and men's roles in decision making; among key strategies:
 - a.** Women at the barangay (village) level, need more exposure to trainings, meetings, and better access to resources (financial and educational);
 - b.** Establishing women's groups in the conservation context has proven successful in the Philippines to help encourage other women from neighboring communities and spread capacity;
 - c.** There is more education needed within the family about the importance of educating both girls and boys; promoting equality between sons and daughters could lead to higher education and literacy rates among women in rural areas and higher levels of confidence to participate in decision making; and
- 4.** At professional levels, a business case for increasing women's leadership should be considered, training and empowerment programmes for women should be pursued, and professional women's networks should be supported.

Conclusion

The governments of Ecuador, Liberia and the Philippines are all making conscious efforts to advance the role of women in environmental decision making. However, each country has its unique obstacles and hurdles to overcome before gender balance is achieved and gender equality is improved. Moreover, each country demonstrates that obstacles to women's participation and leadership vary amongst regions and levels of society.

Since the 1990s, Ecuador has enacted a number of policies regarding women's rights and political participation. Moreover, the Ministry of Environment has initiated a gender-sensitive approach to natural resource management, highlighting the importance of addressing women's needs. However, over the past couple decades, Ecuador's agenda for gender-sensitive natural resource management has focused solely on the inclusion of women. There remains an inadequate understanding of the reasons for gender-sensitive projects and how to best integrate the meaningful participation of women. There are a number of women occupying leadership positions within the environmental sector; however, this does not guarantee that gender analysis is conducted in environmental projects. It appears that Ecuador's most pressing problems are the lack of fund allocation for developing/supporting gender expertise in the environmental sector and strong cultural ideologies that prevent women in community structures from participating in management and decision making.

Liberia, a post-conflict nation, is still in the rebuilding process to reestablish state institutions, national infrastructure, and restore decision-making processes. Women have been at the forefront of the rebuilding process, and gender equality has been a strong priority for the Liberian government. Liberia has enacted both gender-sensitive environmental policies and the National Gender Policy, which ensures and promotes women's participation in resource management, but compared to Ecuador and the Philippines, these policies are still in their infancy. Rural Liberian women are in the greatest need of support, where they suffer from extremely low literacy rates compared to that of their urban female counterparts and both rural and urban men. Efforts should be focused on building the capacity of Liberia's environmental sector (government and civil society organizations) to address gender in their projects and implement relevant national policies, educating women in rural areas, and working to educate men about women's roles inside and outside the home.

The Philippines is well advanced from a policy standpoint. Beginning in the late 1980s and carrying into the 1990s, the Philippines passed a multitude of policies and programmes to ensure and promote women's involvement in economic development and in turn natural resource management. The Philippines has experienced much success in engaging women in natural resource management at multiple levels, however, government projects in certain provinces and municipalities have been found to be inconsistent in upholding gender-sensitive policies and gender quotas. It is within these areas, where women need to be better educated on their rights and promoted as equal partners both inside the home and in the community. Furthermore, Filipina women seem to experience difficulty in achieving higher-level positions within government, even though their educational attainment is often higher. Therefore, professional women's networks that focus on empowering women into leadership roles should be supported.

The common theme among these three countries, which represent very diverse cultures and geographical landscapes, is that the majority of women, in both rural and urban areas, experience some degree of discrimination inherent in the historical patriarchal system and related set of cultural expectations, restricting their ability to reach high-level environmental decision-making positions. The culture of male dominance and traditional role of women as domestic caretaker have prevented women from advancing their education and leave them with little time to participate in formal resource decision making. Moreover, it appears that, while many women do not have opportunity for technical training commonly needed for and applied in formal decision-making processes, their local or traditional knowledge and capacities are undervalued. There is still a great need within these countries' environmental institutions to build sufficient capacity to address gender in environmental projects, recognize women's valuable knowledge and capacity, and ensure national policies and projects benefit from the participation and leadership of both men and women.

