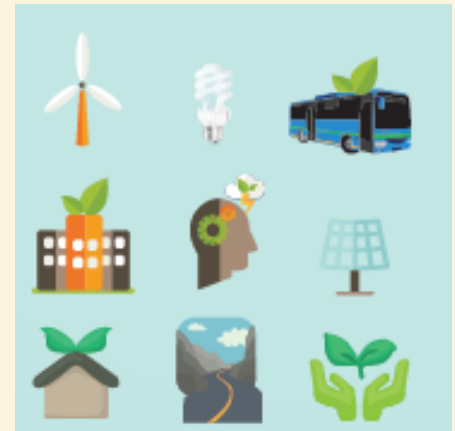




# *The Cost of the Gender Gap in Agricultural Productivity*

## *Gender Global Environment Outlook:*

### **Lessons from Malawi, Tanzania and Uganda**



**EMG Nexus Dialogue**  
High Level Political Forum  
New York, 13-14 July 2017

**Michael Stanley-Jones**  
UNDP–UN Environment  
Poverty-Environment Initiative



**Poverty-Environment Initiative**



UNITED NATIONS

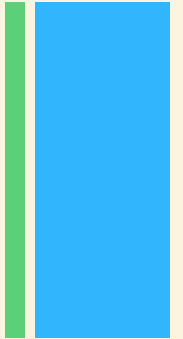
ENVIRONMENT MANAGEMENT GROUP



*"Supporting the 2030 Agenda for Sustainable Development by enhancing UN system-wide collaboration and coherent responses on environmental matters"*

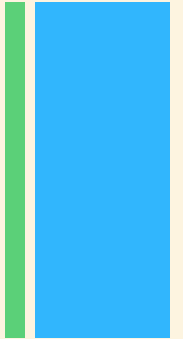


# Global Environment Outlook (‘GEO’)



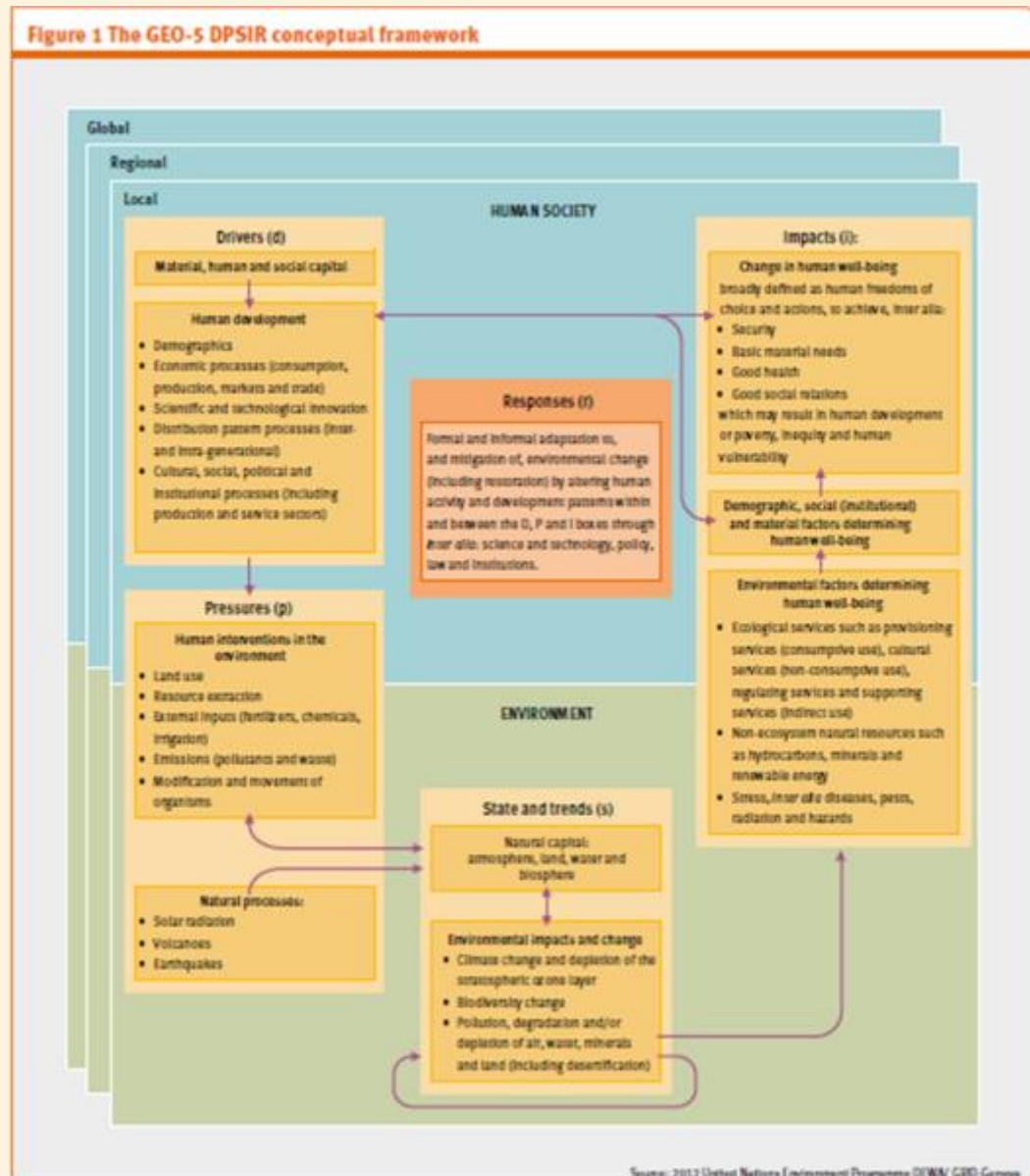
- UN Environment flagship **integrated assessment** of the state of the global environment
- Presents **environmental trends** on air, climate, water, land and biodiversity
- Looks at the **interactions between social, economic and environmental drivers** to assess the **effectiveness of different policy responses** in moving the world onto a more sustainable pathway

