

# UNDP-UNEP Poverty Environment Initiative Malawi

## Gender-Environment and Natural Resources Data and Indicator Rapid Assessment



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## List of Abbreviations

<b>EGI</b>	Environment and gender index
<b>ENR</b>	Environment and Natural Resources
<b>EPI</b>	Environment Performance Index
<b>HIS</b>	Integrated Household Survey
<b>IUCN</b>	International Union for Conservation of Nature
<b>MDGs</b>	Millennium Development Goals
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>PEI</b>	Poverty and Environment Initiative
<b>SIGI</b>	Social Institutions and Gender Index
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs

# Gender-Environment and Natural Resources Data and Indicator Rapid Assessment: *Malawi*

## 1. Introduction, background and methodology

### 1.1 Introduction

The UNDP-UNEP Poverty-Environment Initiative (PEI) is a global programme that supports country-led efforts to mainstream poverty-environment (P-E) objectives into national development and sub-national development planning, from policymaking to budgeting, implementation and monitoring. The programme, in its second phase, aims to strengthen how gender is integrated in environment and natural resource (ENR) policies as well as the inclusion of gender-ENR related objectives and indicators in national development plans. The PEI supports 9 countries in Africa one of which is Malawi. In Malawi, the programme has for example supported the government to better include P-E objectives in the Malawi Development and Growth Strategy (MDGS) II, in the annual budget guidelines issued by the Ministry of Finance as well as in key sector policies including agriculture, fisheries and forestry and in district development planning processes. There are plans, at both national and district levels, to provide support for improved data collection and M&E frameworks on ENR to include gender and poverty linkages. The current assignment, as contained in this report is a rapid assessment of gender-ENR data and indicators in preparation for the PEI's work in Malawi in 2015, which will include support for the formulation of the new MDGS and National Parks and Wildlife Policy (NPWP).

The importance of gender statistics, notably different from sex-disaggregated data cannot be over emphasized<sup>1</sup>. Such data is important not only to show the differences between men and women for different indicators but also for effective planning. Planning for poverty alleviation by addressing ENR concerns requires targeting men and women separately. The reason being that ENR issues affect everyone but they affect men and women differently. Women's traditional responsibilities as food growers, water and fuel gatherers, and caregivers connect them closely to available natural resources and the climate, making them more likely to be impacted by environmental hardships.

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<sup>1</sup> Sex disaggregated data is data that indicates values for men and women separately. Gender statistics on the other hand "is about identifying, producing, disseminating, and analyzing statistics to understand how gender issues affect individuals and society. It is a way to show how gender differences can affect the economic and social development of societies". Sex disaggregated data can therefore feed into gender statistics and form the basis of gender statistical analysis.

[www.wikigender.org/index.php/Gender\\_statistics](http://www.wikigender.org/index.php/Gender_statistics)

Identifying and addressing women's and men's needs, as well as promoting women as decision makers, are critical elements to ensuring the achievement of sustainable management of ENR and ENR policy and programming. But to do so effectively, requires the production of data and statistics to capture the different roles of men and women in ENR and also the different impact of the environment on gender, so that it can inform policies.

The collection of data and indicators on gender-ENR linkages is a challenge over the years. However, in recent years progress has been made in this direction with data being collected by both national authorities and international organizations. The objective of the current assignment, therefore, is to review, for Malawi, the Integrated Household Survey (available on <http://www.nsomalawi.mw/>) and the identified datasets as presented in annex 1 from a gender-ENR perspective. The review will (i) identify what type of data is available, (ii) what are the gaps and (iii) make recommendations to PEI on how the data could be used and potential areas of support to the Government in bridging the gaps.

The assessment is not prescribing data that has not been collected nor making a case for the collection of such data. Rather, it is reviewing the data already collected and making an assessment of the gap/s and what needs to be done to improve on the data already collected.

## **1.2 Background and context: a brief Malawi gender related information**

Malawi is one of the Least Developed Countries, ranking 171 out of 187 countries in the Human Development Index (2011), with slightly more than half the population living under the poverty line. The country is ranked 38 out of 86 in the 2012 Social Institutions and Gender Index. The country was ranked 60 out of 102 in the 2009 Social Institutions and Gender Index. At the same time, it must be recognized that Malawi is making positive strides towards the attainment of gender equality, equity and women empowerment. For example, over the last five years the growth of women in Parliament and leadership positions has been more than 30 %, even though the overall level of women in the same positions is still below the target of 50 %. Key achievements include the rise of a long-serving female politician to the Presidency; 30.3 percent female cabinet representation; 50.79 percent Central Government Commission membership; 40 percent University of Malawi enrolment, 100 percent scholarship for female medical students; parity in girls and boys enrolment in primary education; parity in literacy rates for the 15-19 year age group; and development and review of legislations with a gender perspective, among others (UN Women Malawi Strategic note and Annual work Plan, 2013)<sup>2</sup>

The population is predominantly rural, with approximately 80% estimated as residing in rural areas, and close to 80% of the population engaged in agriculture. In

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<sup>2</sup> for a copy, contact the UN Women Malawi office: <http://www.unwomen.org/en/where-we-are/africa/regional-and-country-offices#malawi>

the agriculture sector, women provide almost all the labour (70%) but receive only 10 percent of extension services. Around 90% of the farming households have small land-holdings, averaging less than a hectare in area (down from 1.5 hectares in 1968) and this is often fragmented.