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Appendix

Appendix A Preliminary Research Framework Indicators

Country Criteria

Lessons could be interesting and support IUCN and CI messaging on gender and environment

Strong potential for securing quantitative data (datasets) and qualitative data (literature, interviews) across a key environmental sector or multiple sectors

Research guidance possible from IUCN and CI offices (data, contacts, reliable responsiveness)

Research guidance possible from government or other country stakeholders

Link to existing or current EGI research to deepen analysis at country-level

How countries rank on three decision-making variables in EGI for global comparison purposes

Regional spread and diverse country characteristics (GDP, size, geopolitical situation)

Significant recipient of multilateral and bilateral support, in order to influence those institutions

Entry point to influence country action on this topic

Quantitative variables to consider for each country (*=dropped indicator)

Score on relevant variables in EGI

Score on Global Gender Gap variables related to policy, education, etc.

Score on Gender Inequality Index policy and education related variables

Score on Social Institutions and Gender Index policy and education related variable

Score on Environmental Performance Index

Preliminary Research Framework (continued)

Quantitative variables to consider for each country (* = dropped indicator) (cont.)

Data from 2011 Human Development Index linking women in parliaments to environmental protection*

Ministers of environment and environment-related ministries (including forestry, fisheries/marine/coastal, water/irrigation, energy/oil, agriculture, livestock, land, climate change, mining)

Vice Ministers of environment and environment-related ministries

Women government delegates registered for Rio Convention COPs

National focal points of Rio Conventions/GEF

Women NGO representatives registered for Rio COPs*

Women/gender in title or organization of registration for Rio COPs*

Women's NGOs at national level working on environmental issues (topics to be defined)*

Elected members of national green parties*

Leadership and Board members of national environmental NGOs

International environmental institutions and organizations with gender focal points*

Gender balance, level of position, and gender focal points among Convention Secretariats and GEF

Gender balance in consultation process for national climate change and REDD strategies*

How much investment goes into gender in this country, and is any earmarked for environment*

Gender balance in member country's committees for the World Energy Council*

Environment ministries with gender focal point (less demonstrative of topic)*

Women's ministries with environmental focal point (less demonstrative of topic)*

Preliminary Research Framework (continued)

Initial Research Questions

What is the state of women's participation, representation, and leadership in the environmental sector in the country?

What are the major lessons from this country?

How does the country compare to its peers in the region?

What are the bottlenecks at policy, institutional, and subnational level to women's advancement in this sector?

What are the cultural bottlenecks?

What steps could be taken to achieve gender balance?

What does the research on other sectors about women's advancement in this country or region tell us, and how is it applicable to the environmental sector?

What co-benefits could there be from women's advancement in the environmental sector?



A. Indices

Environment and Gender Index (72 countries, 2013)

	Rank	Score
Overall	ND	ND
Livelihood	ND	ND
Ecosystem	ND	ND
Gender-based rights and participation	ND	ND
Governance	ND	ND
Gender-based education and assets	ND	ND
Country-reported activities	ND	ND

Environmental Performance Index (178 countries)

	Rank	Score
Overall	53	58.54
Health Impacts	89	72.1
Air Quality	25	98.13
Water and Sanitation	85	50.07
Water Resources	98	6.4
Agriculture	1	96
Forests	74	28.15

**Environmental Performance Index
(178 countries) (cont.)**

	Rank	Score
Fisheries	20	37.17
Biodiversity	34	88.09
Climate and Energy	51	54.66

**Global Gender Gap Index
(142 countries, 2013)**

	Rank	Score
Overall (score: highest is 1.0)	21	0.7455
Economic Participation and Opportunity	45	0.715
Educational Attainment	52	0.996
Health and Survival	1	0.980
Political Empowerment	28	0.291

**Gender Inequality Index
(187 countries, 2012/2013)**

	Rank	Score
Overall	82	0.429
Share of seats in parliament, 2013	N/A	38.7
Population with at least some secondary education, 25 +, female, 2005-2012	N/A	40.1
Population with at least some secondary education, 25 +, male, 2005-2012	N/A	39.4
Participation rate, 15+, female, 2012	N/A	54.4
Participation rate, 15+, male, 2012	N/A	82.6

Social Institutions and Gender Index (86 countries, 2012)

	Rank	Score
Overall	18	0.130706
Discriminatory Family Code	34	0.2134
Restricted Physical Integrity	56	0.3509
Son Bias	41	0.480151
Restricted Resource and Entitlements	64	0.5071
Restricted Civil Liberties	3	0.0257

