GENDER Impact Platform

CGIAR

WorldFish

Climate-hotspots gender impact assessment in Zambia: Effects of Gender-responsive interventions on gender equality, women's empowerment and Climate Adaptation in Zambia

Authors: Netsayi Mudege[1], Kwaku Arhin-Sam[2], Timothy Manyise[1], Keagan Kakwasha[1] Esther Kihoro[3] , and Els Lecoutere[3]

1. WorldFish
2. FIFE Institute
3. Gender Impact Platform

Presenter: Keagan Kakwasha

11th October 2023

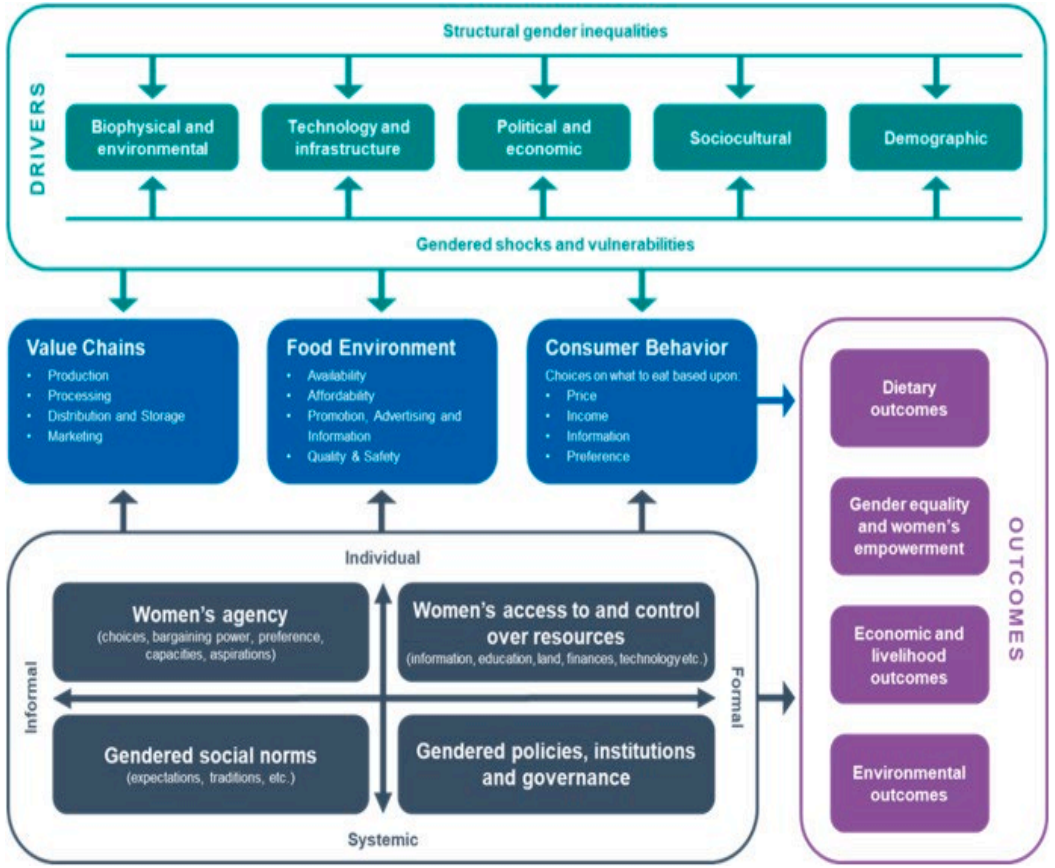
Relevance and Objective

- Aquaculture, like other food systems, is sensitive to the effects of climate change and gender inequities.
- Climate change exacerbates and hampers gender equality efforts by reducing women's resilience, their ability to cope with and adapt to the adverse effects of climate change and impeding their ability to provide food for their families (Tirado et al., 2015).
- The primary objective of this study is to understand how gender-responsive aquaculture interventions enhance women's resilience in the face of climate change and facilitate women's empowerment.
- Do gender-responsive interventions in aquaculture
    1. Effect on women's access to aquaculture resources?
    2. Effect on gender equality of adaptive capacities
    3. Effect on women's agency in aquaculture
    4. Enhance women's empowerment?
    5. Effect on gender equality of AFS outcomes