### 1.3 Methodology

Reviewing the Malawi Integrated Household Survey and the identified datasets in annex 1 from a gender-ENR perspective is carried out through a desk review. Data and information for the review relies on secondary data sources. Primary data collection through in-depth interviews and group discussions could add value, in future to a similar assignment. But this being only a quick assessment, the review of document and the identified data sets will suffice for this purpose.

This assessment is an evaluation of the nature, quality and quantity of the data available for gender-ENR programming in Malawi. The desk review framework for the assessment will therefore focus on the following key assessment criteria: (1) relevance of data (2) effectiveness (3) efficiency (4) impact and sustainability of data collection process and data itself.

The Malawi IHS collects data on 15 sectors: Agriculture, Demography, economy, education, environment, governance, health, information and communication, nutrition, protection, social services and community development, tourism, transport and women. For this assessment, given the scope of the assignment, four priority sectors- agriculture, economy, environment and women- is assessed. The sectors have been selected mostly because of their relation, (compared to the other 11 sectors on which the IHS collects data) to gender-ENR and also because of the availability of data on these sectors in the IHS<sup>3</sup>.

The objective of the assignment is to review existing national statistical datasets for one of the PEI Africa countries- Malawi, such as the Integrated Household Survey (available on <http://www.nsomalawi.mw/>). This assessment also involves seven indicators of the six thematic areas<sup>4</sup> from the identified datasets in annex 1. Each of the thematic areas has data available for specific indicators. The assessment focuses on individual indicators for 3<sup>5</sup> of the most relevant<sup>6</sup> thematic areas for this

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<sup>3</sup> However, the tourism sector should be considered for inclusion in more extensive assessments as environment and wildlife tourism has been estimated to contribute to 2.7% of Malawi's GDP.

<sup>4</sup> Data is organized into 6 thematic areas in the identified datasets in annex 1 (i) Energy (ii) Land, agriculture including irrigation water, forest/forestry and fisheries including fresh and coastal aquaculture/fish farming (iii) Biodiversity and ecosystems (including marine/coastal) (iv) Poverty and Natural Resource Management (including access to fresh water) (v) Environment and human health (air/water pollution, chemicals and waste, sanitation etc) and (vi) Governance/Rights, Participation and Mainstreaming and Finance

<sup>5</sup> Even though Environment and human health thematic area (in the identified data set in annex 1) was identified initially to be assessed for this report, this area has been dropped due to lack of data specifically for Malawi.

assessment report. Thematic areas on i) Land, agriculture including irrigation water, forest/forestry and fisheries including fresh and coastal aquaculture/fish farming (ii) Poverty and Natural Resource Management (including access to fresh water) (iii) Environment and human health (air/water pollution, chemicals and waste, sanitation etc) and (iv) Governance/Rights, Participation and Mainstreaming and Finance are directly related to the four sectors selected in the Malawi IHS. It is important to select data sets from the two sources (Malawi IHS and identified dataset) to assess comprehensively what data is collected and to identify the gaps. The table below presents data sets that was planned to be assessed for this report. The footnote on each dataset indicates the reason/s why some of the earlier on selected dataset could not be assessed for this report.

**Table 1: Datasets reviewed for the assessment**

Malawi IHS sectors	Data Sources	Selected data set	Data Sources
Agriculture	<a href="#">Living Standards Measurement Study-Integrated Surveys on Agriculture/IHS3</a>	Access to land	<a href="#">Gender, Institutions and Development Data Base</a>
Economy		Time spent collecting wood for fuel	<a href="#">UNDESA</a>
Environment		<a href="#">Environment and Gender Index</a>	<a href="#">Environment and Gender Index</a> , IUCN

#### 1.4 Conceptual framework: the link between Gender and ENR

Indicators in ENR are used to measure access to and consumption of natural resources. The indicators can be gender disaggregated in order to measure whether access varies by gender and whether the impact of ENR varies by gender. Understanding the social structures, context, current practices and opportunities in the ENR sector is important for planning on how to sustainably use environmental and natural resources and mitigate the impact of climate change. Also, understanding the differences in needs, roles and responsibilities between men and women especially with regards to the ENR sector paves the way for tailored interventions in the sector.

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<sup>6</sup> The relevance of an indicator is assessed both for relevance to the 4 sectors selected for the Malawi IHS as well as the availability of data for Malawi in the identified dataset. For most of the indicators in the identified dataset in annex 1 data is available for some countries for particular indicators.

The type of data available is assessed on whether there is qualitative or quantitative data available and whether these have been obtained from primary or secondary sources. With this backdrop, data is assessed to ascertain whether adequate information is collected and also the method used for collecting such data is adequate to capture the gender dynamics in the ENR sector.