# + Sixth Global Environment Outlook



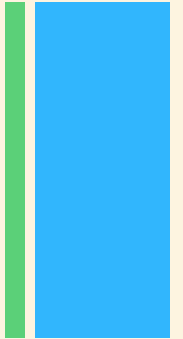
- 5<sup>th</sup> Global Environment Outlook (GEO-5) published in 2012
- Sixth Global Environment Outlook - ***Healthy People, Healthy Planet*** – due to be published in 2018
- Among the cross-cutting themes of GEO-6: ***Gender*** and ***Equity***

# + GEO-5 Framework





# Gender in the Millennium Development Goals



- Millennium Development Goals gender target areas limited:
  - Maternal mortality and reproductive health
  - Primary and secondary education
  - Decent employment
- Gender targets separate from environmental sustainability goals and targets



# Gender Global Environment Outlook Methodological Model

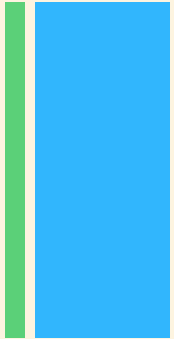
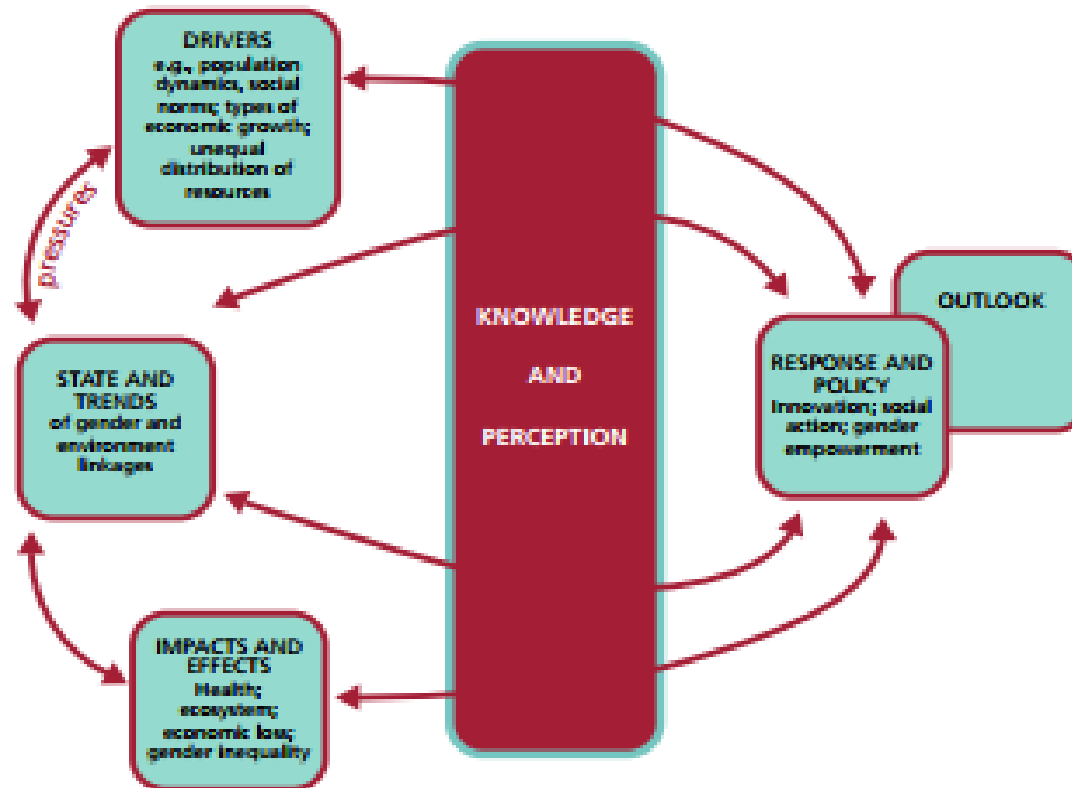