B. Government

Ministers

	M/F
Ministry of the Environment (MAE)	F
Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP)	M
Minister of Electricity and Renewable Energy	M
Minister of Nonrenewable Natural Resources	M
	25%

Vice-Ministers

M/F

Vice Ministry of the Environment (MAE)

F

MAGAP -Vice Minister of Aquaculture and Fisheries (Viceministerio de Acuacultura y Pesca)

F

MAGAP – Vice Minister of Rural Development (Viceministerio de Desarrollo Rural)

M

MAGAP – Vice Minister of Agriculture and Livestock (Viceministerio de Agricultura y Ganadería)

M

Vice Minister of Electricity and Renewable Energy

M

Vice Minister of Nonrenewable Natural Resources (Oil)

M

Vice Minister of Nonrenewable Natural Resources (Mining)

M

29%

C. Nongovernmental Organizations

Institution	Gender (M/F) of Organization's Head	Gender (M/F) Board Chair (if applicable)	GENDER (M/F) of 2nd in charge	# Women board members	Total # board members	% Women board members
A	F	N/A	ND	4	7	57%
B	M	ND	ND	ND	ND	ND
C	M	N/A	F	4	16	25%
D	M	ND	F	ND	ND	ND
E	M	M	F	2	10	20%
F	ND	ND	ND	ND	ND	ND

Institution	Gender (M/F) of Organization's Head	Gender (M/F) Board Chair (if applicable)	GENDER (M/F) of 2nd in charge	# Women board members	Total # board members	% Women board members
G	M	ND	M	ND	ND	ND
H	M	M	ND	4	8	50%
I	M	ND	ND	ND	ND	ND
	%Women Heads				Avg	38%

D. International Environmental Delegation

Women government delegates registered for Rio Convention COPs

	#F	#M	%F
UNFCCC COP19	7	10	41%
UNCCD COP11	1	2	33%
CBD COP11	7	11	39%

Women government delegates registered for Rio Convention COPs

	#F	#M	%F
UNFCCC COP19	0	2	0%
UNCCD COP11	0	1	0%
CBD COP11	0	3	100%
GEF	1	1	50%



A. Indices

Environment and Gender Index (72 countries, 2013)	Rank (regional rank: out of 20)	Score
Overall	54	47
Livelihood	17	22
Ecosystem	20	43
Gender-based rights and participation	13	51
Governance	4	53
Gender-based education and assets	3	65
Country-reported activities	6	45

Environmental Performance Index (178 countries)	Rank	Score
Overall	172	23.95
Health Impacts	143	35.4
Air Quality	151	67.33
Water and Sanitation	152	11.22
Water Resources	145	0
Agriculture	1	96
Forests	93	20.58

**Environmental Performance Index
(178 countries) (cont.)**

	Rank	Score
Fisheries	31	30.5
Biodiversity	167	4.13
Climate and Energy	ND	ND

**Global Gender Gap Index
(142 countries, 2013)**

	Rank	Score
Overall (score: highest is 1.0)	111	0.6461
Economic Participation and Opportunity	94	0.637
Educational Attainment	135	0.774
Health and Survival	112	0.967
Political Empowerment	46	0.206

**Gender Inequality Index
(187 countries, 2012/2013)**

	Rank	Value
Overall	145	0.655
Share of seats in parliament, 2013	N/A	11.7
Population with at least some secondary education, 25 +, female, 2005-2012	N/A	15.7
Population with at least some secondary education, 25 +, male, 2005-2012	N/A	39.2
Participation rate, 15+, female, 2012	N/A	58.2
Participation rate, 15+, male, 2012	N/A	64.7

Social Institutions and Gender Index (86 countries, 2012)

	Rank	Value
Overall	62	0.344013
Discriminatory Family Code	81	0.5505
Restricted Physical Integrity	90	0.8234
Son Bias	25	0.42299
Restricted Resource and Entitlements	15	0
Restricted Civil Liberties	94	0.7489

B. Government

Ministers

	M/F
Ministry of Agriculture (MOA)	F
Ministry of Lands, Mines and Energy (MOLME)	M
Ministry of Gender and Development (MoGD)	F
Environmental Protection Agency	F
	75%

