ADAPTATION FUND

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Adaptation Fund Board

A STUDY ON INTERSECTIONAL APPROACHES TO GENDER MAINSTREAMING IN ADAPTATION-RELEVANT INTERVENTIONS

Background

1. This study was conducted with a view to enhancing understanding on intersectional approaches to gender mainstreaming in adaptation-relevant interventions. It was conducted under the FY 21 Gender work programme[1] approved by the Board[2].

2. The Adaptation Fund's updated Gender Policy and Action Plan[3] (approved in March 2021) acknowledges and integrates the need to apply an intersectional analysis in addressing gender-related differences in vulnerability and ability to decrease vulnerability and adapt to climate change impacts as a lens to understand the complexity and particularity of inequalities in the lives of women and girls, men and boys, including their systemic barriers and root causes. In this regard, this comprehensive study is expected to help the Adaptation Fund and its stakeholders to understand about intersectional approaches to gender mainstreaming, the value addition of using it in adaptation-relevant interventions, as well as emergent practices, limitations and lessons learnt and recommendations for applying it in developing and implementing adaptation-relevant interventions.

[1] Document AFB/EFC.26.a-26.b/2/Rev.1.
[2] Decision B.35.a-35.b/28.
[3] Updated Gender Policy and Gender Action Plan of the Adaptation Fund (approved in March 2021), available at https://www.adaptation-fund.org/wp-content/uploads/2016/04/OPG-Annex-4_GP-and-GAP_approved-March2021pdf-1.pdf

ADAPTATION FUND

Study on intersectional approaches to gender mainstreaming in adaptation-relevant interventions

February 2022

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Cover photo credit: Adaptation Fund in Cook Islands. Mangaian Young Farmers Carrots. Photo by Melina Tuiravakai, 2016.

List of Acronyms

AF Adaptation Fund
CIF Climate Investment Fund
COP Conference of the Parties
CPDAE Community of Practice for Direct Access Entities
CSO Civil Society Organization
DA Designated Authority
DRR Disaster Risk Reduction
DEI Diversity, Equity, and Inclusion
ESP Environmental and Social Policy
FGD Focus Group Discussion
FN Footnote
GEF Global Environment Facility
GEMs Gender Equality, Environments, and Marginalized Voices
GESI Gender Equality and Social Inclusion
GM Gender Mainstreaming
GP Gender Policy
GAP Gender Action Plan
IE Implementing Entities
IPCC Intergovernmental Panel on Climate Change
KII Key Informant Interviews
LDC Least Developed Country
MEA Multilateral Environmental Agreement
MIE Multilateral Implementing Entity
MTS Medium-Term Strategy (of the Adaptation Fund)
NAP National Adaptation Plan
NAPA National Adaptation Program of Action
NDA National Designated Authority
NDC Nationally Determined Contribution
NGO Non-Governmental Organization
NIE National Implementing Entity
RBM Results-Based Management
RIE Regional Implementing Entity
SB Subsidiary Body
SDG Sustainable Development Goal
SF Strategic Focus
UN United Nations
UNFCCC United Nations Framework Convention on Climate Change
WASH Water, Sanitation and Hygiene

Glossary

Adaptation-relevant interventions: refers to interventions that focus on climate adaptation and/or specific relevant sectors (e.g., agriculture, forestry, water/sanitation). Adaptation-relevant interventions are inclusive of investments, projects, programmes, activities, and capacity building.

Climate change adaptation: refers to adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change.[2]

Gender: refers to the roles, behaviors, activities, rights, and attributes that a given society at a given time considers appropriate for women and girls and men and boys. In addition to the social attributes and opportunities associated with being male and female and the relationships between women and girls and men and boys, gender also refers to the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/time-specific and changeable. Gender determines what is expected, allowed, and valued in a woman or a man in a given context. In most societies there are differences and inequalities between women and girls and men and boys in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Gender is part of the broader socio-cultural context and intersects with other important criteria for socio-cultural analysis including class, race, poverty level, ethnic group, and age.[3]

***Gender analysis*:** refers to systematic analytical process for organising, collecting, analysing, and interpreting qualitative and quantitative information that examines gender relations in a particular context, ranging from households to communities to nations. The key elements of gender analysis are understanding cultures (their underlying roles, values, norms, and beliefs), power and relationships (access, control, and decision-making over time, assets, and resources; workloads; needs; empowerment; vulnerability), which are manifest at different or multiple scales and can be expressed in the construction of gender identities and inequalities.[4]

Gender-based analysis plus (GBA+): refers to an analytical process used to assess how diverse groups of women, men, and non-binary people may experience policies, programmes, and initiatives. The

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[2] UNFCCC. What do adaptation to climate change and climate resilience mean?; https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean

[3] UN Women Training Centre Gender Equality Glossary; https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey&sortorder=asc&fullsearch=0&page=0 , cited in AF Gender Policy (2021) https://www.adaptation-fund.org/document/opg-annex4-gender-policy/

[4] Mehar M and McDougall C. (2017). Methods and tools for gender analysis in FISH: A preliminary consolidation and reference guide. Penang, Malaysia: CGIAR Research Program on Fish Agri-Food Systems. Internal document. https://www.researchgate.net/publication/342599754_Methods_and_tools_for_gender_analysis_in_FISH_A_preliminary_consolidation_and_reference_guide

"plus" in GBA+ acknowledges that GBA+ goes beyond biological (sex) and sociocultural (gender) differences to consider other identity factors, such as race, ethnicity, religion, and age.[5]

Gender equality: refers to the equal rights, responsibilities and opportunities and access of women and men, boys and girls and the equal consideration of their respective interests, needs and priorities. As gender equality concerns and benefits men and women, boys and girls, not only women and girls but also men and boys are required to fully engage in promoting gender equality and in changing gender roles. Equality between women and men is a human rights issue as well as a precondition for, and indicator of, sustainable, people-centred development.[6]

Gender equity: refers to the process of being fair to women and men, girls and boys. It recognizes the need for potential differential treatment that is fair and positively addresses a bias or historical or social disadvantage or power imbalance that is due to gender roles or norms or differences between the sexes. It is about fair and just treatment that takes into account the different needs of women and girls, men and boys, cultural barriers and (past) discriminations of the specific group.[7]

Gender mainstreaming: refers to a globally supported strategy for promoting gender equality. Mainstreaming involves the process of assessing the implications for women and girls, men and boys of any planned action, including legislation, policies or programmes, in any area and at all levels, thereby increasing the effectiveness of interventions. It is a strategy for making the experiences and concerns of all people regardless of gender an integral part of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that different gender groups benefit equally, and inequality is not perpetuated. The ultimate goal of mainstreaming is to achieve gender equality.[8]

Gender norms: refers to the gender dimensions of social norms, or the societal expectations of how men and women ought to behave in their everyday affairs. Social norms also "structure social interactions in ways that allow social actors to gain the benefits of joint activity and they determine in significant ways the distribution of the benefits of social life."[9]

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[5] Hankivsky, O., and Mussell, L. (2018). Gender-Based Analysis Plus in Canada: Problems and Possibilities of Integrating Intersectionality. *Canadian Public Policy / Analyse De Politiques*, 44(4), 303-316. https://doi.org/10.3138/cpp.2017-058

[6] UN Women Training Centre Gender Equality Glossary; https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey&sortorder=asc&fullsearch=0&page=0, cited in AF Gender Policy (2021) https://www.adaptation-fund.org/document/opg-annex4-gender-policy/

[7] ecbi (2018), p.64

[8] ecbi (2018), pp.64-65, cited in AF Gender Policy (2021) https://www.adaptation-fund.org/document/opg-annex4-gender-policy/

[9] Petesch, P., Badstue, L. B., and Prain, G. (2018). Gender norms, agency, and innovation in agriculture and natural resource management: The GENNOVATE methodology, p.6. https://gender.cgiar.org/wp-content/uploads/2018/02/GENNOVATE-Methodology_Feb2018_FINAL.pdf

Gender responsive: refers to the consideration of gender norms, roles and relations and to addressing inequality generated by unequal norms, roles and relations through changes within a given social setting through remedial action.[10]

Gender transformative: refers to approaches actively striving to examine, question, and change rigid social and gender norms, cultural values and to address power inequalities between persons of different genders and the root causes of gender inequality and discrimination as well as seeking to redefine systems and institutions that create and perpetuate inequities. The goal of this approach is to transform adverse gender norms and power dynamics into positive ones, thus accelerating achievement of gender equality.[11]

***Intersectionality [general definition]*:** refers to how gender overlaps with other sociocultural factors, such as race, ethnicity, migratory status, religion or belief, health, status, age, class, caste, sexual orientation, gender identity, and inclusion and exclusion. Looking through the lens of intersectionality is critical for understanding the complexity and particularly of inequalities in the lives of women and girls, men and boys.[12]

***Intersectionality [as applied analytic concept]*:** refers to how different axes of experience and identity interact to produce different effects that cannot be explained by analysing single categories.[13] Intersectional approaches can be applied using anti-categorical, inter-categorical, or intra-categorical lenses.[14] Beyond the analysis of individual-level and intrahousehold relationships, intersectionality can be used to analyse structures of power at multiple scales (global, national, and local) and institutions (communities, markets, and management regimes).[15]

Multidimensional vulnerability: refers to an individual's relative vulnerability and position of privilege or marginalisation within society as driven by intersecting dimensions of inequality and socioeconomic development pathways.[16] Multidimensional vulnerability considers identity markers (e.g., gender, age, and ethnicity) and dimensions of inequality as interlocked, generating intersectional dimensions

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[10] Updated Gender Policy and Gender Action Plan (2021). https://www.adaptation-fund.org/document/proposal-for-the-updated-gender-policy-and-gender-action-plan-of-the-adaptation-fund/

[11] Ibid., p.7.

[12] UNICEF (2017). Gender Equality. Glossary of Terms and Concepts, p.6; available at: https://www.unicef.org/rosa/media/1761/file/Gender%20glossary%20of%20terms%20and%20concepts%20.pdf.
UN Women (2018). Turning Promises into Action. Gender Equality in the 2030 Agenda for Sustainable Development, Box 1.2, p.31; available at: https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2018/sdg-report-gender-equality-in-the-2030-agenda-for-sustainable-development-2018-en.pdf?la=en&vs=4332.

[13] Clement et al. (2019). From women's empowerment to food security: Revisiting global discourses through a cross-country analysis, *Global Food Security*, vol. 23, pp.160-172. https://doi.org/10.1016/j.gfs.2019.05.003

[14] McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of women in culture and society*, *30*(3), 1771-1800. https://doi.org/10.1086/426800

[15] Mohanty, C. T. (2003). Feminism without borders. Duke University Press. https://www.dukeupress.edu/feminism-without-borders

[16] Olsson, L., et al. (2014). Livelihoods and poverty. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 793-832. https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap13_FINAL.pdf

of inequality that produce both privileged (low-risk) and marginalised (high-risk) populations. Low-risk populations have little to no multidimensional vulnerability and the highest capacities and opportunities within society, while the most marginalised, high-risk people have the fewest capacities and opportunities with the most intersecting dimensions of inequality.

Resilience: In the context of climate change, refers to the ability of people and communities to cope with and recover from climate change impacts. The physical, economic, socio-political, and cultural conditions of a person or community often intersect to define that person or community's resilience in the face of climate change. However, resilience is not static and can be strengthened or weakened as physical, economic, socio-political, and cultural changes unfold. Some characteristics may be a source of both vulnerability (see *Vulnerability*) and resilience.[17]

Social inclusion: refers to the consideration of different needs and abilities due to other social factors such as ethnicity and caste, socioeconomic status, or disability status.[18]

Vulnerability: In the context of climate change, refers to a person or community's likelihood of exposure, as well as sensitivity to climate change impacts. A person or community's vulnerability to climate change impacts depends on a number of factors including that person or community's physical, socio-political, and cultural resilience (see *resilience*). While, in a given location, a number of people may be exposed to the same climatic changes, physical, socio-political, and cultural conditions such as poverty, intersectional oppression, health limitations, lack of decision-making power, etc., may make some people more vulnerable to these changes and their associated impacts.[19]

Women's empowerment: refers to the process by which women gain power and control over their own lives and acquire the ability to make strategic choices through an expansion of agency throughout women's lives, especially via participation and decision-making. It generally refers to differential or pro-active support to increase: (i) women's awareness and sense of self-worth and rights; (ii) women's right to have and determine choices; (iii) women's right to have access to opportunities and resources; (iv) women's right to have power to control their own lives both within and outside the home; and (v) women's ability to influence the direction of social, political and economic change to create a more just social, political and economic order, nationally and internationally.[20]

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[17] Vinyeta, Kirsten, Powys Whyte, Kyle, and Lynn, Kathy. (2015). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States. Gen. Tech. Rep. PNW-GTR-923. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 72 p. https://www.fs.fed.us/pnw/pubs/pnw_gtr923.pdf

[18] Anderson, A. (2018). Resilience in Action: Gender Equity and Social Inclusion. Produced by Mercy Corps as part of the Resilience Evaluation, Analysis and Learning (REAL) Associate Award, p.2. https://www.mercycorps.org/sites/default/files/2019-12/REAL_Resilience_in_Action.pdf

[19] Vinyeta, Kirsten, Powys Whyte, Kyle, and Lynn, Kathy. (2015). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States. Gen. Tech. Rep. PNW-GTR-923. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 72 p. https://www.fs.fed.us/pnw/pubs/pnw_gtr923.pdf

[20] European Institute of Gender Equality (EIGE), https://eige.europa.eu/thesaurus/terms/1102, cited in AF Gender Policy (2021) https://www.adaptation-fund.org/document/opg-annex4-gender-policy/

Executive Summary

Highlights

- Understandings of the complexity of gender norms and gendered approaches have evolved since gender mainstreaming was first time formally featured in 1995 at the Fourth World Conference on Women in Beijing. In recent years, there has been a shift within gender mainstreaming to better elaborate and recognize that gender interacts with other forms of inequality. There is thus growing attention to intersectional approaches, and how they can complement or strengthen the implementation of gender mainstreaming strategies.

- In the context of climate change adaptation, development organizations and institutions have identified the need to apply and integrate an intersectional approach to gender mainstreaming to better understand and address gender-related differences in vulnerability, resilience, and climate change impacts. To this end, intersectionality is an analytic lens to understand the complexity and particularity of inequalities in the lives of women and girls, men and boys, and non-binary people including their systemic barriers and root causes.

- This report uses a desk review to evaluate the current state of intersectional approaches to gender mainstreaming in adaptation-relevant interventions. It canvasses the existing academic and gray literature to examine how the concept of intersectionality and various intersectional analytic approaches have been applied to adaptation-relevant sectors, and what using such a lens has revealed. Several case study examples from development and humanitarian organizations are used to illustrate the different intersectional approaches to gender mainstreaming that have been introduced, are currently being used, or could be applied in adaptation-relevant interventions.

- The findings from the review highlight that while there is no single approach to integrating intersectionality in gender mainstreaming in adaptation-relevant interventions, the concept of intersectionality has been used effectively in various interventions to unpack the nuances of inequalities that intersect with gender at multiple scales. For example, intersectional analysis has been used to examine how gender and positioning *within the household* (e.g., mothers-in-law v. daughters in law) influence older and younger women's participation in adaptation-relevant interventions in the water management sector, how gender and positioning *within the community* based on related socio-cultural factors (e.g., wealth, caste) influence access to and control over natural resources in different adaptation-relevant sectors, and how broader structural forces of discrimination and exclusion (e.g., racism, homophobia, ageism) interact with gender norms in society that influence individual-level outcomes related to health, food security, and disaster-risk. By generating evidence about these differences using intersectional analyses, policymakers and practitioners are able to create more inclusive and equitable policies, services, and programmes to address these differences. Thus, an intersectional approach should be viewed as an invaluable analytic lens and powerful tool towards gender-transformative change for gender mainstreaming

practitioners to illuminate the multi-dimensional lived realities of women, men, and non-binary people of all ages and across different intersecting social identities and drivers of inequality.

- The adaptation-relevant sectors canvassed – such as agriculture and food security, water management, health, forests and forest management, and disaster risk reduction – are highly interconnected, with changes in one sector having rippling effects into other sectors (e.g., lack of rainfall and water scarcity coupled with lack of inclusive water management and climate-information services will affect forest and natural resource management, which impacts agricultural productivity, household food security and related health-outcomes). In light of these overlaps, holistic approaches to incorporating intersectionality across the project/programme cycle are recommended to engage in multi-pronged, cross-sectoral efforts to ensure there are no missed opportunities for enhancing gender equality in climate adaptation and resilience strategies. Given the fluid and evolving ways in which gender intersects with other social categories and broader structural drivers of change, intersectional approaches in adaptation-sectors should be iterative and include participatory forms of data collection, monitoring, and evaluation.

- Whether gender is stipulated 'a priori' in intersectional approaches is an ongoing discussion in the academic literature, but thus far, the report found gender to be a useful entryway into and a core lens for applying intersectionality in their policies and strategies. However, as some organizations indicated, there exist several practical and conceptual challenges with working on gender and intersectionality. These included: the complexity of analyzing gender and other characteristics of difference, limited knowledge of how to design gender-transformative research; and long-term engagement with local partners essential for tackling intersecting inequalities. Underpinning these challenges is the fact that data disaggregated by sex, age, ethnicity, and other socio-economic factors are rarely collected systematically in practice, leading to a gap in monitoring and evaluation processes and policy formulation that would otherwise be informed by this data.

- Future directions on intersectional approaches to gender mainstreaming in adaptation-relevant interventions should address both the methodological and practice-side gaps that currently exist. Integral to this agenda will be the documentation of lessons learned and best practices on how to apply intersectional approaches throughout the project/program cycle. Project/programme documentation of these 'learning by doing' strategies will help generate valuable knowledge and experience that can be taken forward into future interventions.

- Because of the multiple and complex layers of exclusion and marginalization within societies, even if not all characteristics of intersectional difference are comprehensively acknowledged in an intervention, the incorporation of any additional intersectional lenses would advance understandings of gendered vulnerability and resilience beyond a static perception of men and women as binary, homogenous groups. The study's overarching recommendation is that the application and advancement of intersectional approaches to adaptation-relevant interventions should be viewed as a process/pathway towards greater understandings and inclusion, as

opposed to an “end-product” or “all-or-nothing” proposition. The comprehensiveness of applications of intersectionality will depend on local contexts, including potential cultural, legal, or political restriction or opposition to some or all aspects, but these should not be used as an excuse to not pursue intersectional approaches at all. Indeed, as the case study examples illustrate, any type of incremental improvement towards intersectional understandings of gender would facilitate more-informed interventions based on a more nuanced approach compared to conventional binary gender analyses.

Context

In recent years, gender mainstreaming has become an integral part of adaption-relevant interventions. Gender mainstreaming seeks to address the issues and needs of all genders, both at the organizational level and programming level, and uncovers how policies, practices, and interventions will impact people differently, with the goal of addressing social and cultural norms that prevent people from accessing and benefitting from opportunities equally.[21] The necessity of gender mainstreaming in adaptation-relevant interventions stems from the global gender gap in vulnerabilities and access to resources, which leads to gender differentiated climate adaptive capacity that disadvantages women and girls.[22] Amidst the successes of gender mainstreaming is a rise in interest in integrating an approach that accounts for the ways gender interacts with other inequalities – referred to herein as an "intersectional approach."

The concept of intersectionality originates in black feminist thought and was first defined as, *"the interaction between gender, race, and other categories of difference in individual lives, social practices, institutional arrangements, and cultural ideologies and the outcomes of these interactions in terms of power."*[23] In essence, an intersectional approach holds that social power relations (such as gender, ethnicity, and class), influence and co-construct each other, shaping the experiences of different people living at these intersections of identity and relative levels of power within society.[24] Thus, to really understand gender, the concept of intersectionality implies that we also need to understand the ways in which other social power relations work and interact with it.[25]

Given that a comprehensive understanding of gender is central to determining what shapes individual and group vulnerabilities and capacities to respond to climate change[26], there is a need to better understand what intersectional approaches could bring to the field of adaptation. Thus, this scoping paper explores what intersectionality means and why it matters in the context of gender mainstreaming in adaptation-relevant interventions.

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[21] The Gender Practitioners Collaborative. (2017). Minimum Standards for Mainstreaming Gender Equality. 24pp. (p.2) https://www.fhi360.org/sites/default/files/media/documents/minimum-standards-mainstreaming-gender-equality.pdf

[22] Huyer, S. (2016). Closing the gender gap in agriculture. *Gender, Technology and Development*, 20, 106-116. https://journals.sagepub.com/doi/pdf/10.1177/0971852416643872

[23] Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum* 140: 139–167. https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf

[24] Nightingale, A. J. (2011). Bounding difference: Intersectionality and the material production of gender, caste, class and environment in Nepal. *Geoforum*, 42(2), 153–162. https://doi.org/10.1016/j.geoforum.2010.03.004

[25] Center for International Forestry Research (CIFOR). (2018). Intersectionality: What does it mean and how can we better engage with it? PowerPoint presentation, CIFOR Knowledge repository. https://www.cifor.org/knowledge/slide/10123/

[26] Djoudi, H. (2015). At the intersection of inequities: lessons learned from CIFOR's work on gender and climate change adaptation in West Africa. *Gender Climate Brief*, No. 4, 4pp. https://www.cabdirect.org/cabdirect/abstract/20183057156

About this report

This report provides an overview of intersectionality in the context of gender mainstreaming in adaptation-relevant interventions. The study would help the Adaptation Fund and its stakeholders to understand about intersectional approaches, the value addition of using an intersectional approach to gender mainstreaming in adaptation-relevant interventions, as well as emergent best practices, lessons learnt and recommendations for applying an intersectional approach in developing and implementing adaptation-relevant interventions.

The intended audience for the study is the Adaptation Fund and its stakeholders including implementing entities, the Adaptation Fund Board and its secretariat, governmental officials, civil society groups, and other stakeholders and the public who are interested in learning more on intersectional approaches to gender mainstreaming in adaptation-relevant interventions.

Main findings

The report finds that intersectionality in the context of gender mainstreaming in adaptation-relevant interventions is a relatively novel concept. However, there are several lessons and recommendations that can be gleaned from recent case studies in various adaptation-relevant sectors. The main findings of the report include:

- **Among international organizations and institutions, there has been a recent shift towards strategies for bringing intersectional approaches to gender mainstreaming in adaptation-relevant interventions and sectors.** While often termed as 'GESI' (Gender and Social Inclusion) or 'intersectional gender analyses', most frequently intersectionality is a concept embedded in organizational and project strategy that views gender as an intersecting component of other identity categories and wider structural inequalities. While the logic for using an intersectional approach overlaps with existing tools such as social inclusion policies and analyses, participatory vulnerability and capacity analyses (PVCA), risk management assessments, and socioeconomic analyses, it differs by explicitly placing gender at the center of analysis.

- **Applied to adaptation-relevant interventions, intersectional approaches explore gender's interactions with other axes of social differentiation (e.g., age, race/ethnic community, caste/class) and how these influence adaptation-relevant practices.** Although intersectional approaches have the potential to examine the broader social, cultural, and political environments that determine intersectional inclusions and exclusions in interventions, these types of holistic assessments are rare, and commonly 'snippet' approaches that look at single intersections are used in practice - the most common being the intersection of gender and age.

- **Intersectional approaches have illuminated the double vulnerabilities at intersections of multiple social exclusions (e.g., 'double discriminations' for women form marginalized ethnic communities who embody the double marginalization of being a woman and being from a marginalized ethnic community) that would otherwise not be visible through a binary gender mainstreaming lens.** Several case studies point to how intersectionality has been integrated into gender mainstreaming processes at different stages within adaptation-relevant interventions (especially related to intersectional gender analyses). These applications indicate that approaching vulnerability to climate change through intersectional understandings of identity can help better tailor adaptation programming, project design and implementation, and lead to better outcomes.[27]

- **Engaging in analyses of multi-dimensional and intersecting gendered vulnerabilities to climate change is essential in risk management for marginalized and vulnerable groups** (such as children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people

[27] Thompson-Hall, M., Carr, E. R. and Pascual, U. (2016). Enhancing and expanding intersectional research for climate change adaptation in agrarian settings. *Ambio*, 45(Suppl 3): 373–382. 10.1007/s13280-016-0827-0

living with disabilities, and people living with HIV/AIDS). At the same time, intersectional approaches help in moving from a singular focus on risk management towards more gender-responsive, and even gender-transformative approaches.

- **In recognizing, addressing, and supporting people's differentiated agency and resilience (needs), intersectional approaches have the potential to facilitate moving beyond a narrow focus on gender safeguards and prevention of gendered harm to pro-actively addressing and taking action on how adaptation measures can promote gender equality and the empowerment and agency of women and girls.** Strategies that link intersectionality with human rights frameworks will help accelerate the identification of privilege, confront power inequalities and work towards securing gender justice.

- **As the study's substantive findings indicate, there are clear case study examples that highlight the applicability and feasibility of intersectional approaches in adaptation-relevant interventions.** Thus, while detailed frameworks and standardized methodological guidance are currently lacking, this should not be an excuse for projects/programmes to not start action towards intersectional approaches to gender mainstreaming. Acknowledging that engaging with intersectionality is a process rather than an endpoint, even incremental steps towards incorporating intersectionality that go beyond static, homogenous/binary conceptions of gender will lead to more inclusive and equitable interventions.

- **To inform future directions on intersectional approaches to gender mainstreaming in adaptation-relevant interventions, projects/programmes are encouraged to document their lessons learned and best practices on how to apply intersectional approaches throughout the project/programme cycle.** Documentation of these 'learning by doing' strategies will help generate valuable knowledge and experience that can inform methodological innovations and practical implementation/application best practices that can be taken forward into future interventions.

1. Introduction

Study background and rationale

The Adaptation Fund (the Fund) finances projects and programmes that help vulnerable communities in developing countries build resilience and adapt to climate change. The Fund is a financing mechanism with innovative features set up by the Conference of Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC). Since 1 January 2019, the Fund started serving the Paris Agreement. One of the innovative features of the Fund is that countries can have direct access to the funds through an accredited National Implementing Entity (NIE), without necessarily going through multilateral agencies such as development banks or UN agencies. Alternatively, the countries can use the conventional path of accessing funding through accredited Multilateral Implementing Entities (MIEs) or through Regional Implementing Entities (RIEs).