CGIAR GENDER Impact Platform

Conceptual Framework

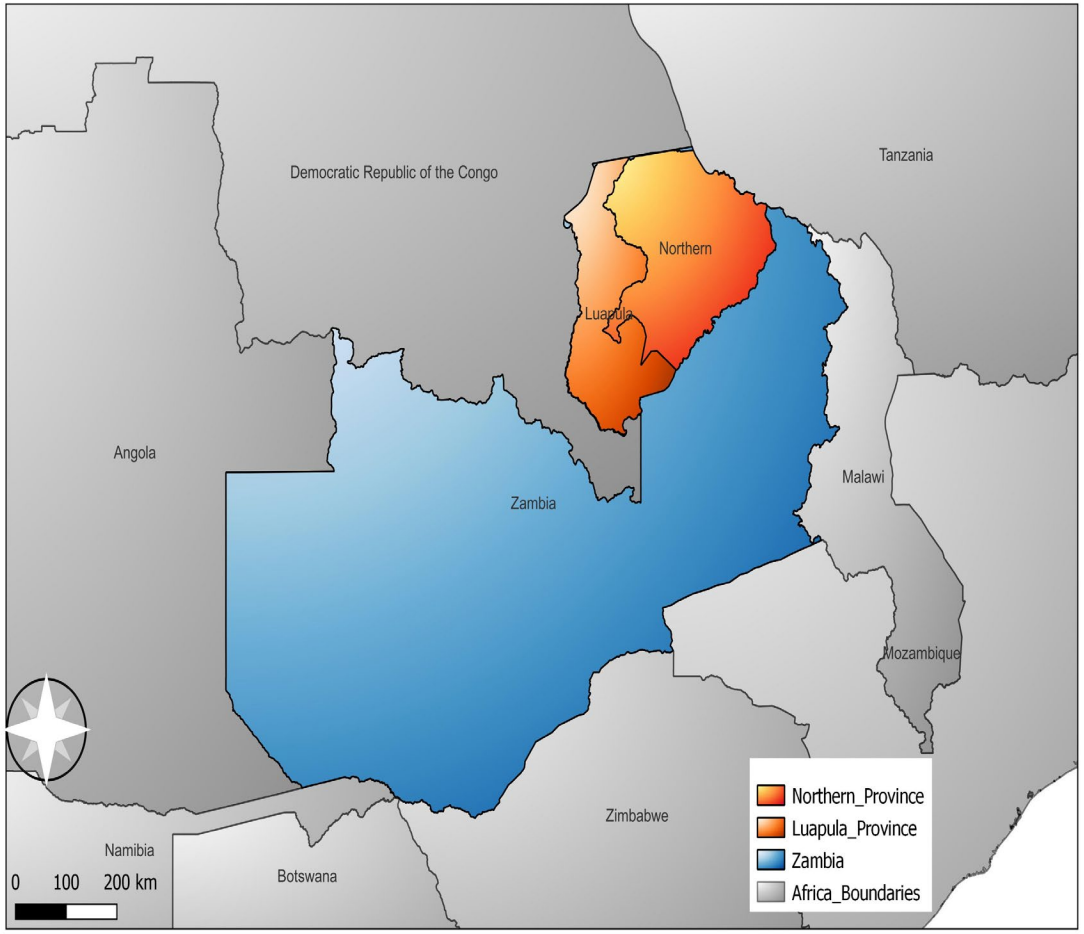
- Based on the gendered food systems framework Njuki et al., 2022.
- The framework is important tool for understanding the complexities of food systems through a gender lens and for designing policies and interventions that promote gender equity, women's empowerment, and sustainable food systems.