Understanding the gender and environment nexus is important for this assessment. Both women and men are consumers, exploiter and managers of natural resources but women have unequal access to and control over environmental and natural resources. This includes conventional ownership; land tenure and inheritance right but also access to and use of common pool environmental and natural resource assets. This has implications for the management of ENR. Also, poor management often referred to as unsustainable management of ENR may affect poor women more as they often depend heavily on ENR for their livelihoods. For instance, the use of fuel wood and the lack of clean renewable energy may lead to more time being spent collecting wood and indoor air pollution both of which has negative implication on women's health and the time available to spend on subsistence activities and income generating activities. Also, degradation of forests, watersheds, foreshores and agricultural land has severe effects on women as they depend heavily on the natural environment to perform their daily household maintenance tasks. Women are usually the ones engaged in household subsistence activities, collection of water, herbs for medicinal purposes and wood for fuel, construction, tools, baskets and other materials. Women are also generally involved in the management, maintenance and conservation of these resources for collective and community consumption and often have detailed knowledge of their local environment. Collecting data and analyzing such data to provide evidence for understanding these seemingly simple but often neglected relationships is necessary for poverty reduction, sustainable natural resource management and increased gender equality. The information and facts below provides some of this useful, yet complex, linkages and underscores the importance of collecting data to show evidence to inform policy:

- Women in the developing world are responsible for 60-80% of food production and constitute 50-90% of agriculture labor force
- Bringing yields on the land farmed by women up to the levels achieved by men would increase agricultural output in developing countries between 2.5-4%. Increasing production by this amount could reduce the number of undernourished people in the world by 12-17%
- Countries where women lack any right to own land have on average 60% more malnourished children and lower proportion of the population has access to safe drinking water
- Studies have shown that increasing women's access to and control over natural resources in development planning and budgeting can have a positive impact on sustainability, economic growth and development.

## 2. Results

Gender-sensitive indicators are developed based on gender-disaggregated data. The data can be either sex-disaggregated data (this is quantitative data giving information about differences between men and women) or qualitative data to inform on aspects of gender differences in a particular sector. The results of the assessment of the IHS and the selected data sets in annex 1 are presented below.

### 2.1 What type of data is available

The Malawi IHS is conducted every 5 years and the current IH survey under review was conducted from March 2010 to March 2011. The main objective of the survey is to provide timely and reliable information on welfare and socio-economic indicators. The survey also provides data to enable the review of the country's development strategies.

The IHS3 consists of four questionnaire instruments; the household questionnaire, the agriculture questionnaire, the fishery questionnaire and the community questionnaire. Brief information on data collected by each of these questionnaires is presented below with comments on gender-ENR specific data collected.

**Table 2: Coverage of the questionnaire instruments for the HIS3 and other datasets**

Questionnaire instruments/data type	Coverage	Gender-ENR specific data collected/missing
Household questionnaire	It encompasses economic activities, demographics, welfare and other sectoral information of households and covers a wide range of topics, dealing with the dynamics of poverty (consumption, cash and non-cash income, savings, assets, food security, health and education, vulnerability and social protection)	Module E on time use and labour: This module collects information on hours spent yesterday collecting water and wood; hours spent in the last 7 days spent on agriculture and non-agriculture activities; type of primary and secondary work, employers and wages over the last 12 months; participation in unpaid apprenticeships, casual (ganyu) labour, and other unpaid labour over the last 12 months.
Agriculture questionnaire	The agriculture questionnaire allows, among other things, for extensive agricultural productivity analysis through the diligent estimation of land areas, both owned and cultivated, labor and non-labor input use and expenditures, and production figures for main crops, and livestock.; <i>it is also possible to</i>	See table 7, on pages 18 to 19 of the Basic Information Document of the IHS3 for an extensive explanation of the modules for the agriculture questionnaire. <b><i>No reference of gender sensitive data collected is made</i></b>

	<i>disaggregate the data by gender and main geographical regions</i>	
Fishery questionnaire	Collects information on status of fishing months, time allocation to fishing including fish processing and fish trading, ownership of fishing activities and owned fishing equipment and purchases and sales associated with the household's fish trading activities.	Collecting fishery information on value added and trading beyond just fishing creates the opportunity to collect information on both men and women's engagement in the fishing sector <sup>7</sup> .
Community questionnaire	The instrument gathers information on a range of community characteristics, including religious and ethnic background, physical infrastructure, access to public services, economic activities, communal resource management, organization and governance, investment projects, and local retail price Information for essential goods and services.	Data is collected on the age, sex etc of the informants but if most of the respondents are male, as often is the case based on the categories of informants, information collected will be largely gender biased.  However, collecting primary work activities of community members in module CE of this questionnaire creates the avenue for data to be collected on men and women's role in the community if equally administered to male and female informants.
<b>OTHER DATA BASES</b>		
Access to land <a href="http://stats.oecd.org/Index.aspx?DatasetCode=GID2">http://stats.oecd.org/Index.aspx?DatasetCode=GID2</a>	Genderindex measures ownership rights which covers women's rights and the de facto access to several types of property. This includes women's access to land measuring women's rights and de factor access to agricultural land.  Score based on women's legal rights and defacto rights to own and/or access agricultural land. Value based on the following scale: 0: 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 1: Women have no/few legal rights to access or own land or access is severely restricted by discriminatory practices	0=full access and 1-impossible access and Malawi scored 0.5; the score is the same for women's access to bank and access to other property;  <i>The dataset measures gender inequality in institutions and not in gender outcomes</i>

<sup>7</sup> The raw data needs to be analyzed further to see if the proposed coverage of the questionnaire is fully covered in the data collected. At this stage, this report notes that a provision to capture such data is made but further assessment should be carried out to ascertain the actual data collected.