The Fund adopted its Gender Policy and Action Plan (GP and GAP) in March 2016, which built on the existing gender policies and gender action plans of other climate funds and systematically integrated key principles elaborated in the Fund's own Environmental and Social Policy (ESP), especially the principles of access and equity, on consideration of marginalized and vulnerable groups and of human rights. The Fund also adopted its Medium-Term Strategy 2018-2022 (MTS) in 2018 based on three pillars of Action, Innovation and Knowledge and Sharing. 'Gender equality and the empowerment of women and girls' is one of the four cross-cutting themes of the MTS.

The Fund's GP and GAP had been updated through a multi-step and participatory approach with an independent review and assessment of the implementation of the original Gender Policy and Action Plan followed by the two rounds of public call for comments. The updated Gender Policy and Action Plan, approved in March 2021, acknowledges and integrates the need to apply an intersectional analysis in addressing gender-related differences in vulnerability and ability to decrease vulnerability and adapt to climate change impacts as a lens to understand the complexity and particularity of inequalities in the lives of women and girls, men, and boys, and non-binary people, including their systemic barriers and root causes.

In line with these updates, the Fund commissioned the present report to help the Adaptation Fund and its stakeholders, including the implementing entities, to better understand what intersectional approaches are, the importance of using an intersectional approach to gender mainstreaming in adaptation-relevant interventions, as well as how to apply an intersectional approach in developing and implementing adaptation-relevant interventions.

2. Methodology

The methodology for the study consisted of a desk review, which canvassed materials from the following sources:

1. Desktop literature review and synthesis of Adaption Fund policies and guidelines to guide in the development of the study outline (guidance document for implementing entities on compliance with the AF Gender Policy; updated gender policy and gender action plan; assessment report on progress of implementation of GP and GAP).
2. Desktop literature review and synthesis of published material (academic and gray literature) on intersectional approaches in the context of gender mainstreaming in adaptation-relevant interventions.
3. Review and synthesis of documents and information related to existing practical examples (case studies) where the intersectional approach has been applied in addressing gender in adaptation-relevant interventions.

The review used three guiding questions to limit the scoping of relevant literature to the specific aims of the study. These are listed in Table 1.

Table 1: Study's Guiding Questions

Study's Guiding Questions
1 What is an 'intersectional approach' in the context of gender mainstreaming in adaptation-relevant interventions?
2. What is the value addition of intersectional approaches in adaptation-relevant interventions?
3. What are the emergent best practices, lessons learnt and recommendations for applying intersectionality in gender mainstreaming in adaptation-relevant interventions?

The academic databases Google Scholar, Wiley Online Library, ProQuest, JSTOR, SAGE, Taylor & Francis and the CGIAR Gender Research Database were chosen to scope relevant academic literature. All seven are large databases of peer-reviewed scientific literature and cover a wide range of research fields. Gray literature was sourced from the websites of development and non-governmental organizations. Requests were also sent through the research team's network of contacts working in the field of gender and evaluation in international development for any additional relevant materials.

The key selection and exclusion criteria for the desk review are presented in Table 2.

Table 2: Selection and Exclusion Criteria for Desk Review

Source	Selection criteria	Exclusion criteria	Selection 'wild cards'
AF policies and guidelines	AF policies and guidelines that specifically mention goals/initiatives related to 'gender'	Policies and guidelines not generated by AF	Specific resources shared by AF/relevant stakeholders
Peer-reviewed and gray literature	Search terms: "intersectionality" + "gender mainstreaming" + "climate change adaptation" + "development"	Literature outside of climate change and/or development foci	Specific resources shared by AF/relevant stakeholders
Documents and information related to adaptation-relevant case studies	Case studies/examples where intersectional approaches have been applied to addressing gender in adaptation-relevant interventions	Literature outside of climate change adaptation and/or development foci	Specific resources shared by AF/relevant stakeholders

In addition to the selection and exclusion criteria depicted in Table 2, search terms that were used in combination with these criteria were: adaptive capacity, agency, agriculture, agri-business, capacity, class, coastal zone management, culture, decision-making, development, development interventions, disaster risk reduction, diversity, division of labor, domestic sphere, empowerment, entrepreneurs, equality, equity, ethnicity, gender assessment, gender-responsive, gender-transformative, feminism, feminist, food security, forests/forestry, inclusion, identity, indigenous people, indigenous women, indigenous knowledge, inequality, international development, livelihood, lived experience, local ecology, local knowledge, marginalization, markets, market systems, masculinity, masculinities, mobility, natural resources, norms, nutrition, participation, patriarchy, political ecology, postcolonialism, poverty, race, resistance, resilience, rights, rural development, rural women, sex, social differentiation, social inclusion, urban development, vulnerability, and water, water management, WATSAN, women's empowerment.

3. State of intersectional approaches to gender mainstreaming in adaptation-relevant interventions

This desk review aims to identify what constitutes intersectional approaches to gender mainstreaming in the context of adaptation-relevant interventions. This includes what intersectional analysis and intersectionality as a concept of gender equality have looked like at both the policy 'framing' level and in practice. The review further details how the concept of "intersectionality" has been applied in different sectors in adaptation-relevant interventions and what it has revealed. Embedded in this section are several case studies from development and humanitarian organizations chosen to illustrate the different intersectional approaches to gender mainstreaming that have been, or are currently, being used in adaptation-relevant interventions. Sector-specific perspectives and relevant case study examples are discussed in the context of current trends in gender mainstreaming in the fields of agriculture and food security, forests and forest management, disaster risk reduction, water management, and health.

3.1. Framing intersectionality in gender mainstreaming in adaptation-relevant interventions

Intersectionality is being increasingly positioned as complementary and necessary to advancing gender equality.[28] As such, there is growing support to integrate intersectionality in gender mainstreaming efforts in ways that would enable effective strategies to address gender as the core component of multiple intersecting wider structural inequalities.[29] A recent discussion piece in the *Journal of International Development* aimed to tease out the different naming strategies that are currently being used to bring the concept of intersectionality to bear on gender mainstreaming. These examples included:[30]

- 'Intersectional gender mainstreaming' (Women's Legal Education & Action Fund Inc., 2016)[31]
- 'Intersectional gender lens' (Re: Gender, 2016)[32]
- 'Intersectional gender analysis' (Center for International Forestry Research, 2015)[33]
- 'Gender + perspective' (EES and RELAC, 2015)[34]

[28] Hunting, G., and Hankivsky, O. (2020). Cautioning Against the Co-Optation of Intersectionality in Gender Mainstreaming. *Journal of International Development*, *32*(3), 430-436. https://doi.org/10.1002/jid.3462

[29] Tolhurst, R., Leach, B., Price, J., Robinson, J., Ettore, E., Scott-Samuel, A., Kilonzo, N., Sabuni, L.P., Robertson, S., Kapilashrami, A. and Bristow, K., (2012). Intersectionality and gender mainstreaming in international health: Using a feminist participatory action research process to analyse voices and debates from the global south and north. *Social Science & Medicine*, *74*(11), pp.1825-1832. https://doi.org/10.1016/j.socscimed.2011.08.025

[30] These examples and UN examples on the following page are originally cited in Hunting and Hankivsky (2020), p.2

[31] LEAF (Women's Legal Education and Action Fund Inc.). (2016). Re: closing the gender wage gap. Letter to the Gender Wage Gap Strategy Steering Committee. January 22, 2016. Available at: http://www.leaf.ca/wp-content/uploads/2016/02/2016-01-22-LEAF-Submission-Gender-Wage-Gap-Consultation.pdf

[32] CIGR [Clayman Institute for Gender Research]. (2017). Why gender research matters now more than ever. January 30, 2017. Available at: http://gender.stanford.edu/news/2017/why-gender-researchmatters-now-more-ever

[33] CIFOR [Center for International Forestry Research]. (2015). At the intersection of inequities – lessons learned from CIFOR's work on gender and climate change adaptation in West Africa. Gender climate brief no. 4. Center for International Forestry Research (CIFOR), Bogor, Indonesia.

[34] EES, ReLAC. (2015). Guide to including a gender + perspective in VOPEs: innovating to improve institutional capacities. https://evalpartners.org/sites/default/files/documents/evalgender/Gender_Guide_def_en.pdf

- 'Gender mainstreaming with an intersectional perspective' (Swedish Secretariat for Gender Research, 2015)[35]

A notable addition to this list would be the GBA+ (Gender Based Analysis Plus) strategy of the Government of Canada, which is framed as an analytical process used to assess how different women, men and gender diverse people may experience policies, programmes and initiatives.[36] At the UN (United Nations), intersectional approaches have been emphasized in respect to the sustainable development goals (SDGs) commitment to 'leave no one behind' in the pursuit and measurement of social and economic progress.[37] Several UN organizations, including UN Women[38], UN Children's Fund[39], UN Development Programme[40], and the UN High Commissioner for Refugees (UNHCR) [41] have acknowledged the improved outcomes due to applying intersectionality in gender mainstreaming efforts.

In assessing current trends amongst international organizations in gender mainstreaming that attempt to bring an intersectional lens to bear on adaptation-relevant interventions, it is important to note that while the inclusion of an intersectional lens to gender mainstreaming is happening, thus far it has been unevenly applied (i.e., the depth to which organizations have engaged with the concept have varied).[42] When the elements of the concept have been applied, it is generally under a different broadened approach, most notably as a "Gender Equality and Social Inclusion (GESI)" approach. When aligned with an intersectional understanding of gender, GESI approaches examine gender equality and *related* social inclusion issues – that is, gender equality is viewed as the primary prism of analysis and other dimensions of social exclusion are examined in relation to gender, not instead of gender. A critique of the application of GESI is that, while some GESI approaches have applied comprehensive understandings of the intersectional complexities of gender (e.g., how gender norms are mediated by other areas of social differentiation like caste, ethnicity, and age) in applied development contexts, many continue to refer to/use homogenous "excluded/marginalized groups" rather than acknowledging there is intersectional differentiation even within excluded/marginalized groups (see Case Study 2). Although GESI and comprehensive intersectional

[35] SSGR [Swedish Secretariat for Gender Research]. (2015). Gender mainstreaming with an intersectional perspective. Available at: http://www.includegender.org/wp-content/uploads/2015/06/Gender-Mainstreaming-with-an-Intersectional-Perspective-pdf

[36] https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html

[37] UN [United Nations]. (2016). The sustainable development goals report 2016. Available at: https://unstats.un.org/sdgs/report/2016/The%20Sustainable%20Development%20Goals%20Report%202016.pdf

[38] UN Women. (2017). Virtual dialogue on addressing intersectionality in training for gender equality: a conversation for gender trainers. Final Report. UN Women Training Centre, NY.

[39] UNICEF. (2017). Terms of reference. GenderPro: credentialing & capacity building program. Available at: https://www.ungm.org/Public/Notice/63446

[40] UNDP [United Nations Development Programme]. (2014). Fast-forwarding gender equality and women's empowerment? Reflections on Measuring Change for UNDP's Thematic Evaluation on Gender Mainstreaming and Gender Equality 2008–2013. Available at: http://web.undp.org/evaluation/documents/articles-papers/occasional_papers/Occasional%20Paper_Gender_Pittman%20.pdf

[41] UNHCR. (2018). Achieving gender equality and addressing sexual and gender-based violence in the global compact on refugees. Available at: http://www.unhcr.org/5a72f2eb7

[42] Chaplin, D., Twigg, J., and Lovell, E. (2019). 'Intersectional approaches to vulnerability reduction and resilience building: a scoping study'. *Resilience Intel*. London: BRACED and OD. https://odi.org/en/publications/intersectional-approaches-to-vulnerability-reduction-and-resilience-building/

approaches should not be considered equivalent, GESI does have the potential to move towards more fully intersectional approaches.

This has been the approach taken by the International Institute for Environment and Development (IIED) and U.S. Agency for International Development (USAID), among others. Other organizations, such as the Global Environment Facility (GEF) have incorporated elements of the concept of intersectionality into their gender mainstreaming plans in a less-systemic way, for example, by referring to the need to collect data from "sub-groups" of women and men in their gender-responsive results framework. Similarly, the Adaptation Fund has implicitly incorporated elements of the concept of intersectionality in several key planning and guidance documents, including the AF Guidance Document for Implementing Entities for Compliance with Fund's Gender Policy (Gender Guidance Document) which provides guidance on gender-responsive results framework, data collection, and implementation and the AF Environmental and Social Policy (ESP).

Each of these organizations' relevant policies/plans are described in greater detail below.

An example for an organization integrating intersectionality using a GESI perspective is the International Institute for Environment and Development (IIED), which recently adopted a new Gender Equality Policy[43] that takes an explicitly intersectional approach. Seeing gender equality through the lens of intersectionality, the policy *"challenges us to look at gender and how it interacts with other social characteristics such as age, disability, wealth, and ethnicity to shape systems of privilege and oppression."*[44] The policy lays out IIED's research agenda, which includes:

- Research programme design will use gender intersectional analysis throughout the research cycle to make sure that interventions are equitably beneficial and do no harm to any member of the target 'community', reflecting the needs, interests, priorities and strengths of both women and men.
- Research projects and programmes will use participatory approaches to involve women and men, regardless of their background, age, race, ethnicity, or religion, in all aspects of design, delivery and evaluation, making sure that they, as people with different interests, priorities and strengths, are not excluded from defining the problems they face and in shaping the solutions to those problems.
- Research programmes do not assume women (and men) are a homogeneous group and instead reflect that, as well as gender, other factors such as age, ethnicity, class, caste, disability status, sexual orientation, gender identity and wealth status also shape the experiences of different groups of women (and men) and the issues we seek to tackle.

[43] International Institute for Environment and Development (IIED). (2020). IIED Gender Equality Policy. 3pp. https://pubs.iied.org/g04462

[44] International Institute for Environment and Development (IIED). (6 January 2021). Exploring intersectionality: what does it look like for IIED and our partners? https://www.iied.org/exploring-intersectionality-what-does-it-look-for-iied-our-partners

The policy also includes information on how IIED works with partners, operates, and implementation strategies, but none of these refer specifically to how an intersectional approach would be employed in these areas.

A recent example of IIED's work was the Stronger Voices project[45] in Zanzibar and Northern Tanzania, which co-created a community-based planning toolkit to identify the climate priorities of marginalized groups, including women and young people. This toolkit is explored more in-depth in the case study, "Improving climate-related decision-making and development of adaptation strategies at the intersections of gender and age."

[45] A digital booklet for the project is available online: https://www.tnrf.org/files/StrengtheningVoices.pdf

Case 1 Improving climate-related decision-making and development of adaptation strategies at the intersections of gender and age[46]

Background: The *Pamoja Voices Climate-Resilience Planning Toolkit* was developed collectively with the International Institute for Environment and Development (IIED), Bawakimo, Hakikazi Catalyst and the Pastoralist Women's Council, working together with communities in Monduli and Longido Districts of Northern Tanzania. The toolkit was an output from the 'Strengthening Women and Youth Voices for Climate Action in Tanzania' project[47] funded by the Climate Justice Resilience Fund (CJRF). The toolkit was designed and tested in pastoralist communities in Northern Tanzania and provides a set of guidelines for local actors seeking to enable women, men, and young people from these communities to articulate their priorities for building resilience to climate change and clarify the complex relationships that affect long-term resilience of different types of livelihoods. The intended audience for the tool includes rural communities and their representatives, local government, and community-based organizations (CBOs) aiming to better understand, represent and integrate local climate priorities into adaptation-relevant planning and interventions. The creators of the toolkit believed that achieving greater climate resilience for rural communities will depend on the differing perspectives of all societal groups being included and acted on.

The rationale for the broader project and toolkit development was couched in the reality that men, women, and young people often have differing livelihoods because of cultural norms and traditional rules, and as a result they have different priorities for responding to climate change. For example, in pastoralist livestock keeping and farming areas of Tanzania, young men are often responsible for herding livestock, while young women may be responsible for caring for small children and collecting water for the household (FN 52, p.15). Older men may be responsible for vaccinating animals or managing the mobility of the herd, while older women may be responsible for milking the animals and/or selling milk. These examples highlight how traditional gender and age roles are strongly linked in pastoral communities. In addition to patterning the daily livelihood activities of men, women, boys, and girls, traditional roles may exclude some community members from decision-making, making particular groups more vulnerable to climate change. For example, in Northern Tanzania, traditional gender roles dictate that women and girls cannot usually own or make decisions about livestock. Given that younger men travel far from home in the dry season or droughts to find pasture areas for the herd, women's and girls' vulnerability to food insecurity would increase as they are unable to sell livestock to meet urgent household needs/respond to climate shocks (FN 52, p.15).

These dynamics are aligned with the broader observation that: *"In rural settings, marginalized groups including women or young people with little education are often the most vulnerable to climate risks due to their reliance on natural resources that are heavily impacted during climate changes and shocks. Their*

[46] Pertaub, D., Greene, S., Sutz, P., Kigashe, A., Clamian, T. and Alakara, S. (2020). Pamoja voices climate-resilience planning toolkit. To support inclusive climate-resilient planning for rural communities. IIED, London. http://pubs.iied.org/10204IIED

[47] For a full list of project outputs, see: https://www.iied.org/strengthening-voices-women-young-people-shaping-local-climate-action

marginalization typically means they have limited access or equal participation in planning spaces where decisions are made that shape their livelihoods" (FN 54, p.4).

While this toolkit was piloted with a focus on gender and age as the most significant factors for marginalization within the Pamoja community, it was recognized that these were not the only determinants of marginalization. For future applications, the toolkit could equally be applied to other identities within a community, such as people with disabilities or minority/indigenous groups.

Intersectional approach: The toolkit used an explicitly intersectional framing that focused on the intergenerational and gender gaps that exist at the intersection of gender and age. In this way, the toolkit was designed to identify the different resilience building and climate change priorities of four separate, but closely related 'target' groups: 1) young men; 2) young women; 3) mature men; and 4) mature women. A key feature of the tool is to separate participants of the workshops into these four groups, to create 'safe spaces' where participants would feel free to share their opinions without fear of negative consequences.' The rationale behind these separate target groups was that *"women and young people in rural communities can often experience the impacts of climate change in different ways. They may also utilize natural resources differently from men (and each other), which in turn means they have differing climate-resilience priorities. However, the ability of women and young people to express these priorities is often limited, as cultural norms limit their freedom to speak openly without fear of retribution, while representation in both formal and informal decision-making forums is frequently lacking"* (FN 52. p.8). To this end, the toolkit is made up of five interlinked activities which draw on participatory learning and action approaches to planning and knowledge sharing.[48]

- The '**Seasonal calendar'** activity articulates the main characteristics of livelihoods, food, and income generation by describing the activities and strategic challenges of specific groups (in this case, older and younger men, and women) in responding to seasonal change and variability of climate.
- The **'Lived experience of climate change'** activity identifies how climate challenges affect men, women, and young people by exploring each groups' perceived climate challenges to livelihoods, impacts and management strategies.
- The **'Gender analysis'** activity documents how key resources are controlled and owned by different groups by explaining gender-defined control and ownership rights over key assets and resources affecting livelihoods. It identifies how gender-defined distribution of rights affects climate resilience.
- The **'Routes to resilience'** activity articulates interventions and solutions that can address challenges faced by women and young people by developing a theory of change for contributing to key factors believed necessary for climate-resilient local livelihoods.

[48] For additional information related to the piloting of the toolkit, see: Greene, S., Pertaub, D., McIvor, S., Beauchamp, E. and Philippine, S. (2020) Understanding local climate priorities: applying a gender and generation focused planning tool in mainland Tanzania and Zanzibar. IIED, London. http://pubs.iied.org/10210IIED

- The **'Stakeholder mapping'** activity involves reviewing stakeholders and their role in supporting gender and climate actions at local level by identifying the formal and informal stakeholders in the community and their current perceived contribution to the theories of change.

Specific findings from each of the activities are listed below for additional context:

The Seasonal calendar: The seasonal calendar activity assessed how the structural allocation of duties meant that women and men of varying ages were exposed to different seasonal climate impacts and faced distinctive challenges in accessing and using resources during the long dry season and two wet seasons. For example, in the long dry season, young women's livelihood activities center on provisioning the homestead (water, food, and fuelwood), care of small children and the elderly, and care of animals left at home. Their associated livelihood challenges were a lack of nearby water means, time-consuming trips to distant locations and risk of gender-based violence, not enough food for pregnant women, and husbands are away with livestock which creates a lack of support and threat of gender-based violence from other men. In contrast, the livelihood activities of young men were different. In the dry season young men are involved in herding activities and travelling away from home to distant sources of water and pasture. Their livelihood challenges revolve around the harsh conditions and demanding workload with little food, livestock death, and conflicts with other herders and wild animals over resources. Essentially, differentiated roles based on gender and age create differentiated challenges and vulnerabilities, which subsequently generate differentiated coping mechanisms and strategies for resilience (FN 54, p.14).

The **'Lived experience of climate change'**: This activity detailed how younger and older women and men experienced historical episodes of drought, flooding and erratic and slow-onset changes including rising temperatures and shorter rainy seasons. Using the 2009 drought as an example, older men discussed their challenges for livestock mobility and the loss of animals. Older women recalled difficulties in food provisioning for their households while 'male household heads' were absent for an entire year (FN 54, p.15).

The **'Gender analysis':** This activity looked at how key resources (cattle, water, money and family land) are accessed and controlled by different people, and the implications for climate resilience. For example, with regards to family land, everyone in the family has access, with women and young men performing agricultural tasks. Family land tends to be controlled by either male household heads, or their male children. Women can own land but cannot inherit it. Customs are changing with some villages more accepting of female land ownership than others. The implications for climate resilience are that young women are completely dependent upon their male relatives of husbands for land to farm and for agricultural tools and inputs. This limits their ability to prepare for and respond to climate impacts (FN 54, p.16).

The 'Routes to resilience': This activity highlighted the different and overlapping climate-resilience priorities amongst older and young women and men, and the causal pathways through which interventions could contribute to increased resilience for each group. For example, older men prioritized healthy livestock, because the herd is the pastoralist household's main asset and store of wealth, while

younger men prioritized formal education, reflecting an increasing alienation from traditional pastoralist livelihoods. While some young men did prioritize interventions in line with traditional livelihoods (e.g., improved access to veterinary care), other discussed exiting pastoralism entirely, opting for a 'modern' way of life in the towns (FN 54, p.18).

Other groups converged on priorities, for example, both younger and older women prioritized access to water, and identified actions and recommendations for strengthening water infrastructure and governance. Given that domestic water usage was a priority, *"reducing journey times for fetching water was critical to building climate resilience and their preferred interventions included improved service provision for villages and water storage tanks. Young women stressed that shorter journeys would reduce the risk of gender-based violence when travelling alone. Small adjustments to water investments could have notable impacts, such as the provision of dedicated taps for domestic use, built away from livestock troughs to prevent them being dominated by male herders. Both older and younger women explained that interventions should be complemented by improved governance, such as timetabled access to water resources backed by public village bylaws, and younger women in particular wanted more gender responsive local water committees that met regularly, repaired infrastructure for domestic supply as a priority, and included and gave voice to women"* (FN 54, p.18).

The 'Stakeholder mapping': During the stakeholder mapping activity, the groups identified the organizations they believed to be currently working in the community and rated their perceived contribution to their group's resilience goals. Older men were the most knowledgeable of all the groups about external actors' activities, followed by young men and older women. Young women were the least well informed about other stakeholders (FN 54, p.18).

Overall, the findings from the piloting of the toolkit revealed intergenerational differences between younger and older participants across genders: "*Young men in the Tanzania mainland case study placed a high emphasis on formal education as well as opportunities to establish their own businesses beyond the limits of pastoralist livestock keeping. Similarly, young women in the pastoralist contexts wanted financial access to begin to support themselves and to be less dependent on their households or husbands. These differences may reflect a desire of younger participants to diversify livelihoods given the many emerging challenges, but also greater interaction with formal education and proximity to markets that promote greater independence"* (FN 54, p.26).

"Separating young people in each context highlighted intergeneration gaps, which indicate that failure to include young people in governance of resources or create access to opportunities will have unpredictable, and potentially negative consequences. In Northern Tanzania there is a history of young men becoming security guards in urban centres and remitting part of their salary home, but there is a risk that they leave home with few opportunities available and to riskier environments. Young women face their own specific challenges. They often have weaker Swahili or English and traditional skills that may not be relevant in Tanzania's fast-changing economy. And yet, young people demonstrated willingness to develop their own businesses in situ in all case study sites — requesting mainly for their contribution and agency to be valued and appreciated" (FN 54, p.26-27).

Lesson learned/outcome: The process of using the toolkit provides a richer understanding of vulnerability to climate change, as perceived and experienced by the four target groups across different genders and ages. In the pilot, the toolkit activities were effective in articulating different resilience-building priorities for older men, older women, young men and young women to understand their intergenerational knowledge, challenges and adaptation priorities. In doing so, it demonstrated how qualitative discussion tools can contribute to effective planning, problem identification and prioritization. By including gender analysis exercises, it effectively articulated the power dynamics at play associated with gender that reinforce vulnerability. These exercises provide a basis for planning at local level, which may contribute to gender-transformative adaptation responses.