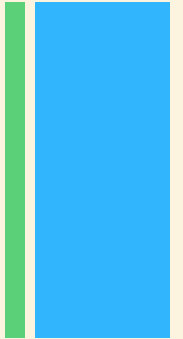
Figure 2.1: GGEO methodological model



Source: Seager (2014)



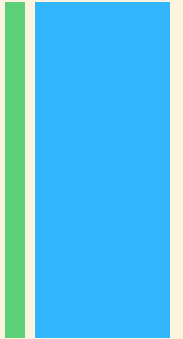
# Gender-and-environment nexus



- The **holistic nature** of the gender-and-environment nexus requires:
  - analyzing different **dimensions of relationships** between humans and the environment
  - establishing **how environmental conditions shape the lives of women and men** in different ways
  - understanding that women and men are not only affected by, but also have **important roles to play in, enabling environmental sustainability**
  - **ignoring these issues** in environmental and climate policies and programmes is **recipe for failure**



# Gender & Equity in Sustainable Development Goals

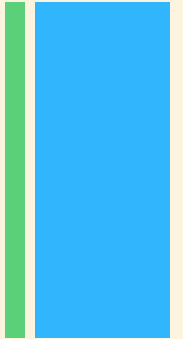


- Includes a specific gender goal (**Goal 5: Gender equality**) and targets
- **Integrates gender targets** with other goals through explicit indicators or gender-disaggregated data and analysis
- Environmental targets with gender and equity components
- Ending hunger, achieving food security and promoting sustainable agriculture (**Goal 2**) depend on **an integrated approach** to environmental sustainability, poverty reduction, social equality and economic growth (**Goals 1, 5, 8 and 13**)





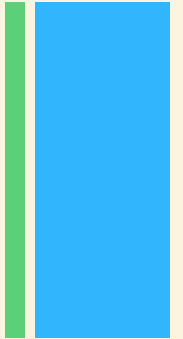
# Agriculture + Environment + Equality = Livelihoods



- The livelihoods for the vast majority of local populations worldwide depend on natural resources
- 43.6% of Africa's land is dedicated to agriculture
- In Africa, agriculture contributes nearly 14.3% of GDP
- Over half the population of Africa (54%) derives its livelihood from agriculture
- 90% of Africa's rural population has agriculture as its main source of income



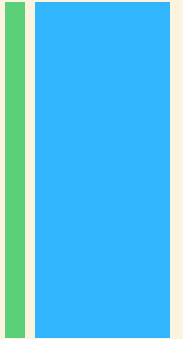
# Gender Global Environment Outlook – Secure Land Tenure



- Almost ½ of agricultural workers in sub-Saharan Africa are women
- Secure land tenure is fundamental to women's economic, social and political empowerment, as well as to increased prosperity for their families and communities
- Security of tenure – rather than ownership per se – that is critical
- Women's participation in local institutions governing the use of natural resources is also critical for their sustainable management