Vice-Ministers

M/F

Ministry of Agriculture

F

Ministry of Lands, Mines and Energy (MOLME)

M

M

M

Ministry of Gender and Development (MoGD)

F

Environmental Protection Agency

ND

40%

C. Nongovernmental Organizations /Civil Society

Institution	Gender (M/F) of Organization's Head	Gender (M/F) Board Chair (if applicable)	GENDER (M/F) of 2nd in charge	# Women board members	Total # board members	% Women board members
A	ND	F	ND	2	3	67%
B	ND	F	ND	6	14	43%
C	M	ND	ND	ND	ND	ND
D	ND	ND	ND	ND	ND	ND
E	M	M	ND	2	6	33%
F	ND	ND	ND	ND	ND	ND

Institution	Gender (M/F) of Organization's Head	Gender (M/F) Board Chair (if applicable)	GENDER (M/F) of 2nd in charge	# Women board members	Total # board members	% Women board members
G	ND	ND	ND	ND	ND	ND
H	ND	ND	ND	ND	ND	ND
I	M	ND	F	ND	ND	ND
	%Women Heads	0%			%Women	48%

D. International Environmental Delegation

Women government delegates registered for Rio Convention COPs

	#F	#M	%F
UNFCCC COP19	3	7	30%
UNCCD COP11	0	2	0%
CBD COP11	3	5	38%

National focal points of Rio Conventions/GEF

	#F	#M	%F
UNFCCC COP19	0	1	0%
UNCCD COP11	0	1	0%
CBD COP11	0	1	0%
GEF	1	1	50%



A. Indices

Environment and Gender Index (72 countries, 2013)	Rank (regional rank: out of 13)	Score
Overall	26	60
Livelihood	6	65
Ecosystem	7	67
Gender-based rights and participation	1	79
Governance	4	42
Gender-based education and assets	5	71
Country-reported activities	10	19

Environmental Performance Index (178 countries)	Rank	Score
Overall	114	44.02
Health Impacts	110	62.94
Air Quality	85	81.53
Water and Sanitation	103	37.35
Water Resources	130	0.53
Agriculture	162	45.38
Forests	70	31.35

**Environmental Performance Index
(178 countries) (cont.)**

	Rank	Score
Fisheries	64	23.18
Biodiversity	82	64.67
Climate and Energy	103	35.73

**Global Gender Gap Index
(142 countries, 2013)**

	Rank	Score
Overall (score: highest is 1.0)	9	0.7850
Economic Participation and Opportunity	24	0.7780
Educational Attainment	1	1.0000
Health and Survival	1	0.9800
Political Empowerment	17	0.3680

**Gender Inequality Index
(187 countries, 2012/2013)**

	Rank	Value
Overall	78	0.406
Share of seats in parliament, 2013	N/A	26.9
Population with at least some secondary education, 25 +, female, 2005-2012	N/A	65.9
Population with at least some secondary education, 25 +, male, 2005-2012	N/A	63.8
Participation rate, 15+, female, 2012	N/A	51
Participation rate, 15+, male, 2012	N/A	79.7

Social Institutions And Gender Index (86 Countries, 2012)

	Rank	Value
Overall	12	0.119287
Discriminatory Family Code	22	0.1349
Restricted Physical Integrity	16	0.1534
Son Bias	73	0.604197
Restricted Resource and Entitlements	43	0.3473
Restricted Civil Liberties	24	0.2696

B. Government

Ministers

	M/F
Department of Energy	M
Department of Environmental and Natural Resources (DENR)	M
Department of Agriculture (DA)	M
Climate Change Commission (Office of the President)	F
Department of Agrarian Reform (DAR)	M
	20%

Vice-Ministers	M/F
Department of Energy	M
Department of Energy	F
Department of Energy	M
Department of Energy	F
Department of Energy	M
Department of Environmental and Natural Resources (DENR)	F
Department of Agriculture (DA)	M
Department of Agriculture (DA)	M
Department of Agriculture (DA)	M
Department of Agriculture (DA)	F
Department of Agrarian Reform (DAR)	M
Department of Agrarian Reform (DAR)	F
Department of Agrarian Reform (DAR)	M
Department of Agrarian Reform (DAR)	M
	36%