Time spent collecting wood for fuel <sup>8</sup>	Data is collected on (i) Women and men engaged in firewood and water collection and average time burden (ii) Time spent cooking and near a fire- <i>data for very few countries mentioned</i> (iii) Involvement of women and men in preserving the environment- <i>only regional level data</i> and (iv) Share of women in national coordinating body for implementation of UN Convention to Combat Desertification- <i>no data for Malawi</i>	Data not sufficiently disaggregated.  Solid fuel use data is per household and not gender disaggregated;  missing value for important data on percentage collecting firewood  Households using solid fuel for cooking in Malawi-about 80%
Environment and gender index	The EGI <sup>9</sup> assesses the conditions for gender equality and women's empowerment in the environmental arena using 27 indicators divided into 6 categories. The categories are (i) livelihood (ii) Ecosystem (iii) Gender based rights and participation (iv) Governance (v) gender based education and assets (vi) country reports activities <sup>10</sup>	The first index to bring environment ( <b>not ENR</b> ) and gender variables together only in 2013;  Malawi ranked 36 out of 72 countries  Malawi's regional ranking is between 3-7 for the 6 categories out of 20 countries in Africa selected for this study <sup>11</sup>

**Relevance:** datasets and data reviewed for this study are all relevant for gender and ENR even though they are not necessarily collected to depict gender-ENR situation with the exception of a few: the EGI. Data can be used to track progress on gender-ENR and can be used to inform policy formulation. The accessibility of the data is however assessed as fair given that some datasets require institutional level registration before use also that for some datasets, especially those collected on a global scale, country specific information is not available. It is not clear, and does not seem apparent that gender needs are assessed before the collection of data reviewed for this report. There is also little information on the dissemination of data, again, with the exception of the EGI.

**Effective:** The reports, document and datasets reviewed contained no information on how the availability of such data has influenced policy formulation. The most

<sup>8</sup> Module E of the IHS3, according to the coverage of the questionnaire is more likely to provide more country specific data on time spent collecting wood for fuel as this is one of the categories of data collected.

<sup>9</sup> The approach of the EGI is to (i) expose the inequalities that exist for women around the world in the areas of biodiversity, climate change and disasters, energy, fisheries, agriculture, and other environment-related sectors; and (ii) demonstrate that women are agents of change and leaders in the environmental arena, and to open opportunities that advance their role. See the EGI (2013) pilot, page 15

<sup>10</sup> See page 25 of the IUCN/EGI report for a full list of the 27 indicators for the 6 categories stated here.

<sup>11</sup> See page 96 for Malawi specific data on the EGI (2013) pilot report.

extensive data set reviewed, as it relates to gender-ENR is the EGI which was only launched about a year ago (November 2013) giving little time to assess the effectiveness of the use of such data. The EGI data, unlike the IHS however provides an option for feedback from data users.

**Efficiency:** The cost of providing data reviewed for this study is not readily available and has not been extensively probed to assess the efficiency of data collected.

On **impact and sustainability**<sup>12</sup>, the data collection modules were developed with extensive consultations with stakeholders in preparing for the IHS<sup>13</sup>. This gives an impression of strong national ownership and engagement in the data collection process, which can be used as an indicator that the process can be sustained. However, apart from the IHS and some data sets that uses information from the IHS data, most of the other datasets assessed comprise data collected by organizations or institutions outside the country. Sustainability of such processes cannot be ascertained.

### **Lessons Learnt**

**Time spent collecting wood for fuel** is an important indicator for which, when data is collected can show the true interaction between gender and ENR. The UNDESA data on 'time spent collecting wood for fuel' is shown on chapter 7 of the report and data is indicated mostly by regions in the world except in few cases.

**Relevance of available data for the gender-ENR link:** The IHS data collection instruments contained elements of gender and ENR especially in the household questionnaire (time use data on women and environment sector related activities) even though the IHS is not considered or intended to be gender-ENR dataset.

### **2.1 Observed gaps in the data collected and assessed**

Some notable gaps in the datasets assessed are discussed below:

**Units of data collection:** Overall, the unit of analysis of the IHS and the basis on which data was collected was the 'household'. There was no disaggregation of the different types of households<sup>14</sup>. This is a gap in data collected as the phenomenon of female-headed households is now prevalent in many African countries. It is

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<sup>12</sup> The specific questions on sustainability in the framework for this assessment in annex 2 can be best responded to through direct interaction-primary data collection- with the institutions.