# Gender Global Environment Outlook – Discrimination harms productivity

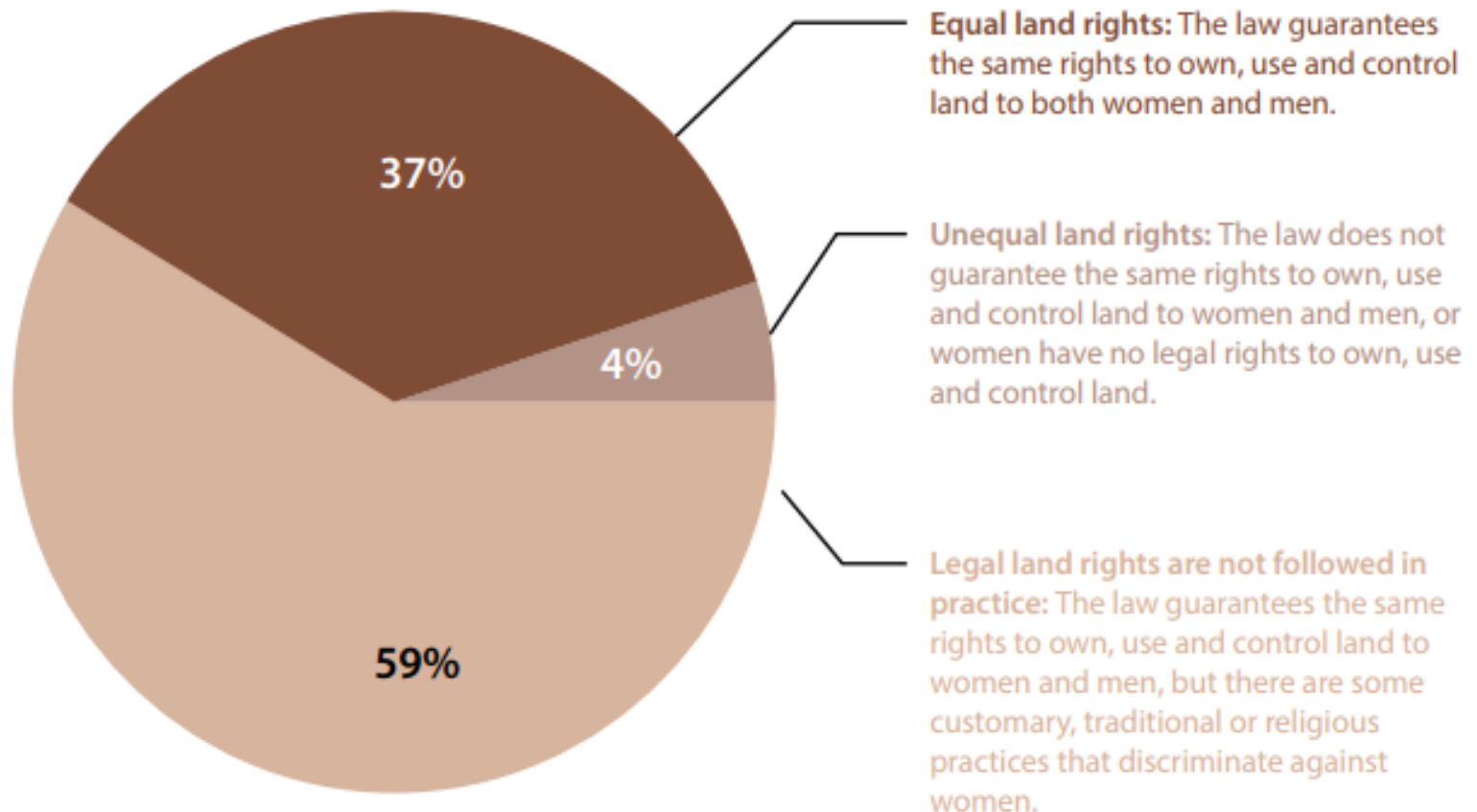


- Persistent restrictions imposed on access to natural resources by certain communities (and groups of people) are examples of the **structural inequalities** and **discriminations** that can potentially destabilize society
- **Productivity of women farmers tends to be lower than that of their male counterparts** due to prevailing inequalities in access to productive resources including land

(UN Women/UNDP/UNEP/World Bank 2015; FAO 2011)

# + Equal land rights (2014)

Figure 1.4: Proportion of countries falling under the three tiers of women's secure access to land



# + Integrated Approach to Agriculture

**Agriculture** is a key sector to advance **poverty reduction, gender equality & food security, climate & environmental sustainability, & economic growth**