Grounded in the reality that existing and desired future livelihood strategies in response to climate vulnerability are patterned by gender and age differentials, the priorities of women, men, and youth can emerge through the toolkit activities which revolve around structured discussions around a participatory climate vulnerability assessment. Through the assessment, *"community members can carefully and logically consider the most significant threats to their livelihoods, identify the most effective responses, and evaluate the quality of support currently available"* (FN 52, p.10).For example, the first activity described in the toolkit uses a seasonal calendar to document how the distinctive activities of men, women and young people resulted in very different seasonal challenges in accessing resources and different exposure profiles for climate hazards. The tool explored how traditional gender norms constrained the ability of older and younger men and women to be climate resilient, and the implications of this for the whole community. Finally, the tool provided a space in which each group could articulate a set of priority areas and recommended interventions tailored specifically to their climate resilience needs (FN 52, p.19)

Good practice recommendation(s): The Pamoja toolkit indicates that given differing community priorities towards climate adaption and resilience, it is necessary to capture the varied experiences of women and men (and non-binary people) of different ages to ensure inclusive planning for climate adaptation at local levels and to enable the most vulnerable to recognize and respond to climate risks though concerted action. By providing tools to explicitly gather these views, the toolkit offers a "*more diverse and comprehensive picture of community-based adaption"* (p.9). While the climate vulnerability assessment helps identify the differing priorities amongst the target groups, the toolkit also helps link these priorities to the relationships between different groups in the community, exploring the powers that each group has over others and their capabilities in carrying out different tasks (p.11). As the toolkit illustrates, understanding the power differentials between different men, women and young people of different genders is necessary towards:

- Identifying potential risks and vulnerabilities amongst these different groups.
- Understanding the rationale behind the existing and aspirational livelihood strategies amongst these different groups.
- Taking the above together, creating plans of action that incorporate the perspectives of these different groups in designing climate resilience interventions that are representative of their different needs and aspirations.

A second example of an applied GESI approach is USAID and the Feed the Future program, which have mainstreamed GESI in their projects in Africa[49] and Asia.[50] USAID considers its approach to be inherently "intersectional": *"By its nature, GESI brings in an intersectional focus, recognizing that a person may be excluded in profound ways due to the combination of their gender, age, ethnicity and other aspects of social and cultural identity."*[51] Their use of a GESI perspective is, *"meant to avoid the perpetuation or worsening of any disparities related to gender and other social factors and pays close attention to the voices and needs of communities that tend to be vulnerable and marginalized such as women, youth, and ethnic minorities. GESI also works to reduce such inequalities where possible, and to uplift groups that are traditionally marginalized" (ibid*).

USAID has given a unique name to their strategy to integrate an intersectional approach into their agenda, termed GESI mainstreaming. *"GESI mainstreaming refers to a process of assessing how legislation, policies, programs and other planned actions affect women, men, youth and other social groups differently at all levels. It is a strategy for making the priorities, concerns and experiences of women, youth, and other vulnerable groups an integral component in the design, implementation, monitoring and evaluation of policies and programs in all political, economic, and social spheres. This often requires a conscious effort to ensure that inequality between men and women as well as other social groups is not perpetuated or exacerbated. The goal is to achieve gender equality and social inclusion." (ibid.)*

In 2018, USAID compiled their best practices for integrating GESI within Nepal's Agricultural extension system. A description of this is provided in case study 2, "Towards intersectional approaches to agricultural extension?: Feed the Future and GESI." It highlights the potential of the GESI approach as currently applied by USAID to integrate more comprehensively intersectional assessments by further differentiating and addressing the needs, capabilities, and agency of sub-sections of vulnerable and marginalized population groups using gender analysis as the primary lens.

[49] USAID/West Africa Biodiversity and Climate Change (WA BiCC). (2018). Gender Equality and Social Inclusion (GESI) Guidelines, 2nd Labone Link, North Labone, Accra – Ghana. 13p. https://pdf.usaid.gov/pdf_docs/PA00WQDN.pdf

[50] McNamara, K. and L. Harris-Coble. (2018). Best practices for integrating gender equity and social inclusion (GESI) strategies within Nepal's Agricultural Extension System. http://ingenaes.illinois.edu/wp-content/uploads/ING-TN-2018_06-Gender-Equity-and-Social-Inclusion-GESI-Strategies-Nepal-Harris-Coble.pdf

[51] USAID/West Africa Biodiversity and Climate Change (WA BiCC). (2018). Gender Equality and Social Inclusion (GESI) Guidelines, 2nd Labone Link, North Labone, Accra – Ghana. 13p. https://pdf.usaid.gov/pdf_docs/PA00WQDN.pdf

Case 2 Towards intersectional approaches to agricultural extension?: Feed the Future and GESI[52]

Background: Feed the Future (FTF)[53] is the U.S. Government's global hunger and food security initiative. In 2018, FTF commissioned a review of current practices for mainstreaming GESI in Nepal, with the experiences, lessons learned, and good practices surrounding GESI mainstreaming in agricultural projects collated. GESI mainstreaming refers to the *"explicit, systematic attention to the relevant perspectives, knowledge, experience, and interests of men, women, the socially included and excluded, and religious and ethnic groups. This involves assessing the implications of all involved groups within any planned intervention or policy."*[54] The Government of Nepal adopted a GESI framework for the planning, programming, monitoring, and evaluation of its 2008-2010 Three Year Interim Plan with the objective of ensuring inclusive growth within its agricultural sector by eliminating structural barriers related to gender and social inequalities. To capture best practices and project examples of GESI in action in Nepal, FTF reviewed current practices for mainstreaming GESI and interviewed stakeholders in Kathmandu, Nepal who shared their experiences, lessons learnt, and good practices for integrating GESI mainstreaming in agricultural projects.

The GESI approach is described as intended to work in two steps: first, the barriers faced by excluded groups (i.e., 'women', 'low caste', and 'ethnic minorities') to a program or policy should be identified; and then second, solutions within the policies or program should be created to help excluded groups overcome the barriers identified. The GESI approach also involves the collection of data disaggregated by gender and caste/ethnicity. It "*incorporates intersectionality by differentiating between the needs of women from different groups*."[55] The authors of the review note that *"although the theoretical underpinnings of the GESI framework are strong, it has been difficult to fully translate GESI from theory to practice"* (p.3).

Intersectional approach: The agricultural extension system in Nepal is embedded in historical patterns of inequality and exclusionism. While these historical exclusions were originally rooted in the Hindu caste system, feudalism, and patriarchy (all of which are no longer formally integrated in Nepal's government), the informal *"behaviors, perceptions, norms, and values that sustain those systems continue to influence the social mobility, health, and wellbeing of Nepali people."*[56] Across time, the intersections of gender, ethnicity, geographical location, and the Hindu caste system have patterned how and whether different sub-groups of men and women (divided among ethnicity, caste, and locations) are able to access land, extension services, and agricultural inputs. For example, the review notes that at the household, community, and policy level, "powerholders" (i.e., husbands, mothers- and fathers-in-law, high-caste

[52] McNamara, K. and L. Harris-Coble. (2018). Best practices for integrating gender equity and social inclusion (GESI) strategies within Nepal's Agricultural Extension System. http://ingenaes.illinois.edu/wp-content/uploads/ING-TN-2018_06-Gender-Equity-and-Social-Inclusion-GESI-Strategies-Nepal-Harris-Coble.pdf

[53] https://www.feedthefuture.gov/about/

[54] Referenced in case study text as (UN, 2002), original source: United Nations. (2002). Gender Mainstreaming: An Overview. New York, NY. Retrieved from: http://www.un.org/womenwatch/osagi/pef/e65237.pdf. Cited in McNamara and Harris-Coble (2019), p.1.

[55] Bennett, L., Sijapati, B., and Thapa, D. (2013). *Gender and social exclusion in Nepal: Update*. Himal Books.

[56] Nightengale (2011), cited in Cited in McNamara and Harris-Coble (2019), p.1.

community members, and high-caste leaders) generally maintain a higher position relative to women, members of lower castes (Dalits)[57], and ethnic minorities (Janajatis)[58]. However, the *"power dynamics between powerholders and marginalized groups are highly complex and vary across time, spaces, as well as between individuals"* (p.1).

While the GESI work in Nepal was clearly trying to draw out the importance of addressing intersectional differentiation, it missed its target by leaving unacknowledged the intersectional differentiation within so-called "marginalized groups" which were never disaggregated beyond "women", "Dalits" or "Janajatis." Learning about the differences in access to agricultural extension between not only 'women' and 'men', but also different sub-groups of women and men would be incredibly useful in identifying the opportunities, constraints and needs of different groups of people identified by divergent intersecting characteristics and to better understanding compounding/multiple vulnerabilities. For example, how do women in relative positions of power in Janajatis communities (i.e., mothers-in-law) exercise power over women with lesser power? Does this impact how other women in their community or household are able to access information or make decisions? Would they be able to exercise this same level of power over women in Dalit communities?) Being able to draw out the intersectional differentiation amongst the "sub-groups" of men and women that were targeted for the GESI intervention would be key to designing and implementing inclusive programming.

Lesson learned/outcome: The findings of the review revealed several GESI best practices for agricultural programs in Nepal, noting that these should be applied concurrently and complementarily and that just applying a single one is not enough. For example, while the review highlighted that participation quotas to increase the participation and representation of excluded groups was important, they do not work on their own: *"While setting benchmarks for women's and marginalized group's participation in agricultural programs can be effective at increasing their involvement in agricultural groups, quotas are not a complete GESI strategy on their own. This is because participation alone in development projects does not equal empowerment due to gender and social inequities that perpetuate the inequitable distribution of resources" (p.4).*

Best practices listed for using participation quotas included (p.5):

- Integrating the representation of women, Dalits and Janajatis throughout the organization, not limiting participation quotas to the farmer's group or community levels.
- Extending targeted trainings in GESI to all members of the organization (i.e., program managers, specialists, program staff) as well as field-level staff.
- Including Dalits and Janajatis alongside Brahmins in group meetings challenges social norms that perpetuate isolation of lower caste groups.

[57] "Dalits are members of the lowest caste in Nepal. Historically, Dalits were excluded from public water taps, restricted from interaction with and entry to the homes of upper caste (Brahmin and Chhetri) homes, experienced unfair citizen and land rights, and were unrepresented in positions of power. Previously referred to as "untouchables," Dalit people have begun to improve their social and political standing since the Maoist revolution" (p.2).

[58] "Janajatis include groups of ethnic minorities that have been integrated within the Hindu caste system. Although Janajatis are not typically Hindus, their placement in the Hindu hierarchal system has historically resulted in their exclusion in political and social realms in Nepal" (p.2).

Again, in relation to the critique of needing to consider intra-group differences in GESI, with regards to participation quotas, it would be useful to target quotas at each of the marginalized sub-groups identified (i.e., reserving spaces of representation for women of different generations/positions within the household from both Dalit and Janajatis communities).

Best practices for working with "powerholders" (including men, mothers-in-law, community leaders, and high caste groups) included:

- Combine women's participation requirements with gender-sensitive information, education, and communication with powerholders in the household and community (i.e., men, mothers-in-law, community leaders, and high caste groups) complementary to programming delivered to women and marginalized groups. This will more effectively target the underlying causes of women's and marginalized group's disempowerment in Nepal.
- Credit groups and participatory learning groups further inclusion by facilitating collaboration between members of different castes and ethnic affiliations.
- Improve awareness about equitable household food allocation. Women in rural Nepal tend to favor men and elders (husbands, fathers-in-law, and mothers-in-law) in the distribution of food resources.

To bring forward analysis of intra-group differences and a more fully intersectional approach to working with powerholders, it would be important to ensure equal representation across sub-groups of people from 'marginalized groups' as noted above.

Best practices were also listed for projects to address time poverty and male out-migration, but all of these recommendations were "women" focused, with none mentioning caste or ethnicity in relation to gender. The last set of recommendations were around the monitoring and evaluating impact of GESI activities, all of which are based around sex-disaggregated data collection and analysis (p.8).

- The collection of disaggregated data makes groups involved in the project, particularly vulnerable groups, more visible within the project. The importance of disaggregating caste and other social designations aside from gender is important because this can reveal that women, men and gender nonbinary people are not homogenous groups, highlighting the different needs of each gendered group and their unique needs from the project.
- Gender disaggregated data can highlight potential gaps between men and women. With this information, projects can monitor whether project activities are increasing or decreasing gaps in assets, income, free time, and other key indicators between men and women.
- Data disaggregated by caste, gender, and ethnicity can improve evidence-based practice of development. More specifically, identifying what works in projects to promote GESI and what elements can be expanded and improved for future projects.
- The collection of group-disaggregated data can highlight the impact that changes in GESI can have on other development outcomes such as poverty, health status, or agricultural productivity.

Good practice recommendation(s): This review of GESI mainstreaming best practices emphasizes the need to carefully consider how projects can engage with existing gender norms (and how they are intertwined with caste and intra-household relationships). In particular, the project found that *"community-based, participatory interventions which include activities that target and include all members of the household and community in engaging group activities are the most effective at improving uptake of information related to empowerment, including decision making and control over agricultural resources"* (p.5).

With regards to how the application of GESI could move towards an intersectional approach, future work could incorporate intersectionality by differentiating between the needs of several sub-groups of women and men and non-binary people from different castes or ethnicities, thus identifying multiple target groups. The GESI approach pursued by FTF acknowledges that continuing inequitable power dynamics continue to marginalize women based on their sex, caste group, and ethnicity – examining intersectional differentiation within these groups would be a small but necessary step to understand the ongoing, intersecting, and multiple (mutually reinforcing) inequalities that have resulted in different opportunities and exclusions among different sub-groups of women for agricultural extension services. Beyond examining the intersecting inequalities along gender, caste, and ethnicity, future adaptation-relevant work should also consider family structure differences (e.g., intra-household positioning of mothers or daughters-in law, widowers, etc.) in creating inclusive and responsive interventions that target, benefit, and empower people in all of their diversity.

The last framing approach involves incorporating the concept of intersectionality into gender mainstreaming in a less-systematic way. At present, this is the approach taken by the Global Environment Facility (GEF). According to their Guidance to Advance Gender Equality in GEF Projects and Programs document of 2018, GEF-Financed Activities are *"conducted, designed, and implemented in an inclusive manner so that women's participation and voice are, regardless of background, age, race, ethnicity, or religion, reflected in decision-making, and that consultations with women's organizations, including Indigenous women and local women's groups, are supported at all scales" (p.5).*

For example, in their recommendations for a gender-responsive indicators framework, GEF states that, *"a core component of tracking gender results is the formulation of sex-disaggregated and gender-sensitive indicators. All beneficiary-level indicators and targets should be disaggregated by sex (as well as age, class, or ethnic origin to identify sub-groups of men and women) wherever possible. For example, rather than targeting only women, an indicator could look specifically at improvements for the situation of indigenous women who potentially face different challenges, not only from indigenous men (owing to the gendered division of labor in indigenous cultures) but also from other women."*[59] (ibid, p.14) Furthermore, GEF suggests guiding questions when forming gender-sensitive indicators could include: *Are indicators, to the extent possible, sex disaggregated (reflecting also sub-groups of men and women according to age or ethnic origin)?* (ibid, p.14)

The Adaptation Fund has used a similar approach of implicitly highlighting intersectionality, as evidenced by their ESP (developed in 2013) and the Gender Guidance Document (developed in 2017). The ESP is intended to *"ensure that in furthering the Fund's mission of addressing the adverse impacts of and risks posed by climate change, projects and programmes supported by the Fund do not result in unnecessary environmental and social harms*" (ESP, p.1). The ESP lays out 15 environmental and social principles to guide the projects/programmes supported by the Fund, several of which are highly relevant to intersectional approaches, including: Marginalized and Vulnerable Groups, Human Rights, Gender Equality and Women's Empowerment, Core Labour Rights, Indigenous Peoples, Public Health, and Physical and Cultural Heritage, among others.

Specifically, Principle 3: Marginalized and Vulnerable Groups ensures that: *Projects/programmes supported by the Fund shall avoid imposing any disproportionate adverse impacts on marginalized and vulnerable groups including children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS. In screening any proposed project/programme, the implementing entities shall assess and consider particular impacts on marginalized and vulnerable groups* (ESP, p.4, para 14). This principle indicates that the role of membership in different "intersections" of social groups and individual identities could influence a person's vulnerability and marginalization, which provides a firm foundation towards a more explicitly intersectional approach. At present, these principles are being practically applied, for example, a requirement for meeting the ESP (and a standard funding requirement for the AF) is whether there is engagement with marginalized voices (e.g., according to sex, sexuality, age, income, ethnicity, ability, status, or religion).

[59] Global Environment Facility (GEF). (2018). Guidance to Advance Gender Equality in GEF Projects and Programs. p.14 https://www.thegef.org/sites/default/files/publications/GEF%20Guidance%20on%20Gender.pdf

The AF ESP Guidance document also states that, *"Using accepted methods based on disaggregated data, where possible, the IE should identify and quantify the groups mentioned in the principle (children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS) as well as any groups identified additionally such as seasonal migrants or illegal aliens" (p.7).* However, the implicit incorporation of elements of an intersectional approach (such as identifying sub-groups), are not just related to data collection (as a quantitative assessment) but are also evident in project planning, initial analysis, qualitative assessments, and performance reporting requirements.

For example, if any marginalized or vulnerable groups are present, AF Implementing Entities are guided to:

- Describe the characteristics of the marginalized or vulnerable groups.
- Identify adverse impacts that each marginalized and vulnerable group are likely to experience from the project/programme, taking into consideration the specific needs, limitations, constraints, and requirements of each group. For example, a small detour or the construction of a minor obstacle for most able-bodied people could be an insurmountable obstacle to wheelchair users or persons with certain disabilities. These are examples of disproportionate adverse impacts.
- Describe how the impacts are not disproportionate compared to non-marginalized and non-vulnerable groups, or how they can be mitigated or prevented so as not to be disproportionate. These mitigation measures could be design or operational features of infrastructure, or access guarantees to project benefits for those without complete administrative files such as refugees and internally displaced persons or tribal groups.
- Describe monitoring that may be needed during project/programme implementation for the possible occurrence of disproportionate adverse impacts on marginalized and vulnerable groups, as situations may change over time (e.g., the arrival of refugees or internally displaced persons) (ibid, p.7)

Taking an incrementally deeper approach towards intersectionality, The AF Gender Guidance Document has multiple references implicitly highlighting intersectionality, particularly in relation to the need for intersectional data collection and indicator setting during the initial gender assessment, which is " *a tool for identifying the differences and providing empirical evidence in the form of qualitative and quantitative data for gender roles, activities, needs, and available opportunities and challenges or risks for men and women within a particular context or sector"* (ibid, Para. 15, p.5).

AF Implementing Entities are guided to engage in implicitly intersectional data collection by: *"Gathering and collecting data should be gender-responsive and reflect the realities of women and men by breaking down the data not only by sex (male/female), but ideally also by age and other diversity factors such as ethnic origin and in response to questions that consider existing gender concerns and differentials"* (ibid, Para. 17, p.6).

The Gender Guidance Document articulates the need for gathering gender-disaggregated data in adaptation-relevant interventions, and the importance of such an approach in gaining a holistic understanding of intersecting and compounding inequalities to inform project strategies:

While sex-disaggregated data focuses on breaking down data by sex for males or females only (for example how many men and women might live in the project area), gender disaggregated data in addition to being broken down by sex is also produced by taking into consideration the different socio-economic realities that men and women face in addressing climate change. For gender-disaggregated data, this means looking at which type of data is collected and how data questions are formulated to consider existing gender concerns and differentials (for example how many men and women in the project area have independent income, are aware of climate change, are part of decision-making bodies in the communities served). ***In addition, because the communities in which projects/programmes will be implemented are rarely homogeneous units, it might be important to break down the groups of men and women respectively by other social identities such as age or ethnic origin in order to monitor gender responsive benefits. For example, in a water access or food security project, it might be useful to monitor whether girls, who often are kept out of school to help with such increased care challenges in the face of climate change impacts, are freed from the time-burden of food production or water carrying and can now attend school. Likewise, in a project that focuses on climate education for women, the information outreach approach to forest-dependent indigenous women might be very different from approaches to reach urban women. Data disaggregated only by sex would not capture this in the analysis****. In terms of how such data is collected, any methodology should include both women and men (see section on gender-responsive consultation) and might include focus groups divided by age or ethnicity in addition to division by gender. For example, when conducting participatory assessment with male and female stakeholders, in a mixed group in some cultures women might not speak out on certain issues in front of men or vice versa. Also, the team sent to the field for collecting data should include women to ensure better access to female participants* (ibid., Box 1: Gathering and Collecting Gender-Disaggregated Data, after Para 18, p.6).

The Gender Guidance Document also highlights the rationale for using an (implicitly) intersectional approach to indicator development: *"All indicators should be disaggregated by sex (as well as age, class or ethnic origin to identify sub-groups of men and women) wherever possible. For example, rather than targeting just women, an indicator could look specifically at improvements for the situation of indigenous women, who face very different adaptation challenges not only from indigenous men (owing to the gendered division of labor in indigenous cultures) but also from other women such as female farm workers. Indicators should set targets towards a goal of equal participation and representation of women and men (with for example, in case of a low baseline progressively increasing targets for the project throughout the implementation time-frame), especially in decision-making processes and bodies under the project/programme"* (ibid, Para. 33, p.11).

Beyond the use of quantitative data and indicators, the Gender Guidance Document highlights the importance of qualitative gender-responsive indicators: *Qualitative methodologies capture people's experiences, opinions, attitudes, and feelings. A qualitative gender-responsive indicator might focus on*

women's experiences of the constraints in accessing agricultural extension services or their views on the best way to address those barriers and if they have been applied in a given project. Often participatory methodologies such as focus group discussions and social mapping tools are used to collect data for qualitative indicators. Qualitative data can also be collected through surveys measuring perceptions and opinions. Results of qualitative gender-responsive indicators are usually reported as narrative assessment, rather than by a simple number, percentage, or ratio (ibid., Box 2: Quantitative and Qualitative Gender-Responsive Indicators, after para 34, p.11).[60]

Beyond the ESP and Gender Guidance Document, more recently the AF explicitly introduced the concept of intersectionality in their Updated Gender Policy (although it is not yet mandatory for implementing entities). As described in a recent assessment of the AF's original GP and as evidenced by the existing Gender Guidance Document and ESP, the AF has set a firm foundation for going further and making the consideration of intersectionality more systematic in their approach to gender mainstreaming. The assessment's recommendation towards shifting towards a more intersectional approach indicates the importance of iterative monitoring in ensuring GPs are 'fit for purpose' in the context of evolving understandings of gender. As a step towards this, the need of considering the intersectionality of gender with other sociocultural factors is explicitly articulated in the updated AF GP:

"The Fund's gender policy builds on the existing gender policies and gender action plans of other climate funds. It systematically integrates key principles elaborated in the Fund's own environmental and social Policy (ESP), especially the principles on access and equity, on consideration of marginalized and vulnerable groups and of human rights. It highlights the principle of gender equality and women's empowerment as the goal that the Fund strives to attain through its processes. It acknowledges and integrates the need to apply ***an intersectional analysis*** *in addressing gender-related differences in vulnerability and ability to decrease vulnerability and adapt to climate change impacts as a lens to understand the complexity and particularity of inequalities in the lives of women and girls, men, and boys, including their systemic barriers and root causes. Those are dependent on a multitude of factors such as the economic profile and societal structure of the country or subnational region, specific climate impacts, variety of livelihoods, a host of sociocultural factors such a class, age, or race as well as other change processes in societies, such as those brought on by globalization, migration, urbanization, and economic development. It is expected for those changes to lead to new adaptation challenges for women and girls, and men and boys respectively. To ensure resilience of entire societies, those gender-differentiated adaptation needs must be addressed in a comprehensive, forward-looking and adaptive manner"* (updated GP, p.4, para 7).

Explicit references to recognizing and/or using intersectional approaches are also embedded in the GP's objectives and guiding principles. Several examples are listed below:

The Fund's gender policy has the following objectives:

[60] The Project Performance Template ("PPR Template") for project performance and reporting is available online at https://www.adaptation-fund.org/projects-programmes/project-performance/.

(a) To ensure that the Fund will achieve more effective, sustainable and equitable adaptation outcomes and impacts in both its internal and external procedures that pro-actively analyze and seek to address dynamic interlinkages between enhancing gender equality, the empowerment of women and girls, adaptation needs and other societal challenges, vulnerabilities and exclusions that women and girls, men and boys and their communities face, and doing so in an ***intersectional manner****, and that do not exacerbate but instead redress existing gender-based inequalities and close existing gender gaps;* (updated GP, p.8-9, para 11)

The Fund's gender policy has the following guiding principles:
a) Adopting and promoting methods, tools and installing mechanisms to proactively advance gender equality, including addressing power imbalances and facilitating the transformation of inequal gender roles, and reduce existing gender discriminations and social, political and economic disparities in its funding operations and throughout the project cycle, ***recognizing the intersectionality of existing gender inequalities and exclusions****; and*

b) Measuring and reporting the outcomes and impacts of its activities on the resilience of women and girls, men and boys to climate change impacts and their ability and agency to address gender differentiated vulnerability to climate change in ***an intersectional manner*** (updated GP, p.9, para 13).

"Fund IEs will be required to undertake an initial project/programme-specific gender assessment with a view to establishing a gender baseline, describing gender differences, analyzing gender-differentiated impacts and risks as per the ESP process ("do no harm"), and to detailing opportunities to pro-actively address gender gaps given their ***intersectionalities*** *as well as to promote the empowerment of women and girls for the proposed activity ("do good")* (updated GP, p.10, para 16).

In sum, while "intersectionality" is a relatively new term in both gender mainstreaming and adaptation-relevant interventions, the practice of identifying how different issues, constraints and opportunities exist for gender diverse groups of people (women, men, boys, girls, and non-binary people) with different sociocultural factors has been used for many years across different types of adaptation-relevant interventions.

The following section details the analytic approaches that have been used to engage in intersectional analyses towards gender mainstreaming in adaptation-relevant interventions.