C. Nongovernmental Organizations /Civil Society

Institution	Gender (M/F) of Organization's Head	Gender (M/F) Board Chair (if applicable)	GENDER (M/F) of 2nd in charge	# Women board members	Total # board members	% Women board members
A	M	M	n/a	3	10	30%
B	F	F	M	8	12	67%
C	M	M	F	4	9	44%
D	M	ND	ND	ND	ND	ND
E	n/a	M	M	2	11	18%
F	F	M	M	2	11	18%
G	M	F	F	2	7	29%
H	F	F	F	1	4	25%
	%Women Heads	43%			%Women	33%

D. International Environmental Delegation

Women government delegates registered for Rio Convention COPs

	#F	#M	%F
UNFCCC COP19	30	15	67%
UNCCD COP11	0	2	0%
CBD COP11	10	4	71%

National focal points of Rio Conventions/GEF

	#F	#M	%F
UNFCCC COP19	1	1	50%
UNCCD COP11	0	1	0%
CBD COP11	0	1	0%
GEF	1	1	50%

Appendix C: Environment and Gender Index (EGI) Framework Variable Descriptions

Lower levels of poverty

Category 1: Livelihood

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 (https://www.cia.gov/library/publications/the-world-factbook/)
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). Normalized 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)

Food adequacy (cont.)

Rationale	<i>Inadequate levels of food affect a woman's overall well-being and also restricts her activity levels and ability to participate fully in society.</i>
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	<i>Percentage of the female population (pregnant or not pregnant) who do not have anemia based on the WHO's definition of anemia (hemoglobin threshold level of 110g/L).</i>
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 is 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 entrepreneurial 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	Kirk Smith, Environmental Health Sciences, University of California – Berkeley, 2010
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 entrepreneurial activities.
Highest value	100% (Denmark, Poland, Lebanon) - best performers

Access to improved water source (cont.)

Lowest value	2% (Ethiopia) - 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	<p>This indicator measures access to improved sanitation which includes facilities that ensure hygienic separation of human excreta from human contact. They include:</p> <ul style="list-style-type: none">• Flush or pour-flush toilet/latrine to:• Piped sewer system• Septic tank• Pit latrine• Ventilated improved pit (VIP) latrine• Pit latrine with slab• Composting toilet
Source/date	UNICEF/JMP, 2012 (www.unicef.org)
Rationale	<p>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.</p>
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: Biodiversity preservation
Ecosystem

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 sources used: 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. Higher values are better.

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.
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Critical habitat protection (cont.)

Source/date	Environmental Performance Index (EPI) 2012 (http://epi.yale.edu/epi2012/rankings) original data sources used: Alliance for Zero Extinction (www.zeroextinction.org) and UNEP's The World Database on Protected Areas (WDPA) (www.unep-wcmc.org/)
Rationale	—
Highest value	99.98 (Spain) - best performer
Lowest value	0 (Gabon) - worst performer
Data notes	Data from 2010. Higher numbers are better. 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	<i>Growing stock is a volumetric 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.</i>
Source/date	Environmental Performance Index (EPI) 2012 (http://epi.yale.edu/epi2012/rankings) original data sources used: 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	99.98 (Spain) - best performer
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 - 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).

Category 3: Equal legal rights

Gendered Rights and Participation

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:

1. If either customary or personal law are valid sources of law, are they considered invalid if they violate constitutional provisions on discrimination or equality?
response: No
2. Who legally administers joint marital property?
response: Both spouses
3. In the case of dissolution of the marriage, who is entitled to ownership of the marital home?
response: 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?
response: Yes
5. Does joint titling of major assets (such as land or the marital home) exist for married couples?
response: Yes
6. If joint titling exists for married couples, is it the default for marital property?
response: Yes
7. Do sons and daughters have equal inheritance rights to moveable property from their parents?
response: Yes
8. Do sons and daughters have equal inheritance rights to immoveable property from their parents?
response: Yes
9. Do female and male surviving spouses have equal inheritance rights to moveable property?
response: Yes
10. Do female and male surviving spouses have equal inheritance rights to immoveable property?
response: 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?
response: Yes

Equal legal rights (cont.)