<sup>13</sup> World Bank LSMS Team, Statistics Norway, the UK Department for International Development (DFID), the Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), the Millennium Challenge Corporation – Malawi Account (MCC-MA), the Department of Forestry, the Department of National Accounts, and the World Fish Center (WFC).

<sup>14</sup> See pages 14-16 of the IHS3 Basic information document for the contents of the household questionnaire.

assumed that responses from female and male headed households will be different for the same question. Also, because the African culture automatically recognizes the male as the head of households, households that may be 'practically' headed by a female either by the female being the only physically present parent or is the bread winner, are still likely to have the male respond to questions giving wrong information about the households. This bias in data collection is in itself a means of creating further gender inequality, as the voices of women will continue to be in the margins. ***The IHS3 report defines the household head as the person who makes economic decisions in the household.*** Decision making of all types in the household is in the region typically the responsibility of the male and in some cases of the male child. However, household heads were further disaggregated in the report showing that 75% of the households are headed by male but it is not clear as to how many male and female headed households provided information for the data collected.

Even though in the IHS household questionnaire, module B on household roster collects information on individuals living in the household, their gender, age, relationship to the household head etc, it still did not distinguish, in the analysis of the data between male and female-headed households. The household questionnaire in module H collects data on food intake by adults but does not disaggregate adult male and adult females; similarly the data collected on food and non-food expenditure in the household does not distinguish between who is making such expenditures.

Similarly, the community questionnaire assumes community members are a homogenous group. This assumption is consistent in the dataset even when data is collected, in module CI on communal resources owned by the community and how the rules of access are determined. There is no mention of data collection on power relations among community members and who benefits the most from communal resources.

**Little or no disaggregation of data by sex:** the agriculture questionnaire of the IHS, in all its twenty-one modules, does not include gender specific questions for the data collected. Even when there is implicit disaggregation as indicated by the data collection tool it is not apparent that data collected will be gender responsive. Module C, for instance, of the IHS agriculture questionnaire collects information on agriculture plots owned and/or cultivated by household members but it is not clear whether the members are disaggregated and information collected from each of them. It is possible that male only or female only household members will be spoken to during data collection creating a bias in data collection.

**Little or no link to gender-environmental and Natural Resources in data collection:** the data collected in the IHS3 does not link activities to ENR especially with regards the agriculture module. The collection of fishery information could be an entry point, in the IHS3 fishery questionnaire to merge the gender and ENR issues. This is not apparent in the fishery questionnaire. However, even though the IHS3 dataset and other datasets has been assessed to observe the gender-ENR links

for Malawi, it is important to clarify that data in the IHS3 and some of the other datasets are neither collected nor intended for showing the relation between gender and ENR. It should therefore not be surprising that there will be quite a number of gaps or missing data in the data sets assessed.

**Biases in interviewee selection:** the error in data collection of using the unit of analysis of households is further compounded by inadvertently selecting male respondents for most questionnaires. The Community questionnaire of the IHS3 was administered mostly “to a group of several knowledgeable residents such as the village headman, the headmaster of the local school, the agricultural field assistant, religious leaders, local merchants, health workers and long-term knowledgeable residents”. Most of the people in these categories to which the community questionnaire is administered are likely to be male with the exception of health workers who are most often females.

**Missing relevant gender and ENR specific data options:** the community questionnaire of the IHS3, especially for module CC which is on basic information on the community misses the opportunity to collect relevant information on gender based violence in the community and how this affects or is affected by allocation of natural resources. Module CH collects information on community needs, actions and achievements and suggests some categories of needs<sup>15</sup> with no mention of women specific or environment specific needs such as day care or time saving services that will benefit women or clean air or efficient cooking methods that will save the health of women.

**Ambiguous definition of variables:** collecting data to reflect the true nature of gender and ENR should clearly define variables and not introduce ambiguity. The women’s access to land, for instance measured by OECD does not provide an explanation of what access means in this case and does not extend further to explain ownership. Ownership of land and other forms of property especially the ‘free will’ to trade and exchange such property is more important in securing economic livelihood for women than mere access. Even though access is not defined in the data, if it is assumed to mean the ability to use land then more relevant information is not collected to determine women’s control over resources. The data also indicated ‘how much or how less access’ women have to land but does not say ‘how much of land’ women have access to. In actual fact, one cannot tell from such data whether women in practice do own land or can easily use land if they have to. It only states what institutional mechanisms-laws, norms, regulations etc- exist for women to access land is not sufficient.

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<sup>15</sup> (road and bridge maintenance/construction, school and health center improvement, piped water/boreholes/wells and maize mills construction, orphanage construction, public transportation and law enforcement improvement and the addition of agricultural/fishery/livestock extension services) that community members have expressed during the last 5 years.

Also, land is only one form of natural resource, which has been the subject of discussion with regards women's access to it for a very long time now. Data collection on access to other forms of environment and natural resources should now be considered bearing in mind the debate in recent times on sustainable development but also considering the significant role women play in using and preserving the environment.