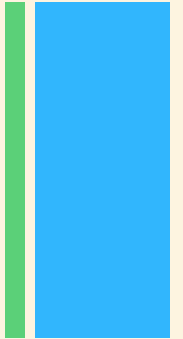
- Productivity below potential yields due to unsustainable land use and climate change
- Productivity among women farmers is lower than men
- Changing climate means that there is a shrinking window of opportunity for action, and it is imperative that climate smart approaches to agriculture helps close the gender gap
  - Inadequate understanding of climate and gender gaps result in gaps not being addressed or targeted by policies and programmes

**- integrated approaches are needed!**





# Gender Global Environment Outlook – Selected Findings

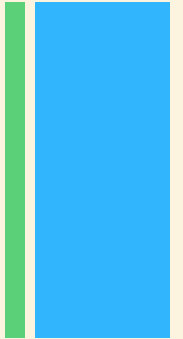


Roles women and men play in **ecosystem functions related to agricultural production** need to be better valued and **integrated in policy and planning**, particularly in

- agricultural diversity
- plant breeding
- pest control
- ecosystem management
- resilience



# Gender Global Environment Outlook – Equal Access



- Gender equality is **essential for improved performance of the agricultural sector** through climate resilience, and thereby to increasing food and nutrition security for all, especially women and girls
- For women farmers to be more productive, they need **equal access to** environmentally and socially **sustainable agricultural inputs, markets**, and (in view of the rapidly changing climate) climate-resilient farming **technologies** and climate **information**

# + Integrated Approach to Agriculture and Gender

## Pathway One: Better Evidence

- Generating evidence through machinery of government
- Consultative and interdisciplinary research
- Strategic dissemination and engagement







# THE COST OF THE **GENDER GAP** IN AGRICULTURAL PRODUCTIVITY

**in Malawi, Tanzania, and Uganda**



UNDP-UNEP  
POVERTY-ENVIRONMENT  
INITIATIVE

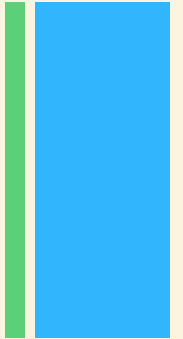


Empowered People.  
Sustainable Progress.





# How can we assess the gender gap?



## Step 1

- Identify the plots managed by men and women and measure the difference in productivity by estimating what they actually produce based on national level data (in value per hectare)
- The difference = the **unconditional gender gap**

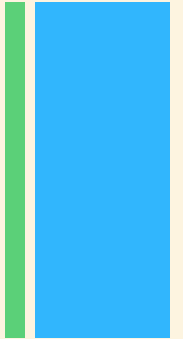
## Step 2

- Look at what would the output be if women produced the same as men
- The difference = the **conditional gender gap**