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.) - best performers
Lowest value	0 (Five countries: Egypt, Jordan, Lebanon, Mauritania and Morocco) - worst performers
Data notes	<p>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.</p> <p>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.</p>

Category 4: Civil liberties
Governance

Description	<i>'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.</i>
Source/date	Freedom House, 2012 (http://www.freedomhouse.org/report-types/freedom-world)
Rationale	Indicating 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)
Lowest value	2.20 (Democratic Republic of Congo)

Political stability (cont.)

Data notes	Variable values range from 2.5 as the best score to -2.5 as the worst. 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.
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Protection of property rights (WEF)

Description	<i>'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.</i>
Source/date	Freedom House, 2012 (http://www.freedomhouse.org/report-types/freedom-world)
Rationale	Indicating 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).

Category 5: Access to agricultural land**Gendered
Education
and Access**

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	<p>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:</p> <ul style="list-style-type: none">• 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 <p>Missing values for 18 developed countries estimated via internet search of OECD databases.</p>

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

Access to property (cont.)

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 value

1 (Costa Rica, Egypt, etc.) – best performers

Lowest value

0 (Benin, Congo (Rep), Ethiopia) – worst performers

Access to credit (cont.)

Data notes	<p>Data from country specific sources provided in the OECD SIGI country profiles for 2011. This data set uses a 3-point scale:</p> <ul style="list-style-type: none">• 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. <p>Missing values for 18 developed countries estimated via internet search of OECD databases.</p>
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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	<p>There are 12 countries missing from the original dataset with estimated values:</p> <p>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.</p>

Category 6: *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 actions⁵.*

Country Level

Reported Activities

5. 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.

Gender analysis of UNFCCC country 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 (1996 - 2010)
Highest value	0.85 (India) - best performer
Lowest value	0 (Moldova, Indonesia, Canada, etc.) - worst performer
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).

Gender analysis of UNFCCC country 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.

Gender analysis of CEDAW country 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.

Additional Country Data: Variable Descriptions

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 (percentage)

Description	<i>The percentage of women agriculture holders.</i> 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.
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Women agricultural holders (percentage) (cont.)

Source/date	(2012) The State of Food and Agriculture 2010- 2011, FAO, p. 118 - 126 (www.fao.org)
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Data notes	Data from 2011. Only available for a limited number of countries - missing data for 33 out of 72 countries.
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Female graduates in science

Description	Percentage of female graduates in science (in terms of total female graduates for that year)
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Source/date	UNESCO, 2001 - 2012 (www.unesco.org)
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Data notes	Most data from 2009 - 2012 (exceptions: Canada (2001); Gambia (2004); Italy (2004). Excessive missing values - 36 missing values out of 72 countries.
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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.
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Source/date	(2013) GEF Country Profile. (http://www.thegef.org/gef/country_profile)
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Data notes	Data accessed 2013. Only applicable for a limited number of countries - 54 out of 72 countries.
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Percentage of female-headed households (rural)

Description	Percentage share of rural households that are female headed.
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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.
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Data notes	Data from 2010. Only available for a limited number of countries - missing data for 36 out of 72 countries.
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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 working in the informal economy

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	<i>Latest data available 2000 - 2012. Data available for 58 out of 72 countries.</i>

Percentage of female internet users

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

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/date	OECD Gender, Institutions, and Development Database, 2012 (www.oecd.org)
Rationale	Legal quotas provide women with greater and more equal participation in leadership and decision-making roles.
Data notes	<p>Data from 2011. Three Scaled variable:</p> <ul style="list-style-type: none">• <i>Yes = There are legal quotas to promote women's political participation at national and sub-national levels</i>• <i>Partial = There are legal quotas to promote women's political participation at national or sub-national levels</i>• <i>No = There are no legal quotas to promote women's political participation</i> <p>Data missing for 17 developed countries.</p> <p>Political Quotas are not necessarily indicative of women's position in society. Including this indicator in the index would penalize countries where women are elected without quotas.</p>

Female mobile phone subscribers

Description	Regional averages for female mobile phone subscribers.
Source/date	Group Special Mobile Association (GSMA), accessed in 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.



Women in Environmental Decision Making: Case Studies in Ecuador, Liberia, and the Philippines

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