**Absence of qualitative dataset:** for all datasets assessed, apart from the explanation of variables, there is little qualitative data/information collected to either back up the quantitative data or provide further explanation for the results. For example, the data on access to land from the OECD SIGI which allocates a value of 0.5 to Malawi did not provide further explanation on the cultural barriers to women's access to land that are likely to be prevalent in the country. Also, with the exception of the UNDESA data on "time spent collecting wood for cooking" providing detailed explanation on the role of women in ENR and highlighting some of the important missing data<sup>16</sup> on the link between women and ENR, most other data sets provide numerical figures with little or no explanation on the gender links.

**Insufficient evidence on available data:** the data on "time spent in collecting firewood" provided by UNDESA for Malawi has a missing value on the percentage of men and women collecting firewood and the data for "average time burden" in population measured in minutes for women (19) and men (3) only shows the time differential spent between the genders but provides little evidence to make inference on opportunity cost of time spent in collecting firewood.

**Lack of country specific data in datasets** - Also, even though some datasets are increasingly available, they most often do not contain data for some countries and most often these are countries in Sub Saharan Africa. So the mere availability of a dataset does not automatically imply the availability of data for most countries in Africa. This is further compounded by datasets or sources of data that provide regional aggregated data. This is the case with the UNDESA data analyzed for this report where most of the data is presented in either regional or sub regional categories. This provides little insight on the country specific situation.

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<sup>16</sup> Including the lack of data to assess the capability of women and men to protect the local natural resources, environment related practical knowledge and sex disaggregated data on participation in the management of local natural resources such as water, forests etc.

## 3. Conclusions and recommendations

### 3.1 Conclusions

The IHS3 data for Malawi and identified datasets indicate that information about women's role and access in ENR is not comprehensively collected and reported. Sex-disaggregated data with broad country coverage in sectors such as forestry, agriculture, water, energy, marine, disasters, infrastructure, etc. rarely exists. Even where data is collected, it is not collected for the purposes of gender-ENR linkages. However, data can still be used, to some extent, to analyse gender-ENR linkages but not sufficient to capture the entirety of such linkages.

More statistical information on the links between gender and ENR is needed. There is a lot more data on gender in general and some more data is increasingly being sex disaggregated but from this assessment and several other studies, data on the link between gender and ENR is limited. This assessment confirms the claim by the International Union for Conservation of Nature (IUCN) in their pilot study/report on "Environment and Gender Index" (EGI) in 2013 that even though there has been progress in the collection and use of sex disaggregated data, environment data disaggregated by sex is still not common practice. Time use data for example are largely missing for many developing countries, even though poor infrastructure, natural hazards are prevalent in the region, which increases work burden differential between men and women. Data on changes in men and women's workload as a result of droughts, floods, deforestation etc for example are rarely available in national statistical data sets. Some case studies and project documentation may be the few sources where such data and information is available. Obtaining sex disaggregated data on the effects of natural hazards on other human dimension-education, economic security, health etc- is difficult (UNDESA, 2010)

Also, a significant finding of the IUCN/EGI study/report reviewed for this assessment is that an increase in a country's environmental performance measured by the Environment Performance Index<sup>17</sup> (EPI) did not imply a better EGI score or ranking. Explained differently, this means an increase in a country's environment performance does not imply an increase in the levels of gender equality and women's empowerment in the environmental sector. Targeted and deliberate strategies have to be adopted to ensure an increase in gender equality and women's empowerment in ENR and a starting point is the provision of data or creation of an index that stimulates the collection of such data.

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<sup>17</sup> This index measures how well countries perform high priority environment issues in two broad policy areas; viz, (i) protection of human health from environmental harm and protection and (ii) protection of ecosystems and ranks the countries. See <http://epi.yale.edu/>

### 3.2 Recommendations

Some preliminary conclusions from the findings of the assessment are important in making the basis for the recommendations. From analyzing the 4 data collection instruments of the IHS3, it is clear that there is no deliberate effort to integrate gender and ENR in data collection in Malawi. This is also the case for other international data collection instruments with the exception of the EGI dataset. Some recommendations are proposed below to PEI-Malawi and PEI Africa on the potential areas of support to the Government in bridging the gender-ENR data gap as follows:

- ***Influence the formulation of data collection tools:*** data collected is a direct correlation with the instruments designed. Attempting to analyse data already collected, most often for other purposes, for gender-ENR linkages can be challenging and may not produce the desired outcome. PEI-Malawi should therefore engage with relevant statistical collection institutions/bodies for the incorporation of gender-ENR concerns in data collection instruments. This engagement should be formalized through institutional partnerships.
- ***Training in the collection and analysis of data on gender and ENR:*** the PEI-Malawi proposed data collection institutions partnerships should be backed by the provision of training and capacity building on the collection of gender and ENR data. With the extensive knowledge of international instruments and expertise on the subject matter, the PEI programme in Malawi can use this strategic resource in providing reference materials on how gender-ENR data can be collected and analysed.
- ***Increased public awareness about the important role of gender and ENR statistics in socio-economic life and development process of Malawi.*** Data collected will be of no use if it is not used. So the availability of data must be backed by a strong dissemination strategy to ensure data usage. PEI-Malawi should consider supporting this process with the statistics office in Malawi. This report can serve as an initial basis for engaging with relevant institutions. Also, dissemination through launching programmes, or extraction of country specific data in global datasets can serve as initial activities in disseminating existing gender-ENR data.
- ***Contribute to the promotion of collection, analysis and dissemination of gender- ENR data through a pilot survey-*** Given the contribution of the PEI programme in Malawi and some of the achievement until date, a pilot gender-ENR data collection should be considered in one of the sectors or sub sectors. This will provide some clarity on the process and outcome that can be achieved and serve as a benchmark in influencing broader national processes.