3.2. Analytic approaches to incorporating intersectionality and relevant case studies

Key Intersections Analyzed

Intersectional gender analysis refers to the process of analysing *"how gender power relations intersect with other social stratifiers to affect people's lives; creates differences in needs and experiences; and how policies, services and programmes can help to address these differences."*[61]

Applied to the context of adaptation, intersectional approaches recognize that people have different identities, needs, priorities, and capacities which are not static, and will shift and change over time – affecting their ability to adapt to climate change.[62] Within the adaptation-relevant literature, intersectional approaches have been used to understand how different axes of experience and identity interact to produce different effects that cannot be explained by analyzing single categories.[63] Many different intersections of identity and social positionality have been explored using an intersectional lens, including gender and age[64], race[65], ethnicity[66], indigeneity[67], religion[68], class[69], caste[70], gender positions within the household (e.g., daughter-in-law)[71], marital status (single, widower)[72], LGBTQ+ identity[73], land

[61] World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. (p.11) https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

[62] Chaplin, D., Twigg, J., and Lovell, E. (2019). 'Intersectional approaches to vulnerability reduction and resilience building: a scoping study'. *Resilience Intel*. London: BRACED and OD. https://odi.org/en/publications/intersectional-approaches-to-vulnerability-reduction-and-resilience-building/

[63] Clement et al. (2019). From women's empowerment to food security: Revisiting global discourses through a cross-country analysis, *Global Food Security*, vol. 23, pp.160-172. https://doi.org/10.1016/j.gfs.2019.05.003

[64] Wood, A.L., Ansah, P., Rivers, L., Ligmann-Zielinska, A. (2019). Examining climate change and food security in Ghana through an intersectional framework. *The Journal of Peasant Studies*, 1-20. https://doi.org/10.1080/03066150.2019.1655639

[65] Godfrey, P. (2012). Introduction: Race, Gender & Class and Climate Change. *Race, Gender & Class, 19*(1/2), 3-11. Retrieved June 17, 2021, from http://www.jstor.org/stable/43496857

[66] Ngum, F., & Bastiaensen, J. (2021). Intersectional Perspective of Strengthening Climate Change Adaptation of Agrarian Women in Cameroon. In African Handbook of Climate Change Adaptation (pp. 2169-2191). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-45106-6_213

[67] Vinyeta, Kirsten, Powys Whyte, Kyle, and Lynn, Kathy. (2015). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States. Gen. Tech. Rep. PNW-GTR-923. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 72 p. https://www.fs.fed.us/pnw/pubs/pnw_gtr923.pdf

[68] Rankoana, S. A. (2016). Rainfall scarcity and its impacts on subsistence farming: The role of gender and religious rituals in adaptation to change. *Agenda*, 30(3), 124-131. https://doi.org/10.1080/10130950.2016.1259867

[69] Arora, S. (2020). Intersectional vulnerability in post disaster contexts: lived experiences of Dalit women after the Nepal earthquake, 2015. *Disasters*. https://doi.org/10.1111/disa.12471

[70] Kakkar, Deepti. (2020). Caste, Gender and Jati: An Intersectional Analysis Aimed at Better Targeting Poverty Alleviation and Women's Empowerment in Bihar, Orissa and Tamil Nadu (English). South Asia Agriculture and Rural Growth Impact Note; no. 7 Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/687101590647049640/Caste-Gender-and-Jati-An-Intersectional-Analysis-Aimed-at-Better-Targeting-Poverty-Alleviation-and-Women-s-Empowerment-in-Bihar-Orissa-and-Tamil-Nadu

[71] Tanjeela, M., & Rutherford, S. (2018). The Influence of Gender Relations on Women's Involvement and Experience in Climate Change Adaptation Programs in Bangladesh. *SAGE Open*, *8*(4), 1-9. https://doi.org/10.1177/2158244018812620

[72] Van Aelst, K., & Holvoet, N. (2016). Intersections of gender and marital status in accessing climate change adaptation: Evidence from rural Tanzania. *World development*, 79, 40-50. https://doi.org/10.1016/j.worlddev.2015.11.003

[73] Behal, Anuj. (11 January 2021). How climate change is affecting the LGBTQIA+ community. *DownToEarth.* https://www.downtoearth.org.in/blog/environment/how-climate-change-is-affecting-the-lgbtqia-community-74988

use[74], and additional sociocultural factors such as migratory/refugee status[75], homelessness[76], urbanization[77], rurality[78], and health[79], among others.

Beyond the analysis of individual-level and intrahousehold relationships, intersectionality can be used to analyze structures of power at multiple scales (global, national, and local) and institutions (communities, markets, and management regimes).[80] Identifying and comparing these dynamic processes facilitate investigation of power structures and relational experiences beyond a simple description of intersecting inequalities.[81] However, these types of '360 degree' analyses are rare, and far more common are 'snippet' approaches that look at 'singular' intersections, with the most common being the intersection of gender and age (also often framed as a "women and youth" approach).[82]

The following two case studies illustrate how the key intersections of gender and ethnicity and gender, age, and disability have been applied in practice. A third case study details a more holistic intersectional approach to analyzing gender equality, environments (natural and built) impact, and inclusion of marginalized voices.

[74] Thompson-Hall, M. (2016). Land Restoration, Agriculture, and Climate Change: Enriching Gender Programming Through Strengthening Intersectional Perspectives. In Land Restoration (pp. 421-430). Academic Press. https://www.sciencedirect.com/science/article/pii/B9780128012314000288

[75] UNHCR, CARE and ActionAid (2020). An Intersectional Analysis of Gender amongst Rohingya Refugees and Host Communities in Cox's Bazar, Bangladesh. An Inter-Agency Research Report, September 2020. https://www.careevaluations.org/wp-content/uploads/Coxs-Bazar-Gender-and-Intersectionality-Analysis-report_2020.pdf

[76] Vickery, J. (2018). Using an intersectional approach to advance understanding of homeless persons' vulnerability to disaster. *Environmental Sociology*, 4(1), 136-147. https://doi.org/10.1080/23251042.2017.1408549

[77] Schofield, D., and Gubbels, F. (2019). Informing notions of climate change adaptation: a case study of everyday gendered realities of climate change adaptation in an informal settlement in Dar es Salaam. *Environment and Urbanization*, 31(1), 93-114. https://doi.org/10.1177/0956247819830074

[78] Gonda, N. (2017). Rural Masculinities in Tension: Barriers to Climate Change Adaptation in Nicaragua. *RCC Perspectives,* (4), 69-76. Retrieved June 17, 2021, from https://www.jstor.org/stable/26241457.

[79] World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

[80] Mohanty, C. T. (2003). Feminism without borders. Duke University Press. https://www.dukeupress.edu/feminism-without-borders

[81] Choo, H.Y. and Ferree, M.M. (2010). Practicing intersectionality in sociological research: a critical analysis of inclusions, interactions, and institutions in the study of inequalities. *Sociological Theory* 28: 129–149. https://doi.org/10.1111/j.1467-9558.2010.01370.x

[82] Tavenner, K. and Crane, T.A. (2019). Beyond "women and youth": Applying intersectionality in agricultural research for development. Outlook on Agriculture 48(4): 316–325 https://doi.org/10.1177/0030727019884334

Case 3 Understanding double vulnerabilities in disaster risk reduction: Gender and ethnicity-based discrimination in Bangladesh[83]

Background: In 2019, DM Watch (formerly, Disaster Management Watch) led the project, "Research on identifying the root causes of the intersectional vulnerabilities of gender, climate vulnerability and ethnicity-based discrimination in Bangladesh", which was funded by Christian Aid, Bangladesh. The aim of the project was to gather evidence on how the intersection of gender inequalities, climate risks, and ethnicity-based discrimination produces specific vulnerabilities that leave ethnic minorities behind in the wider range of development outcomes.

Intersectional approach: Combination of quantitative and qualitative approaches were used to guide the project objectives and data analysis to illustrate the intersectional vulnerabilities of ethnic communities. A Participatory Vulnerability and Capacity Assessment (PVCA) was used to assess the demographic and socio-economic characteristics of eight communities, which included the use of participatory tools such as natural resources mapping and transect walks to observe and identify the geographical aspects of how communities interacted with natural resources (e.g., the locations of fresh water resources and sanitation facilities in relation to where homes in the community were located, and how this influenced intersectional vulnerabilities of gender, climatic risk and ethnicity-based discrimination), alongside structured questionnaires, focus group discussions, and key informant interviews. These methods combined demonstrated the intersection of gender inequalities, climate risks and ethnicity-based discrimination that create "double discriminations" for women from marginalized ethnic communities who embody the double marginalization of being a woman and being from a marginalized ethnic community. For example, gender and cultural norms in some ethnic communities do not allow women to inherit or own property, leading to higher rates of financial instability. This instability is heightened by relatively higher levels of reported wage discrimination and public sexual harassment (known locally as "eve teasing") in the form of staring, stalking, passing comments, and non-consensual physical touch among ethnic women compared to non-ethnic women in the communities studied.

The project also found ethnic women were more dependent on the environment than non-ethnic women or men, and given this dependency are more impacted/exposed to natural disasters such as river erosion, storm surges, flashfloods, drought, and salinity intrusion. For example, ethnic women who earn a living by catching fish are directly impacted by decreased numbers of fish in rivers and wetlands due to salinity intrusion, which also affects their alternate livelihood activities of shrimp and crab cultivation. Salinity intrusion further impacts ethnic women (who often live within remote communities due to long-standing processes of land dispossession, eviction, and land grabbing) as they need to travel long distances by foot each day to collect saline-free drinking water (also putting them at risk during seasonal and flash flooding). Ethnic women's health is also at greater risk than non-ethnic women or men, as ethnic women often work outside for longer periods where they can easily catch fever, respiratory illness, or skin disease which can

[83] Disaster Management Watch with contribution from Christian Aid. (2019). Identifying the root causes of the intersectional vulnerabilities of gender, climate vulnerability and ethnicity-based discrimination in Bangladesh. Internal Report November 2019, pp.139. https://dmwatch.com/project/research-on-identifying-the-root-causes-of-the-intersectional-vulnerabilities-of-gender-climate-vulnerability-and-ethnicity-based-discrimination-in-bangladesh/

weaken their immune systems. As they are often living in relatively worse-off houses made of wood or tin, ethnic women are also at greater risk of losing their homes due to floods. When this occurs, stagnant water can attract mosquitos and become polluted, causing skin irritation and infection as women have to stand in logged water for cooking and other household chores.

Sociocultural norms that view ethnic women at the bottom of the social hierarchy has led to ethnic women having lower levels of participation in public spaces, making them less likely to receive critical information for emergency preparedness than men from minority ethnic communities or women/men from majority ethnic groups. Women from minority ethnic groups, such as Dalit communities, reported having less freedom of movement than women from majority ethnic groups (e.g., Dalit women generally require men's permission to leave the house). This lack of mobility due to gender and cultural norms would limit ethnic women's opportunities to leave disaster-affected areas.

Lesson learned/outcome: Based on the understanding of intersectional vulnerabilities across gender, climate risk, and ethnicity, the project provides several recommendations for future adaptation measures and development activities carried out by the government, development partners, non-governmental organizations, and other stakeholders of development. Examples include:

- The construction of disaster shelters should be prioritized for ethnic communities who live in remote locations, and particularly for pregnant, elderly, and disabled women, who face additional mobility barriers.
- Ethnic communities who live in remote areas should be prioritized for new infrastructure, road transport systems, and introduce mobile health services and community-based medical support that rural/ethnic-minority women will be able to access.
- As ethnic women face compounding challenges in the context of climatic stress and ethnicity-based discrimination, separate statements and commitments to ensure their inclusion and targeting can be mainstreamed into relevant documents, such as National Adaptation Programmes of Action (NAPA) and Bangladesh Climate Change Strategy and Action Plan (BCCSAP).

Good practice recommendation(s): On the basis of the analyses, the study suggests interventions at the national policy and local level must consider multi-dimensional vulnerability – and especially the compounding discriminations experienced by women from ethnic minority communities which produce specific vulnerabilities, in developing disaster-risk reduction programming. Applying this type of intersectional understanding could result in the following actions for future programming:

- During the planning phase, interventions should identify and assess the potentially differential vulnerability that ethnic minorities face, particularly among ethnic women of different ages and positions within their communities as part of a comprehensive gender equality approach. To achieve this, interventions should prioritize participatory research to investigate these intersectional challenges and budget funds and time accordingly to collect gender disaggregated data along the relevant intersectional groups.

- While the incorporation of every “multi-dimension” of vulnerability in each project may not always be feasible, given their compounding discrimination the prioritization of incorporating the differing perspectives of women, men and non-binary people from ethnic minorities is at minimum needed to ensure relevant adaptation strategies are pursued.

Case 4 Understanding multidimensional vulnerability in humanitarian interventions in emergencies[84]

Background: Since August 2017, approximately 745,000 Rohingya refugees have fled violence, discrimination and persecution in Rakhine State, Myanmar for Cox's Bazar, which is now the largest refugee camp in the world. Upon arrival in Bangladesh, the Rohingya refugees are restricted in terms of access to livelihoods, income generation, freedom of movement, education, reproductive rights, which has led to harmful coping strategies and high levels of vulnerability for the refugee population. In 2020, ActionAid commissioned a research report in collaboration with the UNHCR (United Nations High Commissioner for Refugees) and CARE Bangladesh to investigate *"how age, gender, and diversity issues are addressed in the humanitarian response amongst Rohingya refugees and the host communities in Cox's Bazar, Bangladesh"* (p.1). The research sought to assess the present status of gender relations targeted in humanitarian response, *"taking into consideration the intersectionality among specific needs based on age, gender, and other diversity factors contributing to a person or group's vulnerability"* (ibid.)

Intersectional approach: The research applied a comprehensive intersectional gender analysis that included gender and power dynamics, gender and diversity, gender and disability, analysis of the child protection systems, as well as social norms, values, and practices of the Rohingya community. This intersectional framing revealed how the crisis was creating differential gendered impacts, alongside contributing intersectional factors. For example, while the crisis was differentially impacting the lives of men and women living with disabilities, women and girls with disabilities were particularly impacted due to socio-cultural and gender norms and vulnerabilities to sexual and gender-based violence (SGBV). The intersectional analysis also revealed how gender diverse populations, such as *Hijras* (inclusive of transgender and intersex people) in both communities, continued to experience social exclusion, physical, psychological, and sexual violence, and are denied access to basic rights, such as health care and employment.

Lesson learned/outcome: Findings from the research underscore the need for increased and periodic Age, Gender and Diversity (AGD) analysis and monitoring of vulnerabilities to help identify gaps in the humanitarian response of the perspectives, challenges, needs, and aspirations of specific groups of the population and to identify different vulnerabilities, coping mechanisms, needs and differential access to services by diverse groups to help customize programme and services (p.16). To this end, an overarching recommendation is that "an *up-to-date analysis of the changing dynamics of gender and intersectionality of the affected communities will help contextualizing humanitarian and development interventions to plan, implement, monitor and evaluate considering the different vulnerabilities, challenges, needs, capacities and aspirations of women, men, girls, boys, people living with disabilities and within the gender diverse populations"* (p. 15).

[84] UNHCR, CARE and ActionAid (2020). An Intersectional Analysis of Gender amongst Rohingya Refugees and Host Communities in Cox's Bazar, Bangladesh. An Inter-Agency Research Report, September 2020. https://www.careevaluations.org/wp-content/uploads/Coxs-Bazar-Abridged-vesrion_Gender-and-Intersectionality-Report-2020.pdf

Another lesson learned was regarding the importance of inclusive and representative participation among different intersectional groups across the project/programme cycle. "*Participation of representative groups of women, girls, men, boys, people living with disabilities and gender diverse populations, Hijras, in the planning, designing, monitoring and evaluation of all aspects of humanitarian and development programmes, including committees of the camp governance structures"* (p.16). The authors note that this is even more imperative in the context of the COVID-19 pandemic, where existing inequalities and vulnerabilities are at risk of intensifying further.

Good practice recommendation(s): The case study points towards how an intersectional framework could be put in place to periodically assess who are the most vulnerable, what are their vulnerabilities, what are the differing needs, what are the challenges, and when and how tailored assistance could be made available in humanitarian interventions in emergencies. Since intersections are not static, but fluid and shifting, especially given changing and dynamic contexts, it is not enough to have an intersectional framework applied once or initially. Rather, intersectional assessments need to be iterative and periodically repeated, with updated findings.

Additionally, knowledge management in the form of dissemination of research findings should be integrated as a core strategy into relevant sectoral policies and programmes to protect the diverse needs and rights of women, girls, men, boys, and people with diverse gender identities in refugee and host communities for achieving their multidimensional capability outcomes and broader well-being.

Lastly, this case study highlights the importance of adopting a rights-based approach, so that specific needs and priorities of women, men, girls, boys, people living with disabilities and *Hijras* and other non-binary people are considered in planning processes and allocation of resources (p.16).

Case 5 Inclusive System Evaluation for Gender, Environments, and Marginalized Voices (ISE4GEMs) [85]

Background: A recent methodological innovation towards more holistic intersectional analyses is the Inclusive Systemic Evaluation for Gender, Environments and Marginalized Voices (ISE4GEMs). Commissioned by UN Women in 2018, ISE4GEMs is an evaluation methodology created in response to the need to generate advanced approaches and methodologies to evaluate gender equality and women's empowerment in the context of the United Nations 2030 Sustainable Development Goals (SDGs). The ISE4GEMs combines the three dimensions of gender equality, environments, and marginalized voices (GEMs) in a considered way to deepen evaluation professionals' and stakeholders' understanding of complexity in theory and practice, prioritizing the interconnections between GEMs.

By integrating the three dimensions of gender, environments, and marginalized voices (GEMs), ISE4GEMS enables inclusive, systemic evaluation of adaptation-relevant interventions. 'Systemic evaluation is designed to assess the interconnectedness between elements operating within social structures. Systemic evaluation asks questions to capture the conditions and changes relevant to an intervention, the changes it produces and opportunities for learning and empowerment. In the course of an evaluation, one may uncover what else was going on—the external effects, spillover of other efforts or policies, uncontrolled events (such as political conflict or environmental disasters), or unexpected facilitators or inhibitors of change that may or may not have been part of the original plan' (ibid, p.12).

The aim of the ISE4GEMS methodology is to understand the inter-connectedness of the opportunities, constraints, and relationships between these dimensions by identifying and gaining insights from the perspective of all people and environments relevant to the intervention. It also provides specific activities towards empowering stakeholders by developing their capacity during the evaluation process. The published guidebook to the methodology is an introductory text for practitioners to understand the approach and key concepts. It also includes guidance and tools for real-world applications.

Intersectional approach: The ISE4GEMs framework takes an inherently intersectional approach by seeing gender, environments, and marginalized voices as inseparable axes of analysis. For instance, in investigating differential vulnerabilities, resilience and impacts of climate change, the gender and environments dimensions could be interconnected in that the health of one's habitat and environment, and the safety, health and security of women are often aligned. At the same time, the methodology is flexible enough to account for intersections in different contexts, times, and spaces, and the relative importance of each intersection in different situations. ISE4GEMS relies on participatory engagement with

[85] UN Women. (2018). Inclusive Systemic Evaluation for Gender equality, Environments and Marginalized voices (ISE4GEMs): A new approach for the SDG era, 144 pp.https://www.unwomen.org/en/digital-library/publications/2018/9/ise4gems-a-new-approach-for-the-sdg-era#view

quantitative, qualitative, and mixed-methods analysis towards the overarching goal of gender-responsive evaluation that leads to empowerment and transformational change.

Lesson learned/outcome: "*Applying the ISE4GEMs approach in an evaluation of women's political participation, the authors were able to identify interesting linkages and inter-relationships between environments and the other GEMs dimensions. For example, in one country, women participating in an agricultural initiative exercised their political participation when they engaged local authorities on climate change issues that were negatively affecting them. In another country, women were supported to increase their participation in disaster risk management groups, an area where women's participation in decision-making is limited but of increasing importance. In a third country, supporting women to engage and participate in climate change legislation at the local level was identified as an area that required attention. In a fourth country, the enhanced environmental issues that indigenous groups may face was highlighted. An overall finding of the evaluation was that more learning and capacity is needed to understand and address the intersectionality between gender and environments.*

The simple process of asking informants if they saw a connection between the GEMs dimensions in the context of women's political participation led to reflection and more explicit awareness of a connection, even if what that connection was or meant for their work was not yet clear" (p.33).

In another example, *"when evaluators were investigating the working conditions and experiences of women in domestic service in Asia, they found that the intervention was designed and led by the women who were the primary beneficiaries. However, this situation had to be fought for by the program designer who was working with certain stakeholder groups who saw themselves as the most appropriate spokespersons for the women (e.g., employment agents). Working with care, the program manager persuaded these stakeholders of the importance of hearing the voices of the beneficiaries and the possible gains to be made by positioning them as leaders. Once convinced, these gatekeepers became very supportive and became advocates of the process in other intervention sites"* (p.34).

Good practice recommendation(s): The GEMs Data Analysis (Tool 9, p.130) presents several evaluation questions that can be taken forward into adaptation-relevant interventions seeking to capture the voices of men and women from marginalized/vulnerable communities:

- Were intersectional differences (e.g., according to sex, sexuality, age, income, ethnicity, ability, status or religion) accounted for?
- What evidence is there of engagement with marginalized voices (e.g., according to sex, sexuality, age, income, ethnicity, ability, status or religion)?
- What structural barriers or enablers (social, political) limited or promoted the intervention's capacity to support marginalized voices?
- What interpersonal relationships effected the intervention's capacity to support marginalized voices?

3.3. Sector-specific approaches and relevant case studies

This section highlights the different intersectional approaches used in various adaptation-relevant sectors. The sectors that were most commonly represented in the academic/gray literature were agriculture and food security, disaster risk reduction, forests and forest management, water management, and health. Each of these sectors are discussed in turn, drawing on relevant case studies to illustrate how intersectional approaches have been applied in each sector.

Agriculture and Food Security

With increased instances of droughts and extreme rainfall events, and more variability in temperature and rainfall patterns, climate change is threatening agricultural production and food security around the world.[86] In global policy circles, National Adaptation Programmes of Action (NAPAs)[87] and National Adaptation Plans (NAPs)[88] commonly cite food security (alongside water needs) in the context of agriculture as areas requiring intervention. The gendered contribution of women to the food and nutritional security for their households and communities through subsistence farming activities has been documented as globally disproportional compared to the contributions of girls, men, and boys.[89]

Given that agricultural practices are often rooted in cultural gender roles and responsibilities that determine how rural and urban women and men of different ages are able to engage in crop and livestock production, the gendered division of labor, differences in needs, knowledge and priorities between and among these groups have been documented since the 1970s.[90] Globally, and across the intersections of geographic location and different socio-cultural contexts, unequitable gender norms and discrimination of women and girls have led to their work being devalued and marginalized, both in production and post-harvest activities. Gender roles and gender-based discrimination have given rise to global gender gaps in labor (including time use), access to and control over productive resources, information (including access to services), decision-making (household and public sphere), participation, and benefit sharing[91], though these gender gaps have been predominately framed through a binary gender lens (e.g., women v. men). Indeed, while the need for developing holistic intersectional approaches to gender mainstreaming in agriculture has been covered in multiple publications[92], the majority of applied studies have tended to focus exclusively on the intersection of gender and age.

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[86] https://www.adaptation-fund.org/projects-programmes/project-sectors/agriculture/

[87] UNFCCC (2021). National Adaptation Programmes of Action. https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/introduction

[88] World Resources Institute. (2014). Clarifying the UNFCCC NAP Process. https://www.wri.org/insights/clarifying-unfccc-national-adaptation-plan-process

[89] The World Bank, Food and Agricultural Organization, and International Fund for Agricultural Development. (2009). Gender in Agriculture Sourcebook. Washington DC: The World Bank, ISBN 978-0-8213-7587-7.

[90] Burg, M. van der. (2019). 'Change in the Making': 1970s and 1980s building stones to Gender Integration in CGIAR Agricultural Research, in: Gender, Agriculture and Agrarian Transformations, Carolyn Sachs (ed.), Routledge, 35-57.

[91] Nelson, S. & Hill, C, 2019. Gender in adaptation planning for the agriculture sectors: Guide for trainers. Rome. *http://www.fao.org/3/ca7088en/ca7088en.pdf*

[92] Ravera, F., Martín-López, B., Pascual, U., & Drucker, A. (2016). The diversity of gendered adaptation strategies to climate change of Indian farmers: A feminist intersectional approach. *Ambio*, *45*(3), 335-351. https://link.springer.com/article/10.1007/s13280-016-0833-2; Thompson-Hall, M., Carr, E. R. & Pascual, U. (2016). Enhancing and expanding intersectional research for climate change adaptation in agrarian settings. *Ambio*, 45(Suppl 3): 373–382. 10.1007/s13280-016-0827-0 ; Thompson-Hall, M. (2016). Land Restoration, Agriculture, and Climate Change: Enriching Gender

Investigating these intersections of gender and generation in agrarian settings have contributed holistic understandings on the vulnerabilities, needs, and adaptive capacity to climate change for different groups, yielding key insights that would not be captured using a conventional binary approach (e.g., men v. women). A recent review of the literature[93] on this topic illustrated how roles and responsibilities that influence a person's ability to deal with climate stressors emerge at the intersections of diverse identity categories, and that using a binary approach would otherwise obscure knowledge central to improving adaptation programming, project design, implementation, and outcomes (ibid, p.373). For example, the review cites a case from Mali[94], where a conventional binary gender analysis would highlight how men farmers' role in rain-fed agriculture would make them more vulnerable to fluctuations in precipitation than women farmers, whose primary focus is on hand-irrigated gardens (ibid, p.376). However, if the intersection of gender and generation would be considered, a different picture of vulnerability would be revealed – this analysis would show that younger men are more reliant on sales of surplus rain-fed crops than are elder men, therefore making younger men more vulnerable to changes in rainfall. Intersectional analysis among women of different ages would reveal that while women of all ages engage in hand-irrigated gardening, elder women are more dependent that younger women on added market sales of rain-fed peanuts to boost earnings from their home gardens. This case illustrates that younger men and elder women may be more vulnerable to variable rainfall than younger women and elder men - insights that were only gained by going beyond conventional binary analysis.

Several recent studies have gone a step further by using intersectional analysis to investigate marital status[95], gender, age, and ethnicity[96], and intra-household position in adaptation-relevant interventions.[97] For example, a recent study in the Tanzanian dairy sector[98] examined how gender, age, and marital status create power relationships that influence farmers' positioning to engage in dairy production, institutions, and processes. The study found that while dairy cooperatives were targeting "women and youth" to engage in dairy, using these broad categories erased the intra-gender differences between these social groups. For example, the target group of "women" was extremely diverse, including women that were in polygamous marriages, widows, single, and divorced women. Due to local cultural gender norms, these

Programming Through Strengthening Intersectional Perspectives. In Land Restoration (pp. 421-430). Academic Press. https://www.sciencedirect.com/science/article/pii/B9780128012314000288; Conti, V. (2017). *Gendered Crops from an Intersectional Perspective: Which Factors Influence Women's Dry-Season Farming Choices?* (Master's thesis). https://dspace.library.uu.nl/handle/1874/352955

[93] Thompson-Hall, M., Carr, E. R. & Pascual, U. (2016). Enhancing and expanding intersectional research for climate change adaptation in agrarian settings. Ambio, 45(Suppl 3): 373–382. 10.1007/s13280-016-0827-0

[94] Carr, E. R., and M. C. Thompson. (2013). Gender and climate change adaptation in agrarian settings. Report prepared for the United States Agency for International Development. pp. 76.