## Step 3

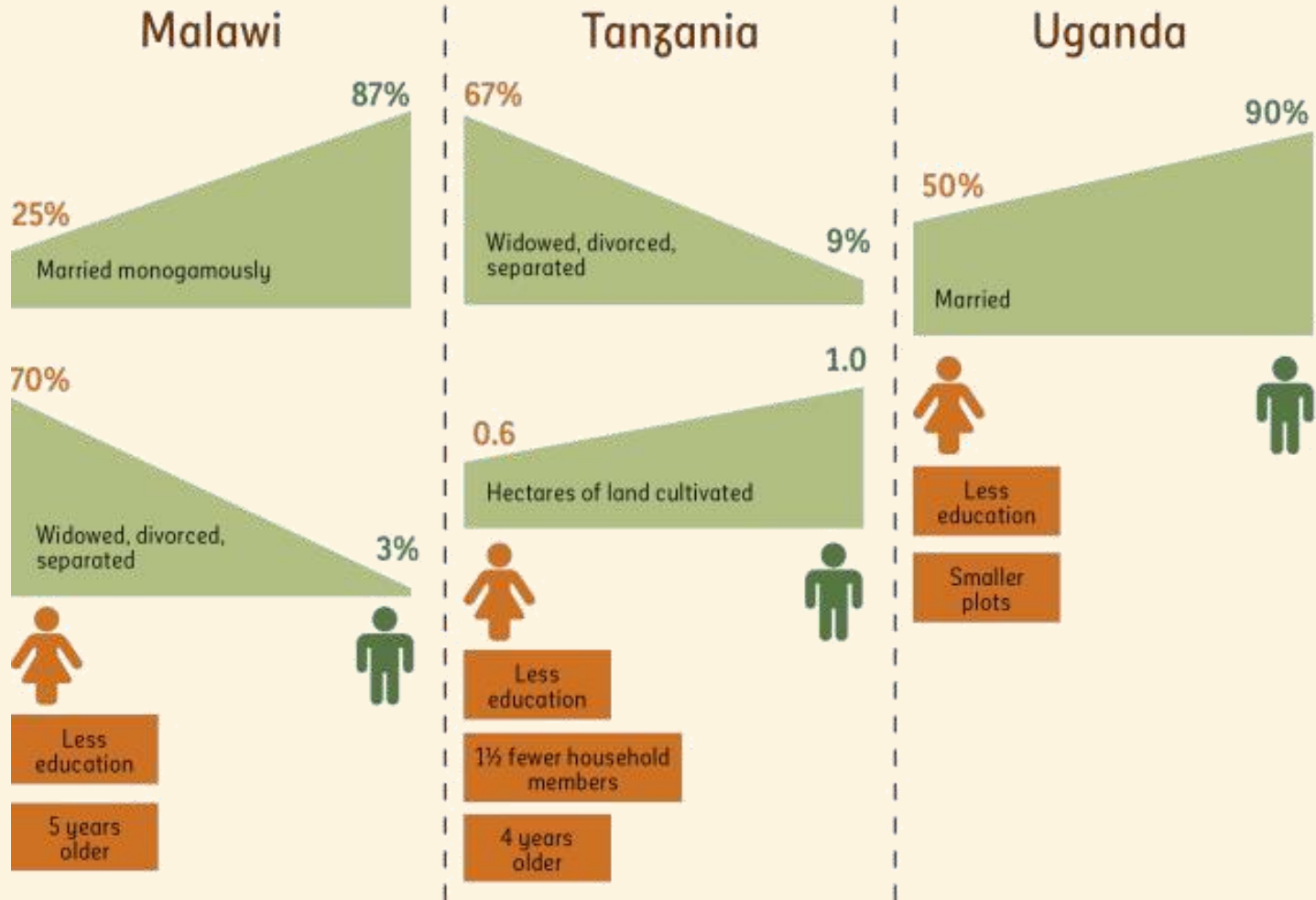
- Lastly, compute the size of the gender gap (in crop output) relative to agricultural GDP and national GDP (using multipliers) and estimate the potential poverty reduction impacts

# + Assumptions & Caveat

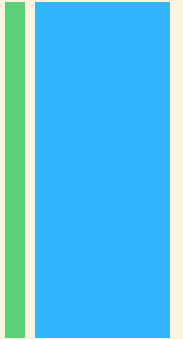


- Overall, these numbers are **conservative**
- The big caveat: These numbers are **gross gains**
- Any **costs associated with policies to close the gender gap are not accounted for**
- Quantifying in terms of GDP and poverty reduction **does not fully account for multidimensionality of poverty**, may miss gains among the social and equity dimensions