- ***Collect more qualitative data or provision of background information on quantitative data collected:*** Understanding the human element of gender relations in general and gender and ENR in particular through data requires telling the background story which is often better capture through qualitative data. Collecting such data, especially on a large scale can be challenging but not impossible.

### Annex 1. Available data organised by thematic areas: summarised for the nine PEI Africa countries

Indicator/Survey	Year	Country	Link/Survey
Case studies on energy		Kenya, Mali & Tanzania	<a href="#">Energia Africa</a>
Land ownership		Burkina Faso, Kenya, Malawi, Mali, Mauritania, Mozambique, Rwanda & Tanzania	<a href="#">DHS Program</a>
		Botswana, Burkina Faso, Kenya, Malawi, Mali, Mozambique, Rwanda & Tanzania	<a href="#">Gender and Land Rights Database</a>
Access to land	2009	Botswana, Burkina Faso, Kenya, Malawi, Mali, Mauritania, Mozambique, Rwanda & Tanzania	<a href="#">Gender, Institutions and Development Data Base</a>
Productivity	2010-2011	Malawi & Tanzania	<a href="#">LSMS-ISA</a>
Integrated survey on agriculture LSM	2010-2011	Malawi & Tanzania	<a href="#">Living Standards Measurement Study- Integrated Surveys on Agriculture</a>
Third Integrated Household Survey	2010-2011	Malawi	<a href="#">IHSN catalogue</a>
Vulnerability Analysis and Nutrition Survey	2012	Rwanda	<a href="#">IHSN catalogue</a>
Hours worked in agricultural domains	2000-2013	Botswana, Burkina Faso, Kenya, Malawi, Mali, Mauritania, Mozambique, Rwanda & Tanzania	<a href="#">ILO</a>
Land tenure, agricultural productivity and the Environment	2009	Kenya	<a href="#">IFPRI</a>
Perception of pollution of mangroves due to increased urban sewage production	2008	Mozambique, Kenya, & Tanzania	<a href="http://dx.doi.org/10.1016/j.gloenvcha.2009.01.001">http://dx.doi.org/10.1016/j.gloenvcha.2009.01.001</a>
Perceived risk index	1999	North Kenya	<a href="http://www.sciencedirect.com/science/article/pii/S0305750X0000053X">http://www.sciencedirect.com/science/article/pii/S0305750X0000053X</a>
SEPL indicator	2011-2012	<a href="#">Malawi</a>	COMDEKS

Time use survey		Various	<a href="#">Systems of National Accounts</a>
Time spent collecting water and the distance from a water point		Burkina Faso, Kenya, Malawi, Mali, Mauritania & Mozambique	<a href="#">UNDESA</a>
Time spent collecting wood for fuel		Malawi + Sub-Sharan Africa regional	<a href="#">UNDESA</a>
Social Accounting Matrix	1998-2001	Tanzania	<a href="#">IFPRI</a> available on demand
National Bureau of Statistics of Tanzania	2012	Tanzania	<a href="#">National Bureau of Statistics of Tanzania</a>
Chemical impacts on health	-	This index is organized per chemical and not by country	<a href="#">Screening Information Dataset (SIDS) for High Volume Chemicals</a>
<u>Environment and Gender Index</u>	2013	Malawi (36), Tanzania (44), Burkina Faso (47), Kenya (50), Mozambique (55), Mali (64), Mauritania (70)	<a href="#">Environment and Gender Index</a> , IUCN
MPI			<a href="http://www.ophi.org.uk/multidimensional-poverty-index/">http://www.ophi.org.uk/multidimensional-poverty-index/</a>
Environmental Governance	1981-2014	Rwanda	<a href="#">World Value Survey</a>
Rural and urban income	1992-2006	18 countries in Africa	<a href="#">RIGA FAO database</a> have to request data

## Annex 2: Framework for Gender-ENR data assessment<sup>18</sup>

Assessment guide	Questions	Comments
Relevance	Is the gender data collected in line with national/sectoral need and priorities	National gender policy priorities; NDP priorities, PEI programme priorities, etc.
	Can programmes and projects easily access the data	
	Is gender data needs assessed before the collection of the data	
	Is data collected analysed and interpreted for ease of use?	
	Is data disseminated? How?	
Effectiveness	Has the use of the data led to the development of more gender responsive policies/programmes?	Policies produced after the availability of gender- <b>ENR</b> data.
	Is the data being used to highlight the differences of impacts of programmes on men and women?	
	Is feedback from users assessed and results incorporated in subsequent data collection exercises?	
Efficiency	What is the quality of the data in relation to the cost of producing the data?	
	To what extent has the data producing institution utilized information from the PEI to inform the collection of gender statistics	
	Does the data producing institution have the requisite staffing and experience to produce gender statistics?	
Impact	Are long term results likely to be achieved as a result of gender- <b>ENR</b> data?	Results of indicators on gender- <b>ENR</b>
	Is more gender aware questions included in other surveys/censuses?	
	What is likely to happen on gender data as a consequence of the PEI programme in	