CGIAR GENDER Impact Platform

Methodology

- The research employed a mixed-method design, combining quantitative and qualitative data collection methods in a quasi-experimental design
- Data was collected from 322 households (644 respondents) in treatment districts and 178 households (356 respondents) in control districts.
- Data analysis involved descriptive analysis, impact analysis using Average Treatment Effect (Ate) Propensity Score Matching, and Pro-WEAI was used to compute a quantitative measurement of women's empowerment for the two aquaculture interventions.



	Effect of gender responsive aquaculture interventions on:		ATE	AI robust std. err.	P>|z|	N
Effectiveness: Increased women's access to aquaculture resources?	Likelihood that wife is involved in aquaculture (has fishpond of her own or owns it jointly with husband) and is also involved in decision-making	Y1	0.003	0.047	0.946	500
	Likelihood of women's involvement either solely or jointly in control over the productive resources for aquaculture	Y2	-0.054	0.025	0.034	500
	Likelihood of women's involvement either solely or jointly in ownership of land for fish pond construction.	Y3	-0.071	0.056	0.204	500
	Likelihood of women's involvement either solely or jointly in access to information on aquaculture.	Y4	0.381	0.036	0.001	500
Effect on gender equality of adaptive capacities	Intra-household gender difference in awareness of climate-smart practices	Y5	0.028	0.043	0.512	500
	Intra-household gender difference in knowledge of climate-smart practices	Y6	0.185	0.035	0.001	500
	Intra-household gender difference in adoption of climate-smart practices technology climate resilient practices	Y7	0.050	0.042	0.236	500
Effect on women's agency in aquaculture	Likelihood of women's involvement either solely or jointly in aquaculture decision-making	Y8	0.058	0.041	0.153	500
	Likelihood of women controlling income from aquaculture activities	Y9	-0.030	0.041	0.466	500
Effect on women's empowerment	Women empowerment score	Y10	-0.004	0.043	0.930	500
Effect on gender equality of AFS outcomes	Diet diversity IDDS (difference between husband and wife)	Y11	-0.025	0.047	0.586	500
	Food insecurity IFIAS (difference between husband and wife)	Y12	-0.098	0.050	0.053	500

Average treatment effect using propensity score matching using Nearest Neighbourhood Matching 1:1

Descriptive Statistics Pro-WEAI Treatment and Control

Indicator	Treatment		Control	
	Women	Men	Women	Men
Number of observations	322	322	178	178
3DE score	0.87	0.9	0.82	0.82
Empowerment score	0.8	0.82	0.76	0.76
% achieving empowerment	0.65	0.71	0.58	0.56
Mean 3DE score for not yet empowered	0.62	0.64	0.57	0.6
Gender Parity Index (GPI)	0.95		0.93	
Number of dual-adult households	311		169	
% achieving gender parity	0.73		0.72	
Average intra-household inequality score	0.02		0	
Empowerment gap	0.17		0.24	
Pro-WEAI	**0.88**		**0.83**	

CGIAR GENDER Impact Platform

ATE on Subdomains of Pro-WEAI

		AI Robust				
Impact of the Intervention on Input in Livelihood Decisions	ATE	Std. Err.	z	P>z	[95 Conf.	Interval]
(1 vs 0)	**.150079**	.0364465	4.12	0.000	.0786451	.2215129
Impact of the Intervention on Ownership of Land and Other Assets						
(1 vs 0)	.033437	.0216004	1.55	0.122	-.0088989	.0757729
Impact of the Intervention on Control over the Use of Income						
(1 vs 0)	**.1808847**	.0421163	4.29	0.000	.0983383	.2634311

CGIAR GENDER Impact Platform

Conclusion and Recommendations

- The interventions enhanced women's empowerment in some domains including input in livelihood decisions, and control over the use of income

- But there is no evidence that it promoted gender equality in climate-resilient practices, on the contrary, and ownership of land and other assets

- In similar projects in future should strengthen focus on implementing gender intentional empowerment interventions to increase women’s empowerment and gender equality in the agri food systems.

CGIAR GENDER Impact Platform