[95] Badstue L, Petesch P, Farnworth CR, Roeven L, and Hailemariam M. (2020). Women Farmers and Agricultural Innovation: Marital Status and Normative Expectations in Rural Ethiopia. *Sustainability*, 12(23):9847. https://doi.org/10.3390/su12239847

[96] Mungai C., Opondo M., Outa G., Nelson V., Nyasimi M., Kimeli P. (2017). Uptake of Climate-Smart Agriculture through a Gendered Intersectionality Lens: Experiences from Western Kenya, Climate Change Management 587-601. https://link.springer.com/chapter/10.1007/978-3-319-49520-0_36

[97] Ayesha Qaisrani and Samavia Batool. (2021). 'Vulnerabilities of rural women to climate extremes A case of semi-arid districts in Pakistan' pp.19-37, in *Engendering Climate Change: Lessons from South Asia.* New York: Routledge.

[98] Tavenner, K. and Crane, T.A. (2019). Beyond "women and youth": Applying intersectionality in agricultural research for development. Outlook on Agriculture 48(4): 316–325 https://doi.org/10.1177/0030727019884334

“sub-groups” of women had different access to capital, land, cows, and other resources necessary to engage in dairy production than did women who were in monogamous relationships/marriages.

Furthermore, programmes that used blanket approaches to “youth” failed to see the differences young women and young men had in aspiring to engage in dairy production, with many campaigns only targeting young men due to discriminatory norms and assumptions that young women would not want to participate. Ultimately, by taking a broader intersectional approach that sees gender power relations as mediating agricultural engagement among different social groups, programmes will be able to create more tailored interventions that respond to the diverse needs of all stakeholders and/or target beneficiaries and contributes to equitable sharing of the benefits of the interventions. This aspect is particularly important in considering the multi-dimensional vulnerabilities that farmers often face, as described in Case study 6.

Case 6 Understanding women farmers' vulnerabilities to climate change through an intersectional lens

Background: Pathways to Resilience in Semi-Arid Economies (PRISE)[99] was a five-year, multi-country research program that aimed to create new knowledge about climate-resilient and equitable economic development in semi-arid regions of Asia and Africa. Intersectional gender analysis using data from two PRISE projects in Pakistan was published in the volume *Engendering Climate Change: Lessons from South Asia*.[100] The aim of the study was to illustrate the various pathways that shape rural women's vulnerability and adaptive capacities in the cotton value chain in the semi-arid regions of Dera Ghazi Khan, Faisalabad and Mardan districts.

Intersectional approach: The study used an intersectional sampling framework embedded in a mixed-methods approach, relying on both quantitative household-level survey data and qualitative gender-disaggregated focus group discussions with women and men of different economic backgrounds and ages, all working in the cotton industry. Topics of discussion within the focus groups were around the gendered impacts of climate change, gender roles and responsibilities in post-disaster scenarios, and perceptions about gender differences in climate vulnerability. Analysis of how socio-economic class, age, and intra-household position/generational status interact with each other to increase or decrease women's vulnerabilities and adaptive capacities revealed that how women are affected by extreme climate events depends on these intersections of identity, which shapes their involvement in agriculture and natural resource management. For example, socio-economic class shaped the extent to which women were engaged in agricultural production as cotton pickers, with women from poorer/landless households typically more involved in agricultural activities than women from wealthier/landed households. Women from slightly higher socio-economic classes were expected to (and preferred to) engage in home-based work, like making handicraft items, over agricultural labor, despite the extremely low returns, as it allows them to earn a living while staying at home. This expectation was enforced by socio-cultural and religious norms that restrict women's mobility due to notions of family 'honor' or 'prestige'. Poorer/landless women's direct involvement in and dependence on agriculture makes their livelihoods more vulnerable to income shocks if agricultural productivity is affected by climate extremes.

This dependency on agriculture also makes poorer women more susceptible to health complications from agricultural labor – for example, sunburn and heatstroke were common health conditions among poorer women agriculturalists in summer conditions, where field temperatures are as high as 49-degrees Celsius. These health risks were also more acute based on age, with young girls and elderly women being most impacted. Additionally, given that higher temperatures and lack of rainfall increase the risk of pest attacks on crops leading to higher pesticide use, cotton pickers risk developing skin allergies or other illnesses from pesticide residues on cotton balls. These risks are particularly high for pregnant cotton pickers as

[99] https://odi.org/en/about/our-work/pathways-to-resilience-in-semi-arid-economies-prise/#:~:text=%E2%80%8BPathways%20to%20Resilience%20in,and%20resilient%20to%20climate%20change

[100] Ayesha Qaisrani and Samavia Batool. (2021). 'Vulnerabilities of rural women to climate extremes A case of semi-arid districts in Pakistan' pp.19-37, in *Engendering Climate Change: Lessons from South Asia.* New York: Routledge.

well as young girls, who are still developing. More generally, young girls from poorer families are more likely to be taken out of school if the household income falls due to a climate shock than boys from poorer families, or girls and boys from relatively wealthier families.

Socio-economic class also interacted with geographic location to influence women's ability to migrate and work outside of agriculture to diversify income. For example, in Faisalabad, where urbanization is happening more quickly than in Mardan, poorer women were able to work in non-agricultural jobs, commonly as domestic workers, which safeguarded them from experiencing the direct impacts of climate change as agriculturalists and lessened their vulnerability.

Intra-generational dynamics at the household level, including age and positioning within the family, impact women's agricultural decision-making abilities/authorities, and shape vulnerability to climate change. Older women in the family tended to have higher decision-making powers and were consulted by men in the majority of household matters, including household resource management and migration decisions. For example, a mother-in-law was involved in decisions regarding where her son should move to, but a new bride was not involved in the discussion. Men's out-migration influenced the balance of power in households, with older women enjoying relatively more authority in household affairs, but with young women, especially newly married ones, facing further restrictions in their husband's absence. However, this was a dynamic that was shown to change over time, with one interviewee describing that *"she used to face mobility restrictions imposed by her mother-in-law, who did not allow her to go out of the house alone, even to run errands, but as her children are grown up now, these restrictions have eased"* (p.30).

Lesson learned/outcome: The analysis highlighted that not all women in a specific region are impacted uniformly – gender differentiation in experiences and responses to extreme climate events are not only class- or age-based, but also depend on women's intra-household position and geographic location. Within the study, these intersections of identity determine expectations for whether/how women are engaging in agricultural production, whether they can migrate/be mobile, and the extent to which they can hold authority in making decisions. These intersections of identity represent substantial "intra-group" differences in levels of vulnerability and adaptive capacities (e.g., differences between "rural/less rural", "older/younger", "wealthier/poorer", "mother-in-law"/ "daughter-in-law)." While all of these multiple intersections are important, it's important to note that they are not necessarily balanced (e.g., each intersection does not influence ¼ of a woman's vulnerability). For example, socio-economic class positioning and geographic location in this case appear to be more salient determinants of whether a woman engages in agriculture as a cotton picker than her age or intra-household position. Thus, a key takeaway from this case study is that the importance of each of these intersectional factors is contextual and varies.

Good practice recommendation(s): Building climate resilience for sub-groups of women, men, and non-binary people requires their differentiated needs to be integrated into all other national and local policies and actions that shape and construct discriminatory gender roles in society and within households. Such an approach would show that increased vulnerability is not an inherent characteristic of women as a

homogenous group vis-à-vis men as a homogenous group; rather it is generated by the existing and often differing degree of discrimination that different sub-groups of women experience (with some women experiencing double or triple discriminations based on several factors). The study highlights that applying an intersectional lens to existing gender mainstreaming would help towards creating policies and strategies for enhancing the resilience of all vulnerable women in rural semi-arid regions.

Forests and Forest Management

Forests influence carbon dioxide patterns within the atmosphere by absorbing carbon through wood, leaves and soil and by doing so act as a stabilizing force to help regulate the climate. In addition, forests are a source of culture, traditional knowledge, food, and livelihoods for many forest-dependent communities. They provide invaluable ecosystem services by helping to improve and maintain soil quality, aquifers and regulate surface temperature. Fighting forest degradation, creating resilient agroforestry practices, and integrating adaptive measures within communities to safeguard, conserve or restore their forests and rich biodiversity are key strategies towards adaptation in the forests and forest management sector.[101] Ecosystem-based approaches (related to ecosystem services) and the preservation of forest biodiversity and the use of non-timber products and traditional knowledge also have important implications towards adaptation-related interventions.

While forests are a direct source of food, cash income, and a range of subsistence benefits for millions of people worldwide, there are major differences in the benefits that accrue to men and women.[102] Intersectional approaches to forest management recognize that for a variety of interrelated cultural, socio-economic, and institutional reasons, indigenous, rural, and resource-poor women are often disadvantaged in terms of access to and control over forest resources and in the availability of economic opportunities.[103] For example, rural, resource-poor, and indigenous women, tend to be the primary collectors of forest foods to supplement the nutrition of their households,[104] but are often marginalized in forest governance positions (e.g., as forest rangers) and in management decisions (e.g., resource harvesting).[105] Given rising climatic changes and their impacts on forests globally, these intersectional inequalities have implications for household nutrition and resilience to climate shocks that would directly but differentially impact different sub-groups of women and other often marginalized groups.[106]

Intersectional approaches to forests have also highlighted the gender-differentiated knowledge of forest flora and fauna (e.g., species diversity, location, harvesting and hunting patterns, seasonal availability, uses for various purposes, and conservation practices) that exists between both "inter-categorical" gender intersections (e.g., differences between women and men, girls and boys, and non-binary people) and "intra-categorical" gender intersections (e.g., indigenous women and non-indigenous women, younger and elder indigenous women). For example, as indigenous elder women are often the guardians of traditional knowledge and culture regarding forest flora and fauna, intra-categorical approaches have

[101] https://www.adaptation-fund.org/projects-programmes/project-sectors/forests/
[102] Guarascio, F., Gunewardena, N., Holding-Anyonge, C., Kaaria, S., Stloukal, L., Sijapati Basnett, B., Colfer, C.J.P., Mwangi, E., Powell, B., Shackleton, S. and Degrande, A. (2013). Forest, food security and gender: linkages, disparities and priorities for action. http://www.fao.org/3/mg488e/mg488e.pdf
[103] Colfer C, Sijapati Basnett B, and Ihalainen, M. (2018). Making Sense of 'Intersectionality': A Manual for Lovers of People and Forests. Bogor: Center for International Forestry Research (CIFOR). https://www.cifor.org/knowledge/publication/6793/
[104] Pehou, C.; Djoudi, H.; Vinceti, B.; Elias, M. (2020). Intersecting and dynamic gender rights to néré, a food tree species in Burkina Faso. Journal of Rural Studies Online first paper (13 March 2020) 10 p. ISSN: 0743-0167
[105] Agarwal, B. (2001). Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. World development, 29(10), 1623-1648.
[106] Clement et al., (2019). 'From women's empowerment to food security: Revisiting global discourses through a cross-country analysis', Global Food Security, vol. 23, pp.160-172, Elsevier.
https://www.sciencedirect.com/science/article/pii/S2211912417301086

illuminated how traditional knowledge is transferred among indigenous women at different phases of the life cycle, (e.g., how young/adolescent girls are taught how to identify and harvest forest resources by elder women) and how these patterns of knowledge transfer have implications for inclusive forest governance under a changing climate.[107]

Many development organizations and institutions[108], including from the non-profit/CSO sector and indigenous groups[109] themselves have engaged in projects/programmes that explore how forests are managed, used and cared for using an intersectional gender lens, and championed the need to include the intersectional perspectives of forest users themselves in the development of adaptation-relevant projects/programmes. A recent example of the advancement of this agenda is the Center for International Forestry Research (CIFOR), which has led gender and adaptation work in the forests and forest management sector using a spectrum of approaches that have examined the intersection of 'gender and generation'[110], gender, ethnicity, and residency status[111], and gender and indigenous knowledge[112]. For example, in 2018, CIFOR published a manual for practitioners that acknowledged the complexity of structural and institutional relations beyond the level of the individual.[113] Case study 7 provides a case study example of an intersectional approach to gender mainstreaming applied to the forests and forest management sector.

[107] Tavenner, K. (2016). A feminist political ecology of indigenous vegetables in a South African protected area community. PhD dissertation, Department of Rural Sociology and Women's Studies. University Park, PA: The Pennsylvania State University.
[108] For example, see USAID publication: Vinyeta, Kirsten, Powys Whyte, Kyle and Lynn, Kathy. (2015). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States. Gen. Tech. Rep. PNW-GTR-923. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 72 p. https://www.fs.fed.us/pnw/pubs/pnw_gtr923.pdf
[109] For example, see WECAN (Women's Earth and Climate Action Network) International 'Women for Forests' program. https://www.wecaninternational.org/women-for-forests and WECF (Women Engage for a Common Future) https://www.wecf.org/inclusive-forest-governance/
[110] Clendenning J., Elias M., Sijapati Basnett B. (2019). 'At the intersection of gender and generation: Engaging with 'youth' in the CGIAR Research Program on Forests, Trees and Agroforestry', FTA Brief no. 3, Center for International Forestry Research (CIFOR), https://gender.cgiar.org/publications-data/intersection-gender-and-generation-engaging-youth-cgiar-research-program-forests
[111] Pehou, C., Djoudi, H., Vinceti, B. and Elias, M. (2020). Intersecting and dynamic gender rights to néré, a food tree species in Burkina Faso. *Journal of Rural Studies* Online first paper (13 March 2020) https://doi.org/10.1016/j.jrurstud.2020.02.011
[112] Elias, M., Hummel, S. S., Basnett, B. S., & Colfer, C. J. (2017). Gender Bias Affects Forests Worldwide. *Ethnobiology Letters*, *8*(1), 31–34. https://doi.org/10.14237/ebl.8.1.2017.834
[113] Colfer C., Sijapati Basnett B., and Ihalainen, M. (2018). Making Sense of 'Intersectionality': A Manual for Lovers of People and Forests. Bogor: Center for International Forestry Research (CIFOR). https://www.cifor.org/knowledge/publication/6793/

Case 7 Reframing 'women's participation' in joint forest management to capture intersecting social differences[114]

Background: The CGIAR (formerly the Consultative Group for International Agricultural Research) Research Program on Forests, Trees and Agroforestry (FTA) aims to "enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change."[115] In 2017, in partnership with USAID (United States Agency for International Development) and the Innovations in Ecosystem Management and Conservation (IEMaC) project, the FTA led a study on gender equity and social inclusion in joint forest management (JFM) in the Indian states of Uttara Kannada District, Karnataka and Mandla District, Madhya Pradesh.

JFM is a strategy towards engaging forest dependent communities in the management of their forest lands. Under this strategy, India's Forest Department (FD) and forest dependent communities formally share responsibilities and benefits of jointly protecting and managing forests adjoining villages. JFM agreements are carried out in practice through JFM committees (JFMCs) – referred to as Village Forest Communities (VCFs) - where elected community representatives, together with FD officials, make collaborative decisions on forest management. Although women and marginalized groups (such as Scheduled Castes (SCs) and Schedule Tribes (STs)) have reserved seats on JFMCs, these groups often face significant barriers to active engagement in JFM processes. This project sought to investigate the root causes of these barriers and assess whether gender equity and social inclusion could be improved in JFM through interviews with different forest users.

Intersectional approach: The study took an explicitly intersectional approach to evaluate the effects of gender, social class, and ethnicity on participation in JFM. These intersections were chosen based on documented differences between ethnic groups and *castes* (hereditary social groups or classes in Hindu culture) in forest dependency, landholdings, education levels, socio-economic status, and political opportunities, within the wider country-wide context of gender inequalities. The study compared JFM participation between the Havik Brahmin Hindu community (highest social class in the ritual hierarchy) and lower ranking castes and ST communities – known as *Adivasis* or 'original inhabitants.'

To better understand the different exclusions between these groups in JFM, the study used an intersectional approach to sampling interviewees, ensuring that equal numbers of male and female participants included forest users from different ethnic, socio-economic and age groups. The rationale behind this sampling strategy was to ensure the different perspectives of relatively privileged and less privileged communities would be captured to better understand the factors shaping gender and social exclusions in JFM.

[114]Elias, M. (2017). Gender and social inclusion in Joint Forest Management: Lessons from two Indian states. Policy brief. Bioversity International: Rome, 6p. Link to brief available here: https://gender.cgiar.org/publications-data/gender-equity-and-social-inclusion-joint-forest-management-lessons-two-indian

[115] https://www.cgiar.org/research/program-platform/forests-trees-and-agroforestry/

Lesson learned/outcome: Among those interviewed for the study, the majority of participants believed there were significant barriers to women's participation that overlapped with ethnic exclusions in JFM. For example, the majority of women that occupied seats on the JFM forest council were from the Havik Brahmin community, while women from the marginalized forest-dependent Schedule Tribe (ST) communities were largely excluded, and doubly discriminated against based on their gender and ethnicity.

The results of the study highlight that gender, social class and ethnicity do not operate independently of each other to influence participation in JFM. Rather, participation is shaped at the intersection of gender, social class, and ethnicity, such that women and men from different groups have different experiences with JFM. Participation in JFM also varies according to other facets of women's identity, such as age and stage in the life cycle (e.g., number of young dependents versus adult children), education, and socio-economic status, all of which condition workloads and livelihood strategies.

Enhancing the equity of JFM will require multi-pronged efforts and measures. The study recommends increasing the number of JFM representation from women who are from marginalized groups to help reduce discrimination and conflicts and create common ground for collaboration. While having reserved seats for women and marginalized communities is a pre-requisite to equality in participation, JFM projects should aim to create enabling environments for participation by working with both marginalized and more privileged groups to foster dialogue, cooperation and sharing of resources among actors. *"This implies working with both women and men from different ethnic groups to create normative change through dialogue and awareness raising activities. Engaging with present and future FD officials (i.e., in training) to dismantle their prejudices can help redress the skewed and conflictual relations they often have with local people"* (p.6). As a targeting strategy, JFM committees should sub-divide the number of seats that are reserved for women to ensure that those from lower socio-economic status are equally represented. To ensure that the voices of less privileged women are heard, JFM committees should create "enabling spaces" where each member is given space to voice their opinions. This can be facilitated by JFM leaders (e.g., chairperson/president) to 'set the tone' for more equitable participation and ensure measures are in place where everyone's suggestions and ideas are valued. Alongside this, JFM committees can support champions, role models and community resource persons to inspire women and marginalized groups to *"envision themselves another way: gaining confidence that it is possible for them to adopt certain behaviors because others like them have already done so"* (ibid).

Good practice recommendation(s): The forest dependency, responsibilities, and livelihood activities of different groups of women differ, as do their interests and ability to participate in JFM. These findings underscore the need to reframe the issue of 'women's participation' to capture intersecting social differences among different groups of women.

As the example in the case study of the JFM highlights, it is not enough to simply reserve a certain number of seats for women or marginalized groups. Thought must be given to which groups of women and which groups of men (based on their ethnicity, social status/economic class, and age) might be excluded based on these intersecting identities, and whose voices need to be empowered through targeted actions to have them represented based on their role in project-relevant activities. For example, if a project

identifies a specific group of women, such as women from indigenous and/or natural resource-dependent communities, are primarily responsible for safeguarding natural resources, then the project must address the particular barriers that specifically hinder them from fully participating and benefiting from relevant interventions. Furthermore, in ensuring full and equitable benefit and participation, adaptation-relevant interventions should explore differentiated interests and incentives for women of different groups based on their ethnicity, socio-economic status, and age. Better understanding these interests and incentives will ensure that interventions are responsive to the needs of different intersectional groups and avoid pushing interventions that do not align with the aspirations and needs of these groups in resource-dependent communities.

Disaster Risk Reduction

Climate change is projected to increase the occurrences and intensities of natural hazards. Disaster Risk Reduction (DRR) is a means of adapting to this reality that relies on preventive measures as the most effective means of ensuring these hazards do not evolve into full-fledged disasters. It requires input from every part of society, and includes a wide range of adaptation activities, such as risk and vulnerability assessments and strengthening climate information and early warning systems.[116]

The need for practical ways to advance gender equality and social inclusion in climate and disaster resilience is well documented.[117] Gender mainstreaming applied to DRR acknowledges that men and women are impacted by disasters in different ways and often have distinct coping and adaptation strategies. This generally includes gender analysis of how gender norms, roles and inequalities shape vulnerability and resilience for both women and men. A recent practical guide by the Food and Agriculture Organization of the United Nations (FAO) stressed the need to use a human rights perspective to*: "address the differential needs and priorities of men and women, boys and girls in developing DRR policies, plans and programs"* to ensure that the needs of these diverse groups are met.[118]

Beyond the need to examine how gender and age intersect to create different vulnerabilities and correspondingly require differentiated resilience strategies, recently the case for acknowledging the multiple factors that intersect to create women's diverse experiences in post disaster contexts has been strengthened by studies on women's vulnerability and resilience at the intersections of caste and class[119] and in how relations of gender, class, and religion influence women's experiences of unemployment in response to the COVID-19 pandemic.[120]

[116] https://www.adaptation-fund.org/projects-programmes/project-sectors/disaster-risk-reduction/

[117] https://blogs.worldbank.org/endpovertyinsouthasia/practical-ways-advance-social-inclusion-climate-and-disaster-resilience-south

[118] FAO. (2016). A gender-responsive approach to disaster risk reduction (DRR) planning in the agriculture sector: Guidance for supporting rural women and men to build resilience in the face of disasters. Rome. http://www.fao.org/resilience/resources/resources-detail/en/c/1114431/

[119] Arora, S. (2020). Intersectional vulnerability in post disaster contexts: lived experiences of Dalit women after the Nepal earthquake, 2015. *Disasters*, https://doi.org/10.1111/disa.12471

[120] Nimble, N. (2021). Disaster and Intersectional Vulnerabilities: Loss of Livelihoods among Female Domestic Workers during Covid-19 and its Communalisation. *Journal of Comparative Literature and Aesthetics*, *44*, 11-22. http://jcla.in/wp-content/uploads/2021/01/JCLA-44.1-Spring-2021_Neha-Nimble.pdf

Case 8 Intersectional approaches to gender mainstreaming in vulnerability reduction and resilience building[121]

Background: From the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) program of the Overseas Development Institute (ODI), this case study provides insights from the report *Building resilience for all: intersectional approaches for reducing vulnerability to natural hazards in Nepal and Kenya*. While this case presents findings from the Kenya study, a companion case study depicting analysis from Nepal is also available. This case study explores intersecting inequalities in Kenya and illustrates how intersectional approaches can identify the opportunities and challenges towards strengthening resilience to natural hazards and disasters to women and men of differing ethnicities, literacy levels, ages, disabilities, and social ties.

The rationale for the BRACED program is encapsulated in the reality that men's and women's experience of climate variability and natural hazards are contingent on the social, economic, cultural, political, and environmental contexts in which they live. Given that, *"marginalized and disadvantaged groups tend to be particularly vulnerable to natural hazards, and often live in areas that are more exposed to environmental shocks and stresses, there is a need to understand how different factors intersect to create exclusion, inequalities, and vulnerabilities in multi-hazard contexts, to ensure that policies and programs that aim to build resilience respond to the local context and support those most in need"* (ibid, p.1).

Intersectional approach: The case study used an intersectional approach by examining the experiences of women and men with differing levels of political representation from 'majority' and 'minority' ethnic groups in Wajir county, Kenya. Using a quantitative survey, analysis of differences was conducted across four distinct groups: women with political representation, men with political representation, women without political participation, and men without political representation. Wajir's climate is typified by long droughts, erratic rainfall, heat stress, seasonal shifts, and occasional flooding. The different ethnicities of a number of communities were recognized as an intersectional factor given the differential status in terms of development and resource allocation from the government and other development actors. A household survey, interviews with key stakeholders (policymakers, practitioners, and local leaders), and focus group discussions at the local level were used to understand the resilience of men's and women's from different ethnic communities to natural hazards and climate change. Results from the study were analyzed through the lens of economic, social, infrastructural, and institutional resilience.

Lesson learned/outcome: Findings from the study revealed gender inequalities and intersecting, and often aggravating social inequalities (along the axes of age, relative political power, ethnic community, and literacy levels) were major constraints facing all women in the study area to varying extent. For example, women from minority ethnic communities had less access to and control over natural resources and less opportunity to earn an income than women or men from majority communities, and men within

[121] Lovell, E., Twigg, J., and Lung'ahi, G. (2019). *Building resilience for all: intersectional approaches for reducing vulnerability to natural hazards in Nepal and Kenya*. London: ODI. Link to full report: https://cdn.odi.org/media/documents/12697.pdf

their communities. Ethnic minority women also had the least access to education or training and less participation in decision-making processes compared to women from ethnic majority groups and men from both majority and minority groups. Moreover, they do not enjoy equal rights to inheritance of assets and their domestic burdens restrict development of other livelihood opportunities compared to women from ethnic majority groups and men from both majority and minority groups. All of these factors combine and compound to create situations where women from minority ethnic groups (who also tended to have less political power and were less educated) lack economic power, and control over assets and voice in household decision-making and are more vulnerable to natural hazards, disasters, and climate change.

From Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) there was some acknowledgement that levels of women's empowerment varied between different social groups. For instance, women from groups with political representation were seen to have higher self-esteem and confidence and to be able to express themselves better than women without political representation, which may be due to improved access to education and employment opportunities. For the most part, KII and FGD participants highlighted social tensions between different ethnic groups and power relations in society linked to political representation and access to resources (ibid, p.68).