<sup>18</sup> It may not be possible to address all the questions stated in this framework because the assignment is a quick assessment but also because some of the responses require going beyond the current methodology-a desk review-. The questions are however stated to capture the full framework, subject to further revision, that can be used in similar but more extensive assessments. Also, one of the purposes of the assignment is to propose a complete methodological framework for future assessments on gender and ENR data but due to the scope of the current assignment only parts of this methodological framework is being tested.

	Malawi?	
Sustainability	Are counterparts willing and able to continue the production of gender- <b>ENR</b> data?	
	Have the collection of gender- <b>ENR</b> data been integrated into current practices of counterparts institutions-administrative data collection	
	Are there effective partnerships established for the collection of gender- <b>ENR</b> data?	
	Does the institution have adequate capacity and tools for gender-ENR data collection?	
Lessons Learnt	What are the key strengths demonstrated by the collection of gender-ENR data?	Direct discussions with stakeholders: data collection institute, data users etc.
	What are the key weaknesses or challenges in collecting such data.	
	What lessons (from positive and negative findings) can be drawn for the future?	
	What lessons have been indicated by the different stakeholders	

### Annex 3: Some challenges in assessing/collecting gender-ENR data

Some challenges were observed in the course of undertaking this assessment. Some of these are noted below to serve as lessons learnt for future assessments.

The Integrated survey on agriculture: the link provided for this data gives information on how the survey was conducted and in particular provides the questionnaire for the survey. Actual data was not observed on the link. Assuming that the questionnaires for the survey will all generate responses required for data on agriculture, the survey instrument is analysed for this report. *From the survey instrument, data is required for many fields but of particular relevance is the access and ownership of land.*

Also extensive literature review is required, for most of the datasets, in understanding the data before the assessment. In some cases, data is not fully explained making the assessment difficult if not a guestimate. For instance, the data on women's "access to land" only provides a value for Malawi and vaguely quotes the range of the value. There is no explanation showing as to the factors behind the value allocated to the country or how that value is reached at.

Understanding the data before making the assessment is important. The SIGI for instance which is a new form of gender inequality data measures institutions and not the outcome based on gender. Additional time is required in future to first understand how the data is collected and interpreting the figures before a thorough assessment can be made.

Some datasets are not readily available. They require registration to login in. The ILO/DHS-Demographic and health survey dataset is an example in this case. Even though this dataset was initially selected at the beginning of the assessment this restriction could not make it possible to include it in the assessment.

#### Annex 4: Recommendation for the extension of the assessment on gender-ENR data in Malawi

The quick assessment on gender-ENR dataset in Malawi has generated more interest on the provision of gender responsive gender-ENR datasets. Some recommendations are therefore being made in this section for a further extension of the study and for more detailed and rigorous analysis of the Malawi data sets to serve as the basis for engaging with data collection and producing institutions in Malawi.

Also, this report being a rapid assessment and a report that proposes a framework for a broader gender-ENR assessment, all the comments provided on the first draft cannot be incorporated within the time frame of the assignment. A recommendation therefore is for PEI-Malawi to consider a full assessment of the HIS and related data sets using the proposed framework in annex 2 and also consider including the following comments in the ToRs of the proposed extensive assessment as follows:

- Inclusion of some information on environment and natural resources (some statistics -access to land, water, energy forests). This will provide a rigorous overview of the situation- gender /ENR linkages in Malawi and provide a more relevant situational analysis for the assessment.
- Some attention should be given to the assessment of administrative data, such as number of water points, the use of LPG stoves etc since these are necessary for producing gender-disaggregated and gender-responsive statistics
- Analyse ALL relevant datasets. Some of the data sets in annex 1 of the report could not be analysed even though considered to be relevant because of the time required to navigate through the data set. This is the case for the ILO data ([ILO](#)) on Hours worked in agricultural domains, the World bank dataset ([LSMS-ISA](#)) on productivity and the DHS data set which requires registration to access the dataset. Accessing this dataset through UNEP is recommended for the extensive assessment.
- Analyse the Malawi IHS3 further to assess if reference is made to the gender role analysis of household heads and economic implications.
- Analyse further the dataset on “access to land” to assess if there is a link to inheritance rights in Malawi? This might be particularly important in Malawi because of HIV/AIDS.
- With the availability of data on women and access to land, other data sets on women’s access to other forms of environment and natural resources should be researched and if available they should be assessed; if they are not

available, especially in Malawi, concrete recommendations with methodology on how the IHS3 can collect such data should be made.

- Provide detailed guidance on some of the solutions to the suggested shortfalls in the data with specific recommendations on how, for instance, the IHS questionnaires can be improved to ensure the collection of gender-ENR data.

## REFERENCE

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