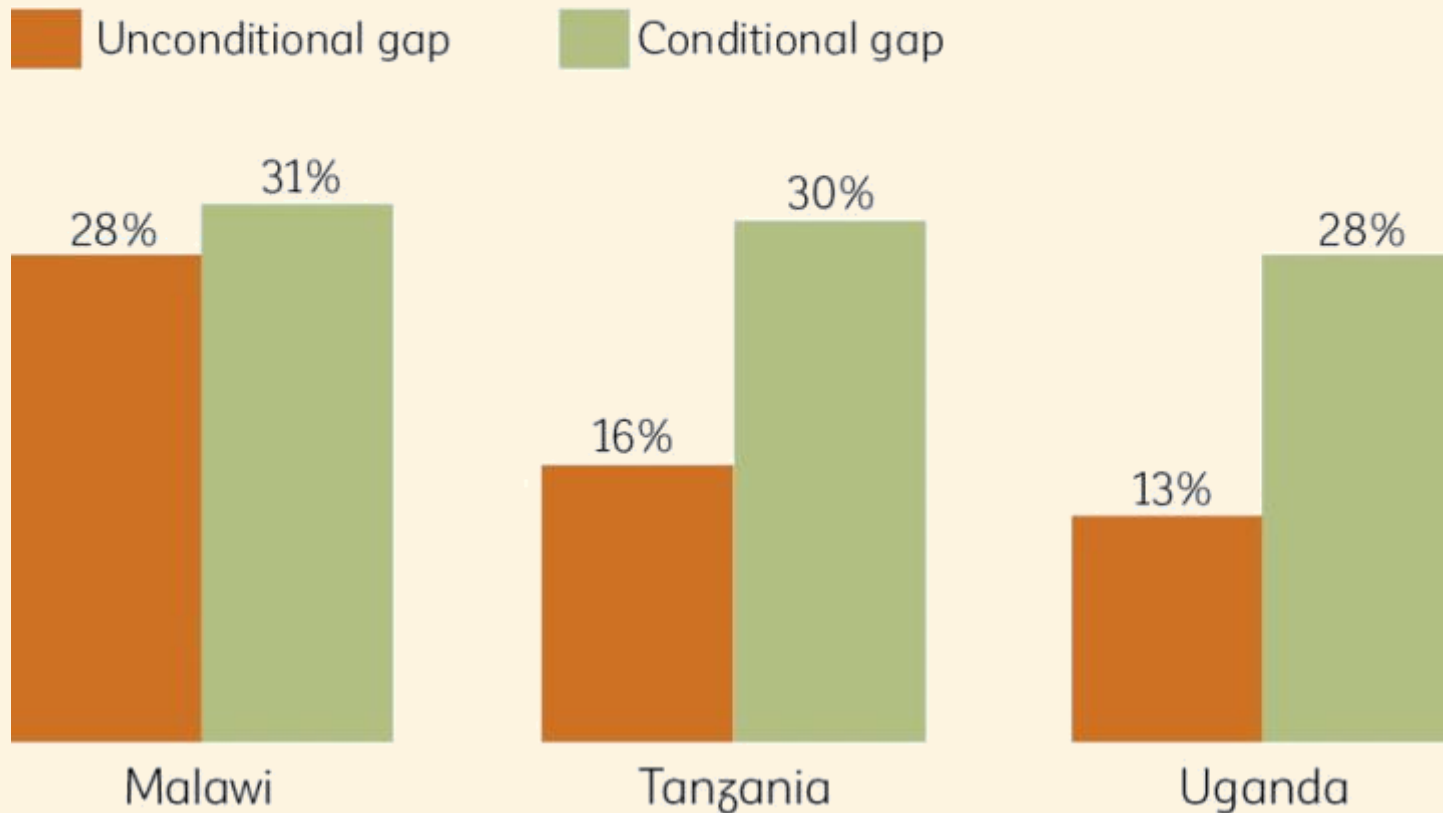
# + Woman Farmers

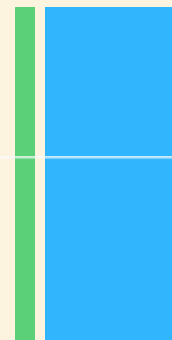


# + Size of the conditional gap - 28% - 31%



## Unconditional and conditional gender gap in agricultural productivity in percentages





## AGRICULTURAL PRODUCTIVITY GAP

## CLOSING THE GAP CORRESPONDS TO

**MALAWI**  
28%

7.3% increase in  
crop production

\$90 million increase  
in agricultural GDP

\$100 million increase  
in total GDP

238,000 people lifted  
out of poverty

**TANZANIA**  
16%

2% increase in  
crop production

\$85 million increase  
in agricultural GDP

\$105 million increase  
in total GDP

80,000 people lifted  
out of poverty;  
80,000 more people  
adequately nourished

**UGANDA**  
13%

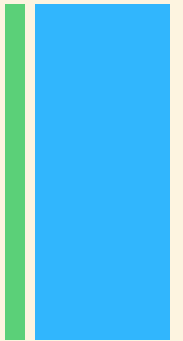
2.8% increase in  
crop production

\$58 million increase  
in agricultural GDP

\$67 million increase  
in total GDP

119,000 people lifted  
out of poverty

# + The annual cost of gender gap



# + Determinants of the gender gap



Determinant	Malawi		Tanzania		Uganda	
	% of Gap	\$ Millions	% of Gap	\$ Millions	% of Gap	\$ Millions
Quantity of male family labor	45.19	45	97.34	102	n.a	n.a
High value-crops	28.43	28	3	0.3	13.3	8.8
Agricultural Implements	17.76	18	8.18	8.5	9.02	6
Pesticide Use	0.97	0.9	12.03	12.6	4.45	2.9
Inorganic Fertilizer use	5.32	5	6.39	6.7	3.04	2
Wealth Index	3.29	3	-0.1	n/a	n/a	n/a