Given the inequalities that currently exist, targeting actions across Wajir for disaster risk reduction will require special consideration of politically and socially marginalized and excluded people, especially women from minority ethnic communities. For example, outreach efforts for climate information and early warning systems will need to consider minority women's current generalized conditions (e.g., being less likely to be literate, visual and audio information tools would be more appropriate in conveying relevant climate information). This type of targeting will require local governments and institutions to invest in capacity-building to ensure the intersectional perspectives and resultant needs of local people are incorporated into disaster risk management policy and programming. Furthermore, strategies aimed at strengthening understanding of projected changes in climatic conditions, integrating science with indigenous knowledge, simplifying advice, and using multiple channels to reach various groups should be pursued.

Good practice recommendation(s): Taken forward into other adaptation-relevant interventions, the following strategies should be observed:

- It is necessary to collect and disaggregate data by sex, age, economic status, ethnicity, caste, and disability (as a minimum standard), to identify marginalised groups and make their different needs and capacities more visible to decision-makers. This includes reviewing existing indicators and identifying additional ones where necessary (p.87). To this end, disadvantaged groups need to be clearly defined from the outset to be a meaningful category for analysis, based on existing literature, stakeholder consultation and qualitative information. An insufficiently clear definition of disadvantaged social groups or categorization of households during the survey can distort results, lead to overlap between study groups and result in the absence of significant differences between groups. As such, it is important to ensure the categorisation is well informed (ibid, p.26)

- It is necessary to promote the representation of marginalized groups in leadership and inclusive participation in decision-making processes (while ensuring this is voluntary and does not add a burden) to make sure people's needs and priorities are self-identified and included within policies and programmes that aim to build women and other marginalised groups' resilience to climate change and natural hazards (ibid, p.87).

- It is necessary to refine the methodology and approach to better capture the complexities of intersectionality and better means to identify and measure significant differences between groups. One option would be to look also at geographical location, using GIS to map environmental characteristics, access to infrastructure and risk profile, which could help guide the sampling (ibid, p.87).

Water Management

The effects of climate change on water will present some of the greatest challenges the world will face. This will be in the form of increased activity at the extremes, including droughts and extreme rain events that cause floods. It will also be characterized by greater variability, meaning more unpredictable rainfall patterns. Therefore, sustainably managing water resources will be of critical importance to ensure people across the world have access to water for their daily needs. Adaptation in this sector can take shape at a variety of levels, from households employing techniques to harvest rainwater, all the way to entire watersheds, where ecosystem-based adaptation can improve the ability of natural systems to function effectively, thus securing water resources on a regional scale.[122]

Adherence to traditional gender roles in many developing countries means that women and girls are often involved in managing water for their households, bearing a greater burden of response to climate change impacts on Water, Sanitation, and Hygiene (WASH) in terms of collection, treatment, and storage of water. In addition to procuring water for domestic uses, women's involvement in rainwater-fed/dependent agriculture also makes them key users and custodians for productive water resources, thus necessitating the need to access and use water for irrigation and livestock use.[123] Despite these contributions, women are rarely involved in making decisions about the management of water resources.

In 1992, the United Nations Conference on Environment and Development (UNCED) recognized these gender dynamics, and embedded the issue of gender equality in the Dublin Statement on Water and Sustainable Development (the Dublin Principle), which established that *"women play a central part in the provision, management and safeguarding of water,"* and therefore, it is important not only to address the specific needs of women with regard to water but also to empower them to participate *"at all levels in water resources, including decision-making and implementation."*

In light of these international commitments, there is a need for gender-inclusive projects/programmes to facilitate women's empowerment through equal participation and leadership in management bodies and recognize their unique knowledge of water resources. [124] This need is even more pronounced under climate change, which has intensified women's and girl's labor and time burden as primary water collectors and protectors. As water scarcity, heatwaves and droughts become more widespread, women and girls find themselves walking greater distances to fetch water. This burden tends to be intensified for poor, low-caste women making them more vulnerable to water shortages.[125] Furthermore, differences between women – such as age, marital status, caste, remittance flow, and land ownership – also influence women's participation in and benefits from water management.[126] Intersectional approaches to gender

[122] https://www.adaptation-fund.org/projects-programmes/project-sectors/water-management/
[123] IFPRI (14 March 2019). Considering gender in irrigation: Meeting the challenges women farmers face in technology adoption, blog.https://www.ifpri.org/blog/considering-gender-irrigation-meeting-challenges-women-farmers-face-technology-adoption
[124] IUCN (21 March 2021). The role of women in water governance, blog. https://www.iucn.org/news/environmental-law/202103/role-women-water-governance
[125] Shrestha, G., & Clement, F. (2019). Unravelling gendered practices in the public water sector in Nepal. Water Policy, 21(5), 1017-1033. https://doi.org/10.2166/wp.2019.238
[126] Stephanie Leder, Floriane Clement and Emma Karki (2017). Reframing women's empowerment in water security programmes in Western Nepal, Gender & Development, 25:2, 235-251, https://dx.doi.org/10.1080/13552074.2017.1335452

mainstreaming in water management are needed to recognize these differences and provide strategies that respond to the unique situations of different sub-groups of women and girls.

The sanitation and hygiene components of WASH have received comparatively less attention than other water issues but are equally important in the fulfilment of women's and girl's rights and their economic and social development. *"Ensuring safe and widespread access to WASH for women and girls contributes to gender equality and their inclusion in society. This is also critical when talking about menstrual hygiene management, which still carries significant stigma and is considered taboo in many areas around the world. Consequently, until recently, menstrual hygiene was completely overlooked in sanitation policies and programming, further excluding women and girls from public life. In many cases, it means that, during this time, girls have to miss school and women are sometimes forced to stay home, missing out on a day's income"* (IUCN, 2021).

To date, most interventions in the WASH sector that have sought to reach women and girls as beneficiaries have used practical gender needs as an entry point. Practical gender needs are needs that have been identified by women in relation to their *currently defined* social roles. For example*, "providing women with a water tap may make their lives easier by reducing the time burden of collecting water, so they may have more time for other domestic work. Meeting these practical needs improves the wellbeing of women, but it does not change their status in society"* (Megaw 2020, p.13). Less-common but emergent are interventions that focus on meeting strategic gender needs – needs that challenge traditional gender norms and roles that pattern divisions of labor, power, and control. An example of this would be supporting women as leaders/managers of WASH facilities. Such an intervention could contribute to enhancing women's status in a community, which could spur changes in power relations. However, such interventions are rare, and those that do endeavor such an approach have also failed to recognize the differences between women, leading some groups of women to benefit more than others from WASH interventions. This was the case in a recent project in Nepal (FN 126) that illustrated how a lack of attention to the intersections of gender and intra-household relations and caste and class relations complicated women's empowerment outcomes as water managers.

For example, intra-household relations impacted women's ability to attend trainings on water management:

"Attending meetings relied not only on husbands' permission but also on the willingness and ability of another female family member to manage some domestic tasks on her behalf. Young women, in particular, were primarily responsible for household work and childcare, and their ability to expand their agency critically depended on the labor and emotional support from other female family members, including the mother-in-law" (ibid, p.242).

Caste-class relations also impacted women's ability to participate meaningfully as decision-makers within the water security programme:

"Despite the projects' intentions to include Dalits and women in meetings and in decision making processes related to project implementation, the lack of consideration of the subtleties and complexities of intersectional power relations led to counter-productive results. For instance, as staff were informed to include Dalits and women, they often selected female Dalits. This resulted in meetings with Chettri men and Dalit women, which created a 'double barrier' for Dalit women to express their views and influence the decision-making process. Hence, their agency, the ability to make and influence decisions on which taps, and sources would be upgraded or on the location of installing new taps, was restricted, as their participation was tokenistic, and they were unable to influence decision-making" (ibid, p.244).

These examples highlight the need to account for the intersectionality of gender in WASH programming, looking at how gender is shaped by social networks and relations at both the intra-household and community levels. To account for the knowledge and lived experiences of different groups of women, tools are needed to generate inclusive dialogues to highlight intra-gender differentiation and other aspects of social differentiation in the WASH sector. Case Study 9 provides several examples of activities to stimulate discussion in these areas to strengthen climate change response.

Case 9 Integrating the knowledge and lived experiences of women and marginalized groups in WASH strengthens climate change response

Background: The Institute for Sustainable Futures at the University of Technology Sydney (ISF-UTS), in partnership with Plan International Indonesia and WaterAid Timor-Leste, lead the "Climate Change Response for Inclusive WASH" Water for Women project.[127] The project drew from a range of climate change adaptation (CCA), water, sanitation, and hygiene (WASH) and gender and social inclusion (GSI) concepts and on recent research approaches for assessing climate change. The rationale for the project was couched in the reality that experiences of climate change impacts are not felt uniformly by local communities: rather, men, women, children, people with disabilities and minority and marginalized groups have varied experiences derived from localized gender norms and existing inequalities that result in differences in resource access and use, alongside differential levels of wealth, knowledge, and power.

Of the five publications emergent from the project, two guidance notes designed closely with Plan International Indonesia[128] and WaterAid Timor-Leste[129] field staff outline easy-to-implement community-based activities to get local stakeholders thinking about how people are affected differently by climate impacts on WASH, and how gender and social inclusion in WASH builds climate resilience. Two case studies, one focusing on rural sanitation in Indonesia and one focusing on rural water in Timor-Leste, shed light on the experiences of community members with climate impacts on WASH. The case studies demonstrate the way gender, and social norms and structures shape how people feel about and respond to climate change. Finally, a learning paper[130] explains interconnected key concepts: gender and social inclusion, WASH, and climate change, and how these informed the research behind these outputs.

Intersectional approach: The project created a bespoke conceptual framework for integrating different ideas and practices from WASH, CCA and GSI. The first and foundational component of the framework is *"the knowledge and lived experiences of women and marginalized groups*" (FN 136, p.3). This concept is integrated across the other seven components of the framework, including climate hazards and uncertainty, climate change impact types (including physical access to WASH, water resources and ecosystem impacts, livelihoods, and wellbeing), differential impacts and unequal burden of response, access to resources and participation in decision-making, and psychological factors. The "knowledge and lived experiences of women and marginalized groups" was chosen as the foundation for the framework because *"climate change is not experienced equally by all members of a community, and climate change is likely to have more severe impacts for the poor, women, children, sexual and gender minorities, people*

[127] Full list of project outputs available here: https://waterforwomen.uts.edu.au/climate-change-response/#outputs
[128] Kohlitz, J., Megaw, T., Chong, J., Sugi, F., Palaipeni, P., Emanual, Y., Brikman, H., Joman, Y., Landa, S., Talan, J., Leong, L., Kelleher, J. and Gero A. (2020). Climate Change Response for Inclusive WASH: A guidance note for Plan International Indonesia. Prepared by ISF-UTS for Plan International Indonesia. https://multisitestaticcontent.uts.edu.au/wp-content/uploads/sites/57/2021/03/08190901/Guidance-Note-CCRIW-Indonesia-1.pdf
[129] Kohltz, J., Leahy, C., Chong, J., et al. (2020). Climate change response for inclusive WASH: A guidance note for WaterAid Timor-Leste. Prepared by ISF-UTS for WaterAid Timor-Leste. https://www.uts.edu.au/sites/default/files/2021-01/Guidance%20Note%20-%20CCRIW%20-%20TL.pdf
[130] Megaw, T., Kohlitz, J., Gero, A. & Chong, J. (2020). Understanding and responding to climate change impacts in inclusive WASH programs – a conceptual framework – Learning Paper. Institute for Sustainable Futures, University of Technology Sydney. https://www.uts.edu.au/sites/default/files/2021-01/CCRIW%20Conceptual%20framework.pdf

with disabilities, indigenous and ethnic minorities as these groups tend to have less access to resources, information, and decision-making processes" (ibid, p.11).

For example, applied to differential impacts and unequal burden of response to climate change impacts on WASH, analysis of the "knowledge and lived experiences of women and marginalized groups" in the areas of water quality impacts, water scarcity impacts, physical access to WASH facilities, and destroyed/damaged toilets reveal the following (ibid, p.11):

Water quality impacts

- *Women and girls usually are tasked with filtering or boiling water, and boiling water using an indoor wood stove raises their risk of respiratory illness.*
- *Poor households are less likely to have access to household water treatment technologies.*
- *Marginalised groups are less likely to have access to information about climate events (e.g., early warning systems), and therefore be less able to prepare (e.g., to store clean water in their home before a storm hits).*

Water scarcity impacts

- *If more distant waterpoints must be used because primary water sources are dry, women and girls may bear the burden of collecting water and may be at risk of harassment while travelling to access water.*
- *Community elites may capture scarce water sources and dictate the terms of access for less powerful groups.*
- *Water scarcity may result in more stress on families and household disputes blaming women or children for not being able to procure water.*
- *Water fees may rise making safe water unaffordable for poorer households.*
- *Women typically have higher water needs for hygiene and thus are impacted more.*
- *Poor households are less likely to have resources to store water (e.g., safe storage tanks) or collect water safely from alternative sources (e.g., rainwater harvesting systems).*

Physical access to WASH facilities

- *People with disabilities, or limited physical abilities (e.g., pregnant women or the elderly), are more likely to struggle to access waterpoints and toilets when land conditions become waterlogged, muddy, or slippery.*
- *On extremely hot days, water-carrying women and girls (especially elderly women) can be affected by heat stress/exhaustion.*
- *"Climate-proofing" WASH infrastructure (e.g., raised platforms with steps to avoid floods) can make it more difficult for people to access.*

Destroyed or damaged toilets

- *Poor households are more likely to struggle to repair toilets damaged by climate hazards and may be more likely to be driven to revert to open defecation.*

• *If toilets are no longer usable because they have been destroyed or damaged by climate hazards, women and girls are more likely to face issues with privacy or harassment while defecating or managing menstrual hygiene.*

From this conceptual framework, the project designed several community-based activities aimed at generating inclusive dialogues on gender roles and responsibilities related to WASH, and how these intersected with community member's other aspects of social differentiation/marginalization, such as disability. These activities included:

Climate-sensitive community mapping: Facilitates women and men to identify the locations where climate-related hazards affect the community (e.g., where it floods, where landslides occur, etc.) by drawing a map of where they live. They then discuss how these climate impacts affect women, men, and people with disabilities in different ways. The results can provide insights on building sustainable and inclusive toilets (FN 137, Indonesia case study, p.6).

Climate impact diagram: This is a version of systems mapping in which the community uses picture cards to create a map of the key climate change risks that may be faced in this area. They then identify the direct and indirect impacts of these risks on water, sanitation, and hygiene in the community. Finally, they identify the differential impacts on people in the community, highlighting those most disadvantaged when WASH systems and services are impacted by climate change. (Indonesia, FN 138, Timor-Leste case study p.4)

Who Does, Who Decides in Climate Change Scenarios: The community identifies different ways that women and men are involved in and affected by WASH issues, workload and decision-making and anticipates changes that may occur during extreme climate scenarios such as prolonged dry seasons or very heavy wet seasons (FN 138, Timor-Leste case study, p.5).

Five resources: This draws on the Sustainable Livelihoods Framework to look at human; physical; natural; social and financial resources that constrain or enhance sustainable livelihoods. This strengths-based activity supports residents to identify resources that they already have in the community that can be used to address climate impacts and then to come up with examples of how these resources might be used to cope with or adapt to climate change events (Indonesia, FN 138 Timor-Leste case study, p.5).

Lesson learned/outcome: Findings from the case study in Indonesia[131] revealed that gendered social norms often constrained younger and older women's participation and decision-making in WASH. For example, In Indonesia, in the case that local consultations were held (for example village meetings on where to install water pumps), usually only the male 'head of household' would attend. Yet, women and girls were usually those responsible for collecting water from the pumps, and their ability to apply their

[131] Megaw, T., Kohlitz, J., Chong, J. (2020). Socially-inclusive Responses to Climate Change Impacts on WASH: Case Study in Manggarai, Flores, Indonesia. Prepared for Plan International Indonesia by ISF-UTS. https://www.uts.edu.au/sites/default/files/2021-01/Case%20Study%20CCRIW%20-%20Indonesia.pdf

knowledge and make decisions on matters of installation were extremely important towards the water security of the community. It was also noted in Indonesia that people with disabilities were usually not invited to participate in community consultations, but when they did attend, they made valuable contributions by sharing the unique challenges they faced in accessing water and public sanitation services. In both instances, *"Women and other marginalized people's diverse local knowledge, ideas and experiences are valuable and essential for adapting to climate change but are often missing or underutilized from household level decision-making to more formal governance structures. While there is diversity in terms of women's experiences of climate change (e.g., through differences in age, class, ethnicity, and environmental setting), the dominance of men's perspectives in policy and practice excludes women's knowledge and experiences*" (FN 137, p.6).

Findings from the case study in Timor-Leste[132] suggest that climate change hazards affect men and women of different ages and people with disabilities differently. For example, the 'Climate impact diagram activity' revealed that while extreme wet seasons result in poor water quality that would affect everybody, pregnant women and people with disabilities are particularly affected because they are more reliant on others to prepare and manage clean water. The 'Who does who decides' activity illustrated that during long dry seasons that reduce water availability, gendered intra-household conflict over workloads can increase, for example, older men and boys may need to work longer hours in the fields to source feed for animals (which has become scarcer) while women of different ages (girls, elderly women) need to dedicate more time towards sourcing and managing scarce water for the household.

Good practice recommendation(s): Overall, to fully understand the intersectional gender roles in water collection, use, and management and the challenges that women and girls may face with regard to access to water and safe sanitation, it is essential to collect more and better data that is disaggregated by gender and considers the intersectionality of gender with other factors (such as disability, class, ethnicity, or wealth) that may affect access to WASH. Data disaggregation should be done for both quantitative (e.g., surveys, structured questionnaires) and qualitative sources (e.g., non-numerical data collected from participatory mapping activities, interviews, etc.) of data to develop guiding questions for performance reporting and monitoring. This would assist in determining the impact of individual and compounding intersections (e.g., wealth, caste) on access to, and control over, water.

Additional points of triangulation to the intersectional dataset should also be considered and planned for within a project/programme cycle. For example, in Timor-Leste, a feedback session with diverse community participants (e.g., older and younger men and women, people with different types of disabilities) were held after the first two climate change activities to validate the analysis and results and ensure accuracy in reporting. In Indonesia, interviews and focus group discussions were carried out during initial project planning to add depth of learning to support the researchers in developing context-specific climate change assessment tools.

[132] Leahy, C., Kohlitz, J., Chong, J. (2020). Socially-inclusive Responses to Climate Change Impacts on WASH: Case Study in Asumanu, Liquiçá , Timor-Leste. Prepared for WaterAid Timor-Leste by ISFUTS. https://www.uts.edu.au/sites/default/files/2021-01/Case%20Study%20CCRIW%20-%20TL.pdf

Future adaptations of this project's framework and activities could be made more fully intersectional by explicitly examining the differences between sub-groups of women, men, and non-binary people from different age groups and with different types of disabilities. The original framework's homogenization of "*women and marginalized groups"* misses out on the important intra-group differences that occur within these groups.

Health

Recently, there have been calls for adaptation-relevant interventions to be *"designed and implemented in ways that avoid potentially significant negative impacts on public health and to provide fair and equitable access to benefits in a manner that is inclusive and does not impeded access to basic health services. Public health is determined not just by access to medical care and facilities and lifestyle choices, but also by a much broader set of social and economic conditions in which people live"* (AF ESP, 2016, p.6; AF ESP guidance, pp.6, 17). Climate change, including climate variability, has multiple influences on human health[133], and the sector of public health is increasingly relevant, and overlaps with the other sectors of agriculture and food security, disaster risk reduction and prevention and water and sanitation management. Climate change and related disasters from increasingly frequent and intensified extreme weather events directly impact public health, intensifying the risk of diseases and long-lasting health impacts, especially amongst women and vulnerable groups.[134] For example, extreme weather events often create conditions conducive to outbreaks of infectious diseases, as heavy rains produce insect breeding grounds and contaminate clean water sources, and droughts can cause fungal spores and spark fires.[135]

Intersectional approaches to gender mainstreaming in health enable a multi-dimensional perspective of the factors of privilege and penalty within society that help shape gendered health outcomes (e.g., to examine why health inequalities exist for men, women, transgender, and non-binary people). Such approaches consider the interactions between different aspects of social identity (i.e., sex, gender, racial/ethnic community, and class) as well as the impact of structural systems on health outcomes shaped for example by access to and affordability of health services. Studies[136] show that transgender and non-binary people are more likely to face barriers to accessing appropriate health care than cisgender people, despite being at a higher risk for some diseases. The discrimination and criminalization of LGBTQ people in many countries often leads to avoidance of care and/or prevents them from accessing health services – dynamics that have been exacerbated during the COVID-19 pandemic.[137] For example, in Kenya, LGBTQ activists say criminalization has created a culture of societal homophobia and transphobia that has hindered access to health services.[138] A study[139] on transgender people's experiences seeking health care in South Africa similarly found that participants reported experiences of hostile and discriminatory behavior by health care workers.

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[133] WHO. Health Adaptation to Climate Change, https://www.who.int/globalchange/climate/gefproject/en/

[134] Rezwana, N. (2017). *Disasters, gender, and access to healthcare: women in Coastal Bangladesh*. Routledge.

[135] International Union for Conservation of Nature (IUCN), Disaster and gender statistics fact sheet. https://www.unisdr.org/files/48152_disasterandgenderstatistics.pdf

[136] Müller, A. (2017). Scrambling for access: availability, accessibility, acceptability and quality of healthcare for lesbian, gay, bisexual and transgender people in South Africa. *BMC international health and human rights*, *17*(1), 1-10. https://link.springer.com/content/pdf/10.1186/s12914-017-0124-4.pdf

[137] Madrigal-Borloz, V. **(**2020). Report to the UN General Assembly: The Impact of the COVID-19 Pandemic on the Human Rights of LGBT Persons. United Nations Independent Expert on protection against violence and discrimination based on Sexual Orientation and Gender Identity - IE SOGI. https://www.ohchr.org/Documents/Issues/SexualOrientation/ImpactCOVID19LGBTpersons.pdf

[138] Langat, A. (2021). Criminalization and stigma limit LGBTQ access to health care in Africa, DEVEX blog, updated May 5, 2021. https://www.devex.com/news/criminalization-and-stigma-limit-lgbtq-access-to-health-care-in-africa-99725

[139] Luvuno, Z. P., Ncama, B., and Mchunu, G. (2019). Transgender population's experiences with regard to accessing reproductive health care in Kwazulu-Natal, South Africa: A qualitative study. *African journal of primary health care & family medicine*, *11*(1), 1-9. http://dx.doi.org/10.4102/phcfm.v11i1.1933

Several recent publications have sought to examine how gender mainstreaming in the health sector can adopt an intersectional approach.[140] The most comprehensive is a toolkit published by the World Health Organization (WHO) in 2020, which is discussed in case study 10.

[140] Vélez, A. C. G., Coates, A., Garcia, V. D., & Wolfenzon, D. (2020). Gender equality and health equity: strategic lessons from country experiences of gender mainstreaming in health. *Revista Panamericana de Salud Pública*, *44*. https://doi.org/10.26633/RPSP.2020.129; Tolhurst, R., Leach, B., Price, J., Robinson, J., Ettore, E., Scott-Samuel, A., Kilonzo, N., Sabuni, L.P., Robertson, S., Kapilashrami, A. and Bristow, K., (2012). Intersectionality and gender mainstreaming in international health: Using a feminist participatory action research process to analyse voices and debates from the global south and north. *Social Science & Medicine*, *74*(11), pp.1825-1832. https://doi.org/10.1016/j.socscimed.2011.08.025

Case 10 Intersectional gender analysis in the health sector[141]

Background: In 2020, WHO published the toolkit, "Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researcher." The aim of the toolkit was to strengthen the capacity of researchers working on infectious diseases of poverty by incorporating an intersectional gender approach. The objectives of this document were to: 1) strengthen the research capacity of disease-affected countries in intersectional gender approaches; 2) understand and address barriers to effective and quality implementation of health interventions oriented to prevent and control infectious diseases; and 3) explore solutions for enhancing equality in access to quality health care. While this toolkit includes a focus on research that prioritizes the prevention and control of infectious diseases of poverty, it is equally relevant to other health research and interventions. The rationale for using gender as an important entry point in considering health from an intersectional approach was explained this way: *"While intersectionality analysis aims to move away from one dominant social category of analysis, resists essentializing and is nonadditive, sometimes prioritizing one social axis as an entry point into more complex analysis can be necessary. Due to the documented importance of the interrelationship between gender, vulnerability, and infectious diseases of poverty, within this toolkit we prioritize gender as our entry point into a deeper intersectional analysis that explores how other categories of difference interact with gender and how it changes through space and time. This is referred to as 'intersectional gender analysis'" (p.6).*

Intersectional approach: The toolkit represents a methodological innovation towards more holistic understandings and analyses of intersectional inequalities. Although it was created to better understand intersectional vulnerability in terms of the prevention, control, and management of infectious diseases (e.g., analysis of vulnerability to disease, exposure to disease, experiences of disease, health-related decision-making, responses to treatment, and impacts on individuals and social groups), the intersectional gender lens adapted by the toolkit has broader applicability to other adaptation-relevant interventions beyond the field of health. For example, the toolkit presents an intersectional gender analysis wheel as a visual tool to assist in thinking through what intersectionality means in practice (see Figure 2, p.7). The intersectional gender analysis wheel helps show how an inner circle of multiple individual characteristics interact, for example, age, gender, education, etc. within an outer circle of wider processes of social (ableism, racism, etc.) and structural (politics, capitalism, etc.) discrimination to shape an individual's position within society. This tool is helpful for exploring how, starting from the inner circle, one can look at individual-level intersecting positionalities and how these would interact with broader structural forms of discrimination to impact health outcomes and health-related decision-making. For example, for people with non-binary gender identities, their access to, and quality of, healthcare would be mediated by religious beliefs and social perceptions that are homophobic. These beliefs and perceptions would help generate subsequent legal systems that support homophobic tendencies, for example, with laws that criminalize homosexuality or enshrine a binary-only view of gender in society. This combination of social

[141] World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

perceptions, religious beliefs and legal systems would contribute towards a health care system that would not acknowledge non-binary people, could deny them care, and/or not offer specific services to address their health. Thus, individuals with non-binary gender identities' health outcomes and health-related decision-making would be mediated by these broader structures of discrimination. Additional individual-level intersecting positionalities can also be analyzed within this example - for people with non-binary gender identities who are from ethnic or racial minorities, they would also face broader structural racism in addition to homophobia, compounding their vulnerability. A consideration of how the healthcare system is equipped in dealing with health issues in the context of climate change impacts and addresses people's vulnerability, inclusive of all genders, would need to take this into account.

The toolkit highlights several examples of how gender and other social axes intersect to shape risk and vulnerability to different infectious diseases of poverty. These include:

- Occupation and gender can intersect in areas where fishing, farming, and hunting are common to present greater risk of infection in men when sleeping outside (Lymphatic filariasis).
- In areas where subsistence living is more common, and livelihood activities are less segregated by gender, disease risk is frequently similar (Lymphatic filariasis).
- Poverty and low social status can lead to poor and overcrowded living conditions, which enhances the risk of transmission (Leprosy, Ebola).
- Gender roles intersect with the environment where women wash utensils and clothes in infected waters, meaning that women may have higher infection rates than men in some settings (Schistosomiasis).
- Age, environment, and gender intersect in some contexts to increase exposure to sand-fly bites for women and boys who work in agriculture and animal care when collecting water (Leishmaniasis).
- Culture intersects with gender in some contexts to mean that children and men play and work outside with exposed bodies leading them at greater risk of blackfly bites (Onchocerciasis).

Lesson learned/outcome: Within the toolkit, intersectional gender analysis is used to illustrate how health outcomes are experienced differently by different groups of men/boys, women/girls, and people in all their diversity, including people with non-binary identities, how gender inequities manifest within a particular context, how they intersect with and are influenced by other drivers of inequality, and where these differences might be the result of inequities. Because broader social and historical forces intersect with discrimination (e.g., racism, sexism, transphobia, homophobia, ageism, classism, ethnocentrism) to shape individual and household level access and positioning towards healthcare, by generating evidence about these differences, health care practitioners and policymakers are better able to create policies, services, and programmes to address these differences.

Good practice recommendation(s): While the following checklist (p.136) was listed as useful during the design, development, and implementation of intersectional approaches to gender mainstreaming in the health sector, the checklist also has broader applicability to adaptation-relevant interventions, for

example, for helping shape an intersectional approach to gender and social impact assessments and corresponding project/programme design:

Design and development of research, including development of research protocol:

- Using gender analysis framework to guide development of research objectives, questions, and hypotheses, data collection tools, and analysis
- Disaggregating data by sex and other social stratifiers within sample design
- Developing a gender analysis matrix
- Developing intersectional gender analysis questions to inform overall study objectives, questions, indicators, and/or hypotheses, and/or data collection tools and analysis
- Including intersectional gender analysis questions in data collection tools and analysis
- Incorporating participatory research methodology into research design (if aim includes transforming inequitable gender power relations)

Data collection:

- Including intersectional gender analysis questions in data collection tools
- Using participatory research methods to transform inequitable gender power relations (if aim includes transforming inequitable gender power relations)
- Considering ways in which underlying gender power relations can be challenged and progressively changed during research process
- Ensuring research process is not negatively affected by gender power relations

Data analysis:

- Incorporating intersectional gender dimensions into the analysis of data (i.e., through use of variables/indicators and coding framework)

Dissemination and reporting:

- Including gender-sensitive evidence within reports and other dissemination material
- Including intersectional gender-related policy, programme and research recommendations that aim to address gender inequalities and disseminated to relevant stakeholders
- Ensuring that research recommendations do not perpetuate existing gender inequities

4. Reflections and recommendations on how to apply intersectional approaches to gender mainstreaming in adaptation-relevant interventions

This section provides a synthesis of the main findings from the desk review and discusses the potential benefits and challenges in integrating an intersectional approach in adaptation-relevant interventions. Following on this, promising directions for future study and recommendations for integrating intersectionality in gender mainstreaming in adaptation-relevant interventions are presented.

What is the value addition of intersectional approaches?

"The significance of intersectional analysis of gender lies in its potential to explore differing vulnerabilities of women, men, girls, boys as well as people living with disabilities and gender diverse populations to crises along with their differentiated capabilities, multi-dimensional deprivations and coping strategies to underlie the most effective response programmes. Illuminating unequal power relations underlying social institutions, an intersectional analysis of gender exposes how various personal, social, and environmental factors influence the achievement of broader well-being, and ensures that interventions do not marginalize particular groups."[142]

This scoping study set out to identify what an intersectional approach to gender mainstreaming in adaptation-relevant interventions is. The findings from the study revealed that there is no singular approach, and that the understandings and implementation of intersectional approaches among development and other types of institutions vary. However, across different adaptation-relevant sectors and methodological approaches, common themes emerged that indicate the relevance of intersectional approaches and provide practical examples of how these can be applied and how they could strengthen existing gender mainstreaming strategies and practices.

The first common theme is that intersectional approaches help shed light on the nature of multi-dimensional and intersecting gendered vulnerabilities to climate change. This lens deepens understanding of the particular vulnerabilities people experience, as well as what adaptation strategies (e.g., agricultural diversification, migration, collective action) would be available to them depending on other intersecting categories of privilege or marginalization. For example, an intersectional gender lens can reveal how men, women and non-binary people may be differently vulnerable depending on their livelihood strategy; their access to and ability to use climate information services; climate insurance; mobility; access to and control over productive resources including land, water, and agricultural inputs; and access to markets and basic services, all of which are mediated by other dimensions of identity including race, ethnicity, disability, age,

[142] UNHCR, CARE and ActionAid. (2020). An Intersectional Analysis of Gender amongst Rohingya Refugees and Host Communities in Cox's Bazar, Bangladesh. An Inter-Agency Research Report, September 2020. https://www.careevaluations.org/wp-content/uploads/Coxs-Bazar-Abridged-vesrion_Gender-and-Intersectionality-Report-2020.pdf

class, caste, etc.[143] Intersectional approaches also illuminate 'double or compound vulnerabilities' at intersections of multiple social exclusions, that would otherwise not be visible through a binary gender mainstreaming lens.

While differentiated vulnerability was perhaps the most oft-cited framework for understanding why an intersectional approach is relevant to gender mainstreaming in adaptation interventions, of equal importance are the ways intersectionality helps better understand and support people's agency and resilience through its examination of power relations. This type of intersectional examination requires a shift in language away from a primary focus on vulnerability to recognizing and acting upon the inherent values, importance, and potential of people who might be underprivileged or otherwise marginalized. This necessitates moving beyond intersectional analysis to respond just to "locally contextual factors", to ultimately provide lasting change to the underlying systemic exclusions and forms of marginalization. This illustrates the potential of intersectional approaches to shift adaptation-relevant interventions towards more gender-transformative approaches (as opposed to 'gender responsive' or 'gender sensitive' through conventional binary understandings of gender).

In recognizing people's agency and resilience, intersectional approaches facilitate moving beyond a narrow focus on gender safeguards and prevention of gendered harm to pro-actively addressing how adaptation measures can promote gender equality, the empowerment and agency of women and girls of all backgrounds, and consider and address, to the extent possible, multi-faceted gender differentiated vulnerability to climate change through support of the broader sociocultural and institutional changes necessary to sustain such progress beyond one-off interventions. In this way, intersectional approaches applied to gender mainstreaming in adaptation-relevant interventions could facilitate or accelerate the achievement of gender equality by moving progressively along the gender equality continuum from gender blind to gender transformative.

[143] Nelson, S. and Hill, C. (2019). Gender in adaptation planning for the agriculture sectors: Guide for trainers. Rome. http://www.fao.org/3/ca7088en/ca7088en.pdf

Why are intersectional approaches relevant and needed in gender mainstreaming in adaptation-relevant interventions? (Adapted from Chaplin et al., 2019, p.1)

•Intersectional approaches offer a way to understand and respond to the ways gender intersects with different factors, such as age, disability, and ethnicity, to shape individual identities, thereby enhancing awareness of women and girls, men and boys, and non-binary people's needs, interests, capacities, and experiences. This in turn will help in targeting policies and programmes.

•Gendered social groups are neither homogenous nor static, and intersectional approaches recognize this complexity by taking historical, social, cultural, and political contexts into account. Intersectional approaches help us understand the differentiated nature of gendered vulnerability and resilience. They also draw attention to the social root causes of gendered vulnerability, creating a more nuanced picture.

•Intersectional approaches help to uncover dynamics that can shape gendered vulnerability and resilience. Intersectionality emphasizes the constant renegotiation of gendered power relations and how individuals and groups can experience both power and oppression simultaneously.

•There is no single approach or defined set of methods for seeking intersectional understandings of gendered vulnerability and resilience relating to climate change and natural hazards. Better collection and sharing of disaggregated gender data and analyses relating to the circumstances of vulnerable, marginalized, and at-risk people will also be a necessary input to guide resilience policy and programming.

Reflections on potential challenges, limitations, and future directions

Would there be any challenges or limitations in applying an intersectional approach?

There have been recent theoretical debates on the tensions, problems, and possibilities regarding the application of intersectionality to gender mainstreaming agendas. As of the writing of this study, there is currently a fissure in the field of gender and development practitioners in terms of if, and how, intersectional approaches should be applied to gender mainstreaming agendas.[144] Some worry that approaching intersectionality issues with a broader social inclusion framing, such as in GESI, could easily lead to a dilution of a focus on gender power issues and risk curtailing the advances made towards enhancing women's status in terms of actively benefitting from interventions. For example, stakeholders might choose a 'path of least resistance' in selecting which intersectional group to support (e.g., supporting young men by donating assets is easier than renegotiating communal and intrahousehold gender roles or legal reforms such as women's land rights). In this vein, under the larger umbrellas of "inclusion for all" or "diversity mainstreaming", gendered power differentials could be watered down, or legitimately ignored in favor of an exclusive focus on other identity markers.[145] Thus, it has been stressed, herein and elsewhere that gender power must be a central theme in intersectional approaches. Whether gender is stipulated 'a priori' in intersectional approaches is an ongoing discussion in the academic literature (although the concept's provenance in the context of gender and feminist analysis is uncontested), but thus far, as described in the desk review, a wide range of development and humanitarian organizations have found gender to be a useful entryway into and a core lens for applying intersectionality in their policies and strategies.

That is not to overstate the ease of applying intersectionality in adaptation-relevant contexts. For example, researchers at IIED have identified several challenges with implementing intersectional approaches in their work:

"Many researchers acknowledged numerous practical and conceptual challenges when working on gender and intersectionality — either as a focus of their projects or as elements to integrate into research with a different focus. Common concerns included the complexity of analyzing gender and other characteristics of difference; limited knowledge of how to design gender-transformative research; and the long-term engagement essential for tackling structural disadvantage. When gender-disaggregated data are collected, it can be challenging to analyze the findings if the original research questions and/or conceptual framework were not developed to focus on gender and intersectionality. Meanwhile, given IIED's emphasis

[144] For a summary of this debate, see: Hunting, G., and Hankivsky, O. (2020). Cautioning Against the Co-Optation of Intersectionality in Gender Mainstreaming. *Journal of International Development*, *32*(3), 430-436. https://doi.org/10.1002/jid.3462

[145] Einarsdóttir, T., and Thorvaldsdóttir, T. (2007). Gender Equality and the Intersectional Turn. *Kvinder, Køn &Amp; Forskning*, (20-31). https://doi.org/10.7146/kkf.v0i1.27936

on co-producing research with Southern partners, staff were sometimes unsure about how best to pursue gender and intersectionality in research if these topics were not already a local priority."[146]

Indeed, expecting parties to contend with issues they are politically or culturally opposed to (such as diverse gender and sexual identities, also given criminalization in many countries where adaptation measures are implemented) would likely be difficult to navigate, at least in the beginning and often require carefully and inclusively negotiated and collectively implemented, often incremental efforts.

Nevertheless, because of the multiple and complex layers of exclusion and marginalization within societies, even if not all characteristics of intersectional difference are comprehensively acknowledged in an intervention, the incorporation of any additional intersectional lenses would advance understandings of gendered vulnerability and resilience beyond a static perception of men and women as binary, homogenous groups. The application and advancement of intersectional approaches to adaptation-relevant interventions should be viewed as a process/pathway towards greater understandings and inclusion, as opposed to an "end-product" or "all-or-nothing" proposition. The comprehensiveness of applications of intersectionality will depend on local contexts, including potential cultural, legal, or political restriction or opposition to some or all aspects, but these should not be used as an excuse to not pursue intersectional approaches at all. Indeed, as the case study examples illustrate, any type of incremental improvement towards intersectional understandings of gender would facilitate more-informed interventions based on a more nuanced approach compared to conventional binary gender analyses.

Would there be any ways to prevent these pitfalls?

In envisioning what potential safeguards could be applied to ensure the potential of applying an intersectional approach wins out over the pitfalls, it is helpful to consider the reality that, *"In some situations, there may be competing issues at play, and we must consider carefully how – or whether – countervailing responses resolve inequalities; it is too easy to make situations worse and put partners and other people at risk."*[147]

One core potential safeguard would be in ensuring that any intersectional approach maps onto overlapping agendas towards gender equality, for example, by embedding intersectionality into an existing human rights framing given that almost all countries that have taken on commitments to advance climate actions have also taken on comprehensive responsibilities under existing international human rights frameworks, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The centrality of such a human rights-centered framing for gender-responsive climate

[146] Sverdlik, A. (2021). Gender and intersectionality in action research. IIED, London. https://pubs.iied.org/20036IIED
[147] International Institute for Environment and Development (IIED). (6 January 2021). Exploring intersectionality: what does it look like for IIED and our partners? https://www.iied.org/exploring-intersectionality-what-does-it-look-for-iied-our-partners

action has been highlighted among others by UN Women and the UNFCCC[148] and advocated for by the Office of the United Nations High Commissioner for Human Rights (OHCHR), which stated:[149]

"Sustainable climate action that benefits all people within a society requires knowledge and consideration of the different roles, responsibilities, priorities, capabilities and needs of all of its members. This must involve a rights-based, gender-responsive approach at the local, national, and international levels that ensures that all people, including and especially women, are included, consulted, and empowered to participate in decision-making, planning, implementation and assessment, as regards climate action" (ibid, p.14).

The report further acknowledges the intersectional nature of the type of discrimination that affects women's and girls' ability to address climate change impacts by highlighting:

"Climate change affects women, men, boys and girls in different ways. Entrenched and systemic discrimination canlead to gender-differentiated impacts of climate change with respect to health, food security, livelihoods, and human mobility, among other things. Intersectional forms of discrimination can further increase the vulnerability of some women and girls to climate change, while the exclusion of women from climate action inhibits its effectiveness and further exacerbates climate harms. The meaningful, informed, and effective participation of ***women with diverse backgrounds*** *in relevant decision-making processes lies at the heart of a rights-based, gender-responsive approach to climate action. This inclusive approach is not only a legal, ethical and moral obligation; it will also make climate action more effective"* (ibid, p.18).

The GP of the Adaptation Fund takes those findings to heart by starting out with its key objective to uphold women's rights as universal human rights, and a recent assessment of the GP stated that, "*Given its strong partnership with its implementing partners, its flexibility of approaches to ensure compliance with its mandated policies and a focus on the human dignity of its beneficiaries, the Fund is well positioned to advance its GP beyond a narrow binary approach towards a recognition of broader gender-related intersectionality in its operations"* (Assessment Report on Progress of Implementation of GP and GAP, p.37).

The complimentary links between human rights frameworks and intersectionality are evidenced through their shared aims to identify privilege, confront power inequalities and work towards justice.[150] Combining these approaches have been also identified as crucial for addressing the structural power imbalances that inhibit progress towards the UN Sustainable Development Goals (SDGs): *"Adoption of intersectional analyses and methodologies into policies and enforceable legislation is a critical step for the promotion of*

[148] UN Women and UNFCCC. (2016). Implementation of Gender-Responsive Climate Action in the Context of Sustainable Development. Report from Expert Group Meeting. 40p. https://unfccc.int/files/gender_and_climate_change/application/pdf/egmreport.pdf

[149] OHCHR. (2019). Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women, Report of the Office of the United Nations High Commissioner for Human Rights, pp.19. https://undocs.org/A/HRC/41/26

[150] Colin Clark, Dee Matthew & Vicki Burns (2018) Power, privilege and justice: intersectionality as human rights?, *The International Journal of Human Rights*, 22:1, 108-126, https://doi.org/10.1080/13642987.2017.1390333

gender equity and the empowerment of women and girls without which sustainable development will not be possible."[151]

Future Directions

While strides are being made towards organizations' consideration and implementation of intersectionality, the results of the desk review highlight several gaps in analysis and what is not yet known.

Although gender mainstreaming is widely practiced in adaptation-relevant sectors and interventions, the extent to which intersectional approaches to gender mainstreaming are being applied in interventions and project-level contexts is unclear. Although there appears to be a growing evidence base on instances where intersectional gender analysis is used in practice in adaptation-relevant interventions, documentation on the outcomes and impacts on the use of intersectional approaches to gender mainstreaming in applied contexts (e.g., at project/programme level) presents a large gap in the current literature. Furthermore, there is a lack of empirical studies that have used comparative cases to weigh the relative advantages of intersectional versus conventional gender mainstreaming approaches. While such studies would be helpful in assessing the outcomes of using intersectional approaches, the value addition of going beyond conventional binary approaches is embedded in the concept of intersectionality itself: inclusion. The process of incorporating intersectionality in adaptation-relevant interventions is ultimately a pathway towards greater inclusivity. Moreover, in adopting a human-rights based framing that highlights that basic human rights are indivisible, and cannot be withheld on the basis of sex, age, ethnicity, class, etc., intersectional approaches facilitate actions towards justice across different and compounding intersectional groups and identities.

From a methodological perspective, the desk review revealed that the vast majority of projects and studies have looked at single intersections of social identity (e.g., gender and age), as opposed to taking a more systematic approach that also considers the broader social and cultural structures that mediate people's ability to adapt to climate change. While drawing attention to the unique and potentially different experiences of women and youth (and how these experiences differ from elder men, who are traditionally the key participants and beneficiaries of adaptation-relevant interventions) is important in providing a space for their voices to emerge and be responded to, the homogenization of these categories does not capture the intra-gender differences between these social groups, which could hinder progress towards equality or create inequitable development outcomes. This points to a lack of appropriate methodologies and tools for identifying and understanding the intersection between different inequality factors (at both individual and structural levels) affecting people's ability to prepare for, cope with, and respond to climate change.[152] The knock-on effects of this dearth are that data disaggregated by sex, age,

[151] Ryder S., Boone K. (2019). Intersectionality and Sustainable Development. In: Leal Filho W., Azul A., Brandli L., Özuyar P., Wall T. (eds) Gender Equality. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-70060-1_51-1 (p.8)

[152] Lovell, Emma and Getrude Lung'hai. (2019). Building resilience for all: Intersectional approaches for reducing vulnerability to natural disasters and climate change: Findings from Kenya. BRACED report, 8pp. https://cdn.odi.org/media/documents/12931.pdf

ethnicity, disability and other socio-economic factors is rarely collected systematically, leading to a gap in monitoring and evaluation processes and policy formulation that would otherwise be informed by these data (ibid).

Thus, future directions on intersectional approaches to gender mainstreaming in adaptation-relevant interventions should address filling both the methodological and practice-side gaps that currently exist.

Recommendations

This section provides recommendations for policy makers on how intersectional approaches could be applied to gender mainstreaming in developing, implementing, and monitoring adaptation-relevant interventions. The implications of the case study findings and broader literature are synthesized to provide methodological and sector-specific recommendations were relevant.

Methodological recommendations:

- Qualitative discussion tools can contribute to effective planning, problem identification, and prioritization within intersectional approaches to gender mainstreaming in adaptation-relevant interventions. Using gender analysis tools (such as those from the Pamoja toolkit in Case Study 1) aids discussion around the community power dynamics that reinforce vulnerability, the challenges and adaptation priorities for different intersectional/intergenerational groups, and what opportunities exist for increasing climate resilience across different populations. These activities provide the basis for planning at local level, which may contribute to gender-transformative adaptation responses that are representative of the different needs and aspirations among different intersectional groups.
- Case study 2 highlighted the current gap in GESI approaches to consider the intersectional differentiation within the homogenous clusters of "women" and "marginalized groups" (intra-categorical intersectional analysis). Beyond examining the intersecting inequalities along gender, caste, and ethnicity, future adaptation-relevant work should also consider family structure differences (e.g., intra-household positioning of mothers or daughters-in law, widowers, etc.) in creating inclusive and responsive interventions that target, benefit, and empower people in all of their diversity. This would also involve reserving spaces of representation for women of different generations/positions within the household and from different communities to create more inclusive quotas (not as a stand-alone strategy, but an integrated effort towards inclusion). During the planning phase, interventions should identify and assess the potentially differential vulnerability that ethnic minorities face, particularly among ethnic women of different ages and positions within their communities. To achieve this, interventions should prioritize participatory research to investigate these intersectional challenges and budget funds and time accordingly to collect gender disaggregated data along the relevant intersectional groups (Case study 3).
- Case study 4 points towards how an intersectional framework could be put in place to periodically assess who are the most vulnerable, what are their vulnerabilities, what are the differing needs, what are the challenges, and when and how assistance could be made available in humanitarian interventions in emergencies. Since intersections are not static, but fluid and shifting, especially given changing and dynamic contexts, it is not enough to have an intersectional framework applied once or initially. Rather, intersectional assessments need to be iterative and periodically repeated, with updated findings.

- Case Study 5 illustrated how using specific evaluation questions aimed at capturing the voices of women, men, and gender-non-binary people from different communities and social identities can help towards a standardized application of an intersectional methodology.

Sector-specific recommendations:

The adaptation-relevant sectors canvassed - agriculture and food security, water management, health, forests and forest management, and disaster risk reduction – are highly interconnected, with changes in one sector having rippling effects into other sectors (e.g., lack of rainfall and water scarcity coupled with lack of inclusive water management and climate-information services will affect forest and natural resource harvesting, which impacts agricultural productivity, household food security and related health-outcomes). In light of these overlaps, holistic approaches to incorporating intersectionality across the project/programme cycle are recommended to engage in multi-pronged, cross-sectoral efforts to ensure there are no missed opportunities for enhancing gender equality in climate adaptation and resilience strategies. Given the fluid and evolving ways in which gender intersects with other social categories and broader structural drivers of change, intersectional approaches in adaptation-sectors should be iterative and include participatory forms of data collection, monitoring, and evaluation.

Recommendations towards developing and designing interventions/projects and programmes:

- To ensure stakeholder engagement, it is indispensable to map the key people (i.e., sub-groups of women, men, and non-binary people) who should be involved throughout the intervention cycle. It is also critical to ensure that actors are engaged early and are provided with the opportunity to shape the findings and attend intervention-related events: for instance, Technical Working Groups should be established with the relevant stakeholders and policymakers.
- Gender analysis and consideration of how different social stratifiers can shape population needs is often a new concept to many key stakeholders. Creating dissemination meetings, not just as a way to disseminate findings but as a key strategy to strengthen capacity of stakeholders to be able to conduct and interpret intersectional gender analysis, can contribute to understandings among stakeholders. Making these meetings as participatory as possible can also contribute to increased uptake of findings.
- Thought must be given to which groups of women and which groups of men (based on their ethnicity, social status/economic class, and age) might be excluded based on these intersecting identities, and whose voices need to be empowered through targeted actions to have them represented based on their role in project-relevant activities. For example, if a project identifies that a specific group of women, such as women from indigenous and/or natural resource-dependent communities, are primarily responsible for safeguarding natural resources, then the project must address the particular barriers that specifically hinder them from fully participating and benefiting from relevant interventions.
- Building and supporting methodologies and tools to better capture the complexities of intersecting inequalities and means to identify and measure differences between groups

is important, so that policymakers and practitioners can devise locally appropriate solutions to build resilience to natural hazards and climate change.[153] There are several existing gender frameworks that can be used as analytical guides to this end. For example, the "Gender as a Power Relation and Driver of Inequality"[154] framework that investigates both 'what constitutes gendered power relations' and 'how power is negotiated and changed', could be adapted for intersectional analysis. This framework organizes gender power relations into four categories: who has what (access to resources - (education, information, skills, income, employment, services, benefits, time, space, social capital etc.); who does what (the division of labour, roles and everyday practices); how values are defined (social norms, ideologies, beliefs and perceptions) and who decides (rules and decision-making, both formal and informal). Critical thinking towards gender transformative change related to inequitable gender power relations is embedded in the framework by also investigating how power is negotiated and changed at the individual/people level (critical consciousness, acknowledgement/lack of acknowledgement, agency/apathy, interests, historical and lived experiences, resistance, or violence) and structural/environment (Legal and policy status, institutionalization within planning and programmes, funding, accountability mechanism).

Recommendations towards implementation of interventions/projects and programmes:

- Stakeholder engagement is an iterative process as a core part of implementation. Meaningfully including affected sub-groups of women, men, and gender diverse groups in project implementation oversight, advisory bodies, management teams (such as the water management or forest management units) would provide a platform for their voices and agency and ensure that the needs and perspectives of their respective sub-groups are taken into account equitably and their respective capabilities engaged adequately.
- Actions should center on providing governance and management structures with the goal of safeguarding equal representation, agency, and voice in project implementation of all participants and beneficiaries. This requires developing social inclusion strategies focused on addressing gender inequalities that will increase the leadership and engagements of all people, regardless of their socioeconomic background, ethnicity, minority status, or sexual orientation, in order to move towards implementing gender-transformative agendas and responses to climate change.
- The importance of systematic data collection, disaggregated by sex and gender identity and then further differentiated by age, economic status, ethnicity, caste, and disability (as a minimum) cannot be overstated in order to identify marginalized groups and gendered

[153] Lovell and Lung'hai, 2019, p.6

[154] World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. p.35-37. https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

sub-groups and make their different needs and capacities in general more visible to policy makers and concretely the analytical basis for targeted adaptation interventions.

Recommendations towards monitoring and evaluation interventions/projects and programmes:

- Participatory monitoring should be used as a core strategy. Commonly excluded and particularly affected groups and gendered sub-groups of potential beneficiaries should play a role in determining how well the project is going and whether it is meeting their specific needs and integrating their existing capabilities while also providing targeted capacity-building to reduce differentiated vulnerabilities.
- Independent evaluations (mandatory for most publicly financing adaptation projects) should be conducted, ensuring that evaluators have the necessary gender expertise, including with an understanding of gender intersectionality.
- For the results-based management of adaption interventions mandated by many funding providers, project and programmes developers should select and apply a range of quantitative and qualitative gender indicators to measure progress, outcomes, and social impacts.[155] Areas of measurement could include:
  - Measuring added social value to a project or programme's broader adaptation impact through its contribution to gender equality, women's empowerment, and social inclusion; and
  - Measuring activity outcomes that target and address gender and social gaps. These may include economic opportunities; voice, agency, and leadership; and addressing time poverty.
  - Monitoring both temporal and non-temporal forms of intersectional differentiation. For example, 'fluid' categories based on age, wealth status, marital status should be considered alongside less-fluid categories of caste, ethnicity, and religion.

[155] See also: Gender Equality and Social Inclusion (GESI) Mainstreaming in DFID's Private Sector Development Programme in the DRC A description of the programme's approach and lessons learnt.
https://beamexchange.org/uploads/filer_public/3e/ed/3eed076e-d4a6-49c5-90a2-293a53d22b25/gesi_mainstreaming_learning_brief_v40_compressed.pdf

Conclusions

"Climate change affects women, men, boys and girls in different ways. Entrenched and systemic discrimination can lead to gender-differentiated impacts of climate change with respect to health, food security, livelihoods, and human mobility, among other things. Intersectional forms of discrimination can further increase the vulnerability of some women and girls to climate change, while the exclusion of women from climate action inhibits its effectiveness and further exacerbates climate harms. The meaningful, informed, and effective participation of women with diverse backgrounds in relevant decision-making processes lies at the heart of a rights-based, gender-responsive approach to climate action. This inclusive approach is not only a legal, ethical and moral obligation; it will also make climate action more effective" (OHCHR 2019, p.18).

Engaging in analyses of multi-dimensional and intersecting gendered vulnerabilities to climate change is essential in risk management for marginalized and vulnerable groups (such as children, women and girls, the elderly, indigenous people, tribal groups, displaced people, refugees, people living with disabilities, and people living with HIV/AIDS). At the same time, intersectional approaches help in moving from a singular focus on risk management towards more gender-responsive, and even gender-transformative approaches.

In recognizing, addressing, and supporting people's differentiated agency and resilience (needs), intersectional approaches have the potential to facilitate moving beyond a narrow focus on gender safeguards and prevention of gendered harm to pro-actively addressing and taking action on how adaptation measures can promote gender equality and the empowerment and agency of women and girls. Strategies that link intersectionality with human rights frameworks will help accelerate the identification of privilege, confront power inequalities and work towards securing gender justice.

As the study's substantive findings indicate, there are clear case study examples that highlight the applicability and feasibility of intersectional approaches in adaptation-relevant interventions. Thus, while detailed frameworks and standardized methodological guidance are currently lacking, this should not be an excuse for projects/programmes to not start action towards intersectional approaches to gender mainstreaming. Acknowledging that engaging with intersectionality is a process rather than an endpoint, even incremental steps towards incorporating intersectionality that go beyond static, homogenous/binary conceptions of gender will lead to more inclusive and equitable interventions.

To inform future directions on intersectional approaches to gender mainstreaming in adaptation-relevant interventions, projects/programmes are encouraged to document their lessons learned and best practices on how to apply intersectional approaches throughout the project/programme cycle. Documentation of these 'learning by doing' strategies will help generate valuable knowledge and experience that can inform methodological innovations and practical implementation/application best practices that can be taken forward into future interventions.

5. References List

A

Agarwal, B. (2001). Participatory exclusions, community forestry, and gender: An analysis for South Asia and a conceptual framework. *World development*, 29(10), 1623-1648.

Anderson, A. (2018). Resilience in Action: Gender Equity and Social Inclusion. Produced by Mercy Corps as part of the Resilience Evaluation, Analysis and Learning (REAL) Associate Award, p.2. https://www.mercycorps.org/sites/default/files/2019-12/REAL_Resilience_in_Action.pdf

Arora, S. (2020). Intersectional vulnerability in post disaster contexts: lived experiences of Dalit women after the Nepal earthquake, 2015. *Disasters*. https://doi.org/10.1111/disa.12471

B

Badstue L, Petesch P, Farnworth CR, Roeven L, and Hailemariam M. (2020). Women Farmers and Agricultural Innovation: Marital Status and Normative Expectations in Rural Ethiopia. *Sustainability*, 12(23):9847. https://doi.org/10.3390/su12239847

Behal, Anuj. (11 January 2021). How climate change is affecting the LGBTQIA+ community. *DownToEarth.* https://www.downtoearth.org.in/blog/environment/how-climate-change-is-affecting-the-lgbtqia-community-74988

Bennett, L., Sijapati, B., and Thapa, D. (2013). *Gender and social exclusion in Nepal: Update*. Himal Books.

Burg, M. van der. (2019). 'Change in the Making': 1970s and 1980s building stones to Gender Integration in CGIAR Agricultural Research, in: Gender, Agriculture and Agrarian Transformations, Carolyn Sachs (ed.), Routledge, 35-57.

C

Carr, E. R., and M. C. Thompson. (2013). Gender and climate change adaptation in agrarian settings. Report prepared for the United States Agency for International Development. pp. 76.

Center for International Forestry Research (CIFOR). (2018). Intersectionality: What does it mean and how can we better engage with it? PowerPoint presentation, CIFOR Knowledge repository. https://www.cifor.org/knowledge/slide/10123/

Chaplin, D., Twigg, J., and Lovell, E. (2019). 'Intersectional approaches to vulnerability reduction and resilience building: a scoping study'. *Resilience Intel*. London: BRACED and OD. https://odi.org/en/publications/intersectional-approaches-to-vulnerability-reduction-and-resilience-building/

Choo HY and Ferree MM (2010). Practicing intersectionality in sociological research: a critical analysis of inclusions, interactions, and institutions in the study of inequalities. *Sociological Theory* 28: 129–149. https://doi.org/10.1111/j.1467-9558.2010.01370.x

CIFOR [Center for International Forestry Research]. (2015). At the intersection of inequities – lessons learned from CIFOR's work on gender and climate change adaptation in West Africa. Gender climate brief no. 4. Center for International Forestry Research (CIFOR), Bogor, Indonesia.

CIGR [Clayman Institute for Gender Research]. (2017). Why gender research matters now more than ever. January 30, 2017. Available at: http://gender.stanford.edu/news/2017/why-gender-researchmatters-now-more-ever

Clark, C., Dee Matthew and Vicki Burns. (2018). Power, privilege and justice: intersectionality as human rights?, *The International Journal of Human Rights*, 22:1, 108-126, https://doi.org/10.1080/13642987.2017.1390333

Clement et al. (2019). From women's empowerment to food security: Revisiting global discourses through a cross-country analysis, *Global Food Security*, vol. 23, pp.160-172. https://doi.org/10.1016/j.gfs.2019.05.003

Clendenning J., Elias M., and Sijapati Basnett B. (2019). 'At the intersection of gender and generation: Engaging with 'youth' in the CGIAR Research Program on Forests, Trees and Agroforestry', FTA Brief no. 3, Center for International Forestry Research (CIFOR). https://gender.cgiar.org/publications-data/intersection-gender-and-generation-engaging-youth-cgiar-research-program-forests

Colfer, C., Sijapati Basnett B., and Ihalainen, M. (2018). Making Sense of 'Intersectionality': A Manual for Lovers of People and Forests. Bogor: Center for International Forestry Research (CIFOR). https://www.cifor.org/knowledge/publication/6793/

Conti, V. (2017). *Gendered Crops from an Intersectional Perspective: Which Factors Influence Women's Dry-Season Farming Choices?* (Master's thesis). https://dspace.library.uu.nl/handle/1874/352955

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum* 140: 139–167. https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf

D

Djoudi, H. (2015). At the intersection of inequities: lessons learned from CIFOR's work on gender and climate change adaptation in West Africa. *Gender Climate Brief*, No. 4, 4pp. https://www.cabdirect.org/cabdirect/abstract/20183057156

E

EES, ReLAC. (2015). Guide to including a gender + perspective in VOPEs: innovating to improve institutional capacities. https://evalpartners.org/sites/default/files/documents/evalgender/Gender_Guide_def_en.pdf

Einarsdóttir, T., and Thorvaldsdóttir, T. (2007). Gender Equality and the Intersectional Turn. *Kvinder, Køn &Amp; Forskning*, (20-31). https://doi.org/10.7146/kkf.v0i1.27936

Elias, M., Hummel, S. S., Basnett, B. S., & Colfer, C. J. (2017). Gender Bias Affects Forests Worldwide. *Ethnobiology Letters*, *8*(1), 31–34. https://doi.org/10.14237/ebl.8.1.2017.834

F

FAO. (2016). A gender-responsive approach to disaster risk reduction (DRR) planning in the agriculture sector: Guidance for supporting rural women and men to build resilience in the face of disasters. Rome. http://www.fao.org/resilience/resources/resources-detail/en/c/1114431/

FAO. (2019). Guidance note on gender-sensitive vulnerability assessments in agriculture. Rome. http://www.fao.org/3/ca7088en/ca7088en.pdf

G

Global Environment Facility (GEF). (2018). Guidance to Advance Gender Equality in GEF Projects and Programs. p.14 https://www.thegef.org/sites/default/files/publications/GEF%20Guidance%20on%20Gender.pdf

Godfrey, P. (2012). Introduction: Race, Gender & Class and Climate Change. *Race, Gender & Class, 19*(1/2), 3-11. Retrieved June 17, 2021, from http://www.jstor.org/stable/43496857

Gonda, N. (2017). Rural Masculinities in Tension: Barriers to Climate Change Adaptation in Nicaragua. *RCC Perspectives,* (4), 69-76. Retrieved June 17, 2021, from https://www.jstor.org/stable/26241457.

Green Climate Fund (GCF). (2018). GCF Gender Equality and Social Inclusion Policy and Action Plan 2018–2020, 28 pp. https://www.greenclimate.fund/sites/default/files/document/gcf-b19-25.pdf

Greene, S, Pertaub, D, McIvor, S, Beauchamp, E and Philippine, S. (2020). Understanding local climate priorities: applying a gender and generation focused planning tool in mainland Tanzania and Zanzibar. IIED, London. http://pubs.iied.org/10210IIED

Guarascio, F., Gunewardena, N., Holding-Anyonge, C., Kaaria, S., Stloukal, L., Sijapati Basnett, B., Colfer, C.J.P., Mwangi, E., Powell, B., Shackleton, S. and Degrande, A. (2013). Forest, food security and gender: linkages, disparities, and priorities for action. http://www.fao.org/3/mg488e/mg488e.pdf

H

Hankivsky, O., and Mussell, L. (2018). Gender-Based Analysis Plus in Canada: Problems and Possibilities of Integrating Intersectionality. *Canadian Public Policy / Analyse De Politiques*, 44(4), 303-316. https://doi.org/10.3138/cpp.2017-058

Hunting, G., and Hankivsky, O. (2020). Cautioning Against the Co-Optation of Intersectionality in Gender Mainstreaming. *Journal of International Development*, *32*(3), 430-436. https://doi.org/10.1002/jid.3462

Huyer, S. (2016). Closing the gender gap in agriculture. *Gender, Technology and Development*, 20, 106-116. https://journals.sagepub.com/doi/pdf/10.1177/0971852416643872

I

International Food Policy Research Institute (IFPRI). (14 March 2019) Considering gender in irrigation: Meeting the challenges women farmers face in technology adoption, blog. https://www.ifpri.org/blog/considering-gender-irrigation-meeting-challenges-women-farmers-face-technology-adoption

International Institute for Environment and Development (IIED). 2020. IIED Gender Equality Policy. 3pp. https://pubs.iied.org/g04462

International Institute for Environment and Development (IIED). (6 January 2021). Exploring intersectionality: what does it look like for IIED and our partners? https://www.iied.org/exploring-intersectionality-what-does-it-look-for-iied-our-partners

International Institute for Environment and Development (IIED). (6 January 2021). Exploring intersectionality: what does it look like for IIED and our partners? https://www.iied.org/exploring-intersectionality-what-does-it-look-for-iied-our-partners

International Union for Conservation of Nature (IUCN). (21 March 2021). The role of women in water governance, blog. https://www.iucn.org/news/environmental-law/202103/role-women-water-governance

International Union for Conservation of Nature (IUCN), Disaster and gender statistics fact sheet. https://www.unisdr.org/files/48152_disasterandgenderstatistics.pdf

J

K

Kakkar, Deepti. (2020). Caste, Gender and Jati: An Intersectional Analysis Aimed at Better Targeting Poverty Alleviation and Women's Empowerment in Bihar, Orissa and Tamil Nadu (English). South Asia Agriculture and Rural Growth Impact Note; no. 7 Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/687101590647049640/Caste-Gender-and-Jati-An-Intersectional-Analysis-Aimed-at-Better-Targeting-Poverty-Alleviation-and-Women-s-Empowerment-in-Bihar-Orissa-and-Tamil-Nadu

Kohlitz, J., Megaw, T., Chong, J., Sugi, F., Palaipeni, P., Emanual, Y., Brikman, H., Joman, Y., Landa, S., Talan, J., Leong, L., Kelleher, J. and Gero A. (2020). Climate Change Response for Inclusive WASH: A guidance note for Plan International Indonesia. Prepared by ISF-UTS for Plan International Indonesia.

Kohltz, J., Leahy, C., Chong, J., et al. (2020). Climate change response for inclusive WASH: A guidance note for WaterAid Timor-Leste. Prepared by ISF-UTS for WaterAid Timor-Leste. https://www.uts.edu.au/sites/default/files/2021-01/Guidance%20Note%20-%20CCRIW%20-%20TL.pdf

L

Langat, A. (2021). Criminalization and stigma limit LGBTQ access to health care in Africa, DEVEX blog, updated May 5, 2021. https://www.devex.com/news/criminalization-and-stigma-limit-lgbtq-access-to-health-care-in-africa-99725

LEAF (Women's Legal Education & Action Fund Inc.). (2016). Re: closing the gender wage gap. Letter to the Gender Wage Gap Strategy Steering Committee. January 22, 2016. Available at: http://www.leaf.ca/wp-content/uploads/2016/02/2016-01-22-LEAF-Submission-Gender-Wage-Gap-Consultation.pdf

Leahy, C., Kohlitz, J., and Chong, J. (2020). Socially-inclusive Responses to Climate Change Impacts on WASH: Case Study in Asumanu, Liquiçá , Timor-Leste. Prepared for WaterAid Timor-Leste by ISFUTS. https://www.uts.edu.au/sites/default/files/2021-01/Case%20Study%20CCRIW%20-%20TL.pdf

Leder, S., Floriane Clement and Emma Karki. (2017). Reframing women's empowerment in water security programmes in Western Nepal, *Gender & Development*, 25:2, 235-251, http://dx.doi.org/10.1080/13552074.2017.1335452

Lovell, E., Twigg, J., and Lung'ahi, G. (2019). *Building resilience for all: intersectional approaches for reducing vulnerability to natural hazards in Nepal and Kenya*. London: ODI. Link to full report: https://cdn.odi.org/media/documents/12697.pdf

Luvuno, Z. P., Ncama, B., and Mchunu, G. (2019). Transgender population's experiences with regard to accessing reproductive health care in Kwazulu-Natal, South Africa: A qualitative study. *African journal of primary health care & family medicine*, *11*(1), 1-9. http://dx.doi.org/10.4102/phcfm.v11i1.1933

M

Madrigal-Borloz, V. (2020). Report to the UN General Assembly: The Impact of the COVID-19 Pandemic on the Human Rights of LGBT Persons. United Nations Independent Expert on protection against violence and discrimination based on Sexual Orientation and Gender Identity - IE SOGI. https://www.ohchr.org/Documents/Issues/SexualOrientation/ImpactCOVID19LGBTpersons.pdf

McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of women in culture and society*, *30*(3), 1771-1800. https://doi.org/10.1086/426800

Mehar, M. and McDougall, C. (2017). Methods and tools for gender analysis in FISH: A preliminary consolidation and reference guide. Penang, Malaysia: CGIAR Research Program on Fish Agri-Food Systems. Internal document. https://www.researchgate.net/publication/342599754_Methods_and_tools_for_gender_analysis_in_FISH_A_preliminary_consolidation_and_reference_guide

Megaw, T., Kohlitz, J., Gero, A. and Chong, J. (2020). Understanding and responding to climate change impacts in inclusive WASH programs – a conceptual framework – Learning Paper. Institute for Sustainable Futures, University of Technology Sydney, p.4. https://www.uts.edu.au/sites/default/files/2021-01/CCRIW%20Conceptual%20framework.pdf

Megaw, T., Kohlitz, J., Chong, J. (2020). Socially-inclusive Responses to Climate Change Impacts on WASH: Case Study in Manggarai, Flores, Indonesia. Prepared for Plan International Indonesia by ISF-UTS. https://www.uts.edu.au/sites/default/files/2021-01/Case%20Study%20CCRIW%20-%20Indonesia.pdf

Mohanty, C. T. (2003). Feminism without borders. Duke University Press. https://www.dukeupress.edu/feminism-without-borders

Müller, A. (2017). Scrambling for access: availability, accessibility, acceptability and quality of healthcare for lesbian, gay, bisexual and transgender people in South Africa. *BMC international health and human rights*, *17*(1), 1-10. https://link.springer.com/content/pdf/10.1186/s12914-017-0124-4.pdf

Mungai C., Opondo M., Outa G., Nelson V., Nyasimi M., and Kimeli P., (2017). Uptake of Climate-Smart Agriculture through a Gendered Intersectionality Lens: Experiences from Western Kenya, Climate Change Management 587-601. https://link.springer.com/chapter/10.1007/978-3-319-49520-0_36

N

Nelson, S. and Hill, C, 2019. Gender in adaptation planning for the agriculture sectors: Guide for trainers. Rome. *http://www.fao.org/3/ca7088en/ca7088en.pdf*

Ngum, F., and Bastiaensen, J. (2021). Intersectional Perspective of Strengthening Climate Change Adaptation of Agrarian Women in Cameroon. In African Handbook of Climate Change Adaptation (pp. 2169-2191). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-45106-6_213

Nightingale, A. J. (2011). Bounding difference: Intersectionality and the material production of gender, caste, class and environment in Nepal. *Geoforum*, 42(2), 153–162. https://doi.org/10.1016/j.geoforum.2010.03.004

Nimble, N. (2021). Disaster and Intersectional Vulnerabilities: Loss of Livelihoods among Female Domestic Workers during Covid-19 and its Communalisation. *Journal of Comparative Literature and Aesthetics*, *44*, 11-22. http://jcla.in/wp-content/uploads/2021/01/JCLA-44.1-Spring-2021_Neha-Nimble.pdf

O

OHCHR. (2019). Analytical study on gender-responsive climate action for the full and effective enjoyment of the rights of women, Report of the Office of the United Nations High Commissioner for Human Rights, pp.19. https://undocs.org/A/HRC/41/26

Olsson, L., et al. (2014). Livelihoods and poverty. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 793-832. https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap13_FINAL.pdf

P

Pehou, C., Djoudi, H., Vinceti, B., and Elias, M. (2020) Intersecting and dynamic gender rights to néré, a food tree species in Burkina Faso. *Journal of Rural Studies* Online first paper (13 March 2020) https://doi.org/10.1016/j.jrurstud.2020.02.011

Pertaub, D., Greene, S., Sutz, P., Kigashe, A., Clamian, T. and Alakara, S. (2020) Pamoja voices climate-resilience planning toolkit. To support inclusive climate-resilient planning for rural communities. IIED, London. http://pubs.iied.org/10204IIED

Petesch, P., Badstue, L. B., and Prain, G. (2018). Gender norms, agency, and innovation in agriculture and natural resource management: The GENNOVATE methodology, p.6. https://gender.cgiar.org/wp-content/uploads/2018/02/GENNOVATE-Methodology_Feb2018_FINAL.pdf

Q

R
Rankoana, S. A. (2016). Rainfall scarcity and its impacts on subsistence farming: The role of gender and religious rituals in adaptation to change. *Agenda*, 30(3), 124-131. https://doi.org/10.1080/10130950.2016.1259867

Ravera, F., Martín-López, B., Pascual, U., and Drucker, A. (2016). The diversity of gendered adaptation strategies to climate change of Indian farmers: A feminist intersectional approach. *Ambio*, *45*(3), 335-351. https://link.springer.com/article/10.1007/s13280-016-0833-2

Rezwana, N. (2017). *Disasters, gender, and access to healthcare: women in Coastal Bangladesh*. Routledge.

Ryder S., Boone K. (2019). Intersectionality and Sustainable Development. In: Leal Filho W., Azul A., Brandli L., Özuyar P., Wall T. (eds) Gender Equality. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-70060-1_51-1 (p.8)

S
Schofield, D., and Gubbels, F. (2019). Informing notions of climate change adaptation: a case study of everyday gendered realities of climate change adaptation in an informal settlement in Dar es Salaam. *Environment and Urbanization*, 31(1), 93-114. https://doi.org/10.1177/0956247819830074

Shrestha, G., and Clement, F. (2019). Unravelling gendered practices in the public water sector in Nepal. *Water Policy*, 21(5), 1017-1033. https://doi.org/10.2166/wp.2019.238

SSGR [Swedish Secretariat for Gender Research]. (2015). Gender mainstreaming with an intersectional perspective. Available at: http://www.includegender.org/wp-content/uploads/2015/06/Gender-Mainstreaming-with-an-Intersectional-Perspective-pdf

Sverdlik, A. (2021). Gender and intersectionality in action research. IIED, London. https://pubs.iied.org/20036IIED

T
Tanjeela, M., and Rutherford, S. (2018). The Influence of Gender Relations on Women's Involvement and Experience in Climate Change Adaptation Programs in Bangladesh. *SAGE Open*, *8*(4), 1-9. https://doi.org/10.1177/2158244018812620

Tavenner, K. (2016). A feminist political ecology of indigenous vegetables in a South African protected area community. PhD dissertation, Department of Rural Sociology and Women's Studies. University Park, PA: The Pennsylvania State University.

Tavenner, K. and Crane, T.A. (2019). Beyond "women and youth": Applying intersectionality in agricultural research for development. Outlook on Agriculture 48(4): 316–325 https://doi.org/10.1177/0030727019884334

The Gender Practitioners Collaborative. (2017). Minimum Standards for Mainstreaming Gender Equality. 24pp. (p.2) https://www.fhi360.org/sites/default/files/media/documents/minimum-standards-mainstreaming-gender-equality.pdf

The World Bank, Food and Agricultural Organization, and International Fund for Agricultural Development. (2009). Gender in Agriculture Sourcebook. Washington DC: The World Bank, ISBN 978-0-8213-7587-7.

Thompson-Hall, M., Carr, E. R. and Pascual, U. (2016). Enhancing and expanding intersectional research for climate change adaptation in agrarian settings. *Ambio*, 45(Suppl 3): 373–382. 10.1007/s13280-016-0827-0

Thompson-Hall, M. (2016). Land Restoration, Agriculture, and Climate Change: Enriching Gender Programming Through Strengthening Intersectional Perspectives. In Land Restoration (pp. 421-430). Academic Press. https://www.sciencedirect.com/science/article/pii/B9780128012314000288

Tolhurst, R., Leach, B., Price, J., Robinson, J., Ettore, E., Scott-Samuel, A., Kilonzo, N., Sabuni, L.P., Robertson, S., Kapilashrami, A. and Bristow, K. (2012). Intersectionality and gender mainstreaming in international health: Using a feminist participatory action research process to analyse voices and debates from the global south and north. *Social Science & Medicine*, *74*(11), pp.1825-1832. https://doi.org/10.1016/j.socscimed.2011.08.025

U

UN [United Nations]. (2016). The sustainable development goals report 2016. Available at: https://unstats.un.org/sdgs/report/2016/The%20Sustainable%20Development%20Goals%20Report%202016.pdf

UNDP [United Nations Development Programme]. (2014). Fast-forwarding gender equality and women's empowerment? Reflections on Measuring Change for UNDP's Thematic Evaluation on Gender Mainstreaming and Gender Equality 2008–2013. Available at: http://web.undp.org/evaluation/documents/articles-papers/occasional_papers/Occasional%20Paper_Gender_Pittman%20.pdf

UNFCCC (2021). National Adaptation Programmes of Action. https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/introduction

UNHCR. (2016). Reproductive health in refugee situations. Available at: http://www.unhcr.org/publications/operations/3bc6ed6fa/reproductive-health-refugee-situations-inter-agency-fieldmanual-unhcrwhounfpa.html

UNHCR. (2018). Achieving gender equality and addressing sexual and gender-based violence in the global compact on refugees. Available at: http://www.unhcr.org/5a72f2eb7

UNICEF. (2017). Gender Equality. Glossary of Terms and Concepts, p.6; available at: https://www.unicef.org/rosa/media/1761/file/Gender%20glossary%20of%20terms%20and%20concepts%20.pdf.

UNICEF. (2017). Terms of reference. GenderPro: credentialing & capacity building program. Available at: https://www.ungm.org/Public/Notice/63446

UN Women (2021). Training Centre Gender Equality Glossary; https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey&sortorder=asc&fullsearch=0&page=0.

UN Women (2018). Turning Promises into Action. Gender Equality in the 2030 Agenda for Sustainable Development, Box 1.2, p.31; available at: https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2018/sdg-report-gender-equality-in-the-2030-agenda-for-sustainable-development-2018-en.pdf?la=en&vs=4332.

UN Women. (2017). Virtual dialogue on addressing intersectionality in training for gender equality: a conversation for gender trainers. Final Report. UN Women Training Centre, NY.

UN Women and UNFCCC. (2016). Implementation of Gender-Responsive Climate Action in the Context of Sustainable Development. Report from Expert Group Meeting. 40p. https://unfccc.int/files/gender_and_climate_change/application/pdf/egmreport.pdf

USAID/West Africa Biodiversity and Climate Change (WA BiCC). (2018). Gender Equality and Social Inclusion (GESI) Guidelines, 2nd Labone Link, North Labone, Accra – Ghana. 13