# + What are the main factors that determine the gap in Uganda?

**13.3 % of the gap**



**9% of the gap**



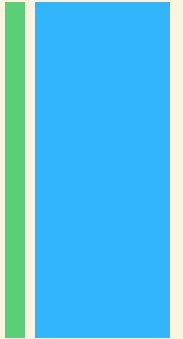
**4.45% of the gap**



**3% of the gap**



# + Potential Policy Priorities & Solutions



## Priority 1: Improve the amount and labor productivity

- **Release women's time** in the household through childcare and improved access to efficient cook stoves and sustainable energy and enhance access to agricultural implements
- **Address prevalent cultural norms** that may prevent women from hiring male labor by sensitizing both men and women

## Priority 2: Enable female farmers to grow high value crops *(Women may not grow higher-value crops due to labor or cash shortages or other priorities)*

- Increase the ability to **get into the market** - strengthening female farmer groups to scale up investments and **access markets** by reducing unit costs
- Better understanding what women want in terms of crop cultivation and learn from women that grow high value crops



# Potential Policy Priorities & Solutions

## Priority 3: Improving access to and use of agricultural implements

- Delivery, timing and **small discounts work better** than large subsidies & smaller packages of fertilizers (certified)
- **Training and communication** modes that takes into account women's differential mobility and time availability

---

*“I see this report as a strong tool to use to inform policy and strategies that can enhance productivity in Malawi. It is also an important tool for us as a ministry to begin to translate the Sustainable Development Goals, and more specifically Goal 1 on eradicating extreme poverty for all people.”*

- Mr Allan Chiyembekeza, the Minister of Agriculture, Irrigation and Water Development

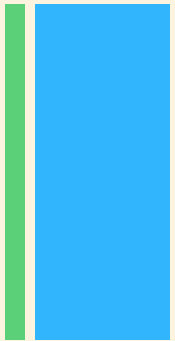


# + Policy impact in Malawi

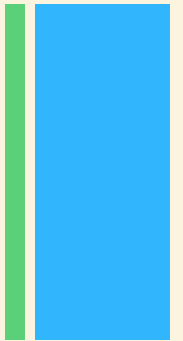
Informed by *The Cost of the Gender Gap*, other integrated evidence and technical inputs from Poverty-Environment Initiative, UN Women and other partners...

**Malawi's new agricultural policy** (September 2016) has a strong focus on:

- **Empowering women, youth and vulnerable.** The policy states that: *'Closing the gender gap and addressing the socio-economic barriers faced by the youth has the potential to boost annual agriculture GDP'* - it identifies concrete actions for implementation
- **Enhancing investments** in climate-smart agriculture and strengthen sustainable land, soil and water management including integrated soil fertility management, irrigation and sustainable use of agrobiodiversity

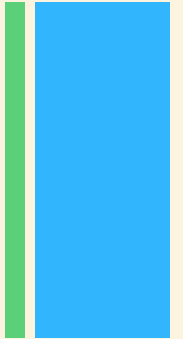


# + Takeaways



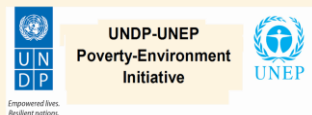
# + Opportunities for collaboration:

## Economics, gender analysis, policy advocacy



**UNDP–UN Environment Poverty-Environment Initiative, UN Women and Country Partners** are furthering this work in 2017 in Malawi, Uganda, Rwanda and Ethiopia

- **Expand the work to more countries**
- Build on the existing evidence through **country field studies** to contextualize the findings & policy analysis
- Further explore the links between environmentally sustainable and **climate smart agriculture** and opportunities for closing the gender gap
- Capacity building and new tools to implement recommendations from the analysis:
  - Enhance **planning and budget tools** for an integrated approach to gender, climate and agriculture
  - **Develop innovative solutions for more gender and climate smart agricultural services**





Empowered lives.  
Resilient nations.

# UNDP-UNEP Poverty-Environment Initiative



European Union



Norwegian Ministry of Foreign Affairs



Spanish Ministry of Foreign Affairs and Cooperation



Swedish International Development Cooperation



UK Department for International Development

THANK  
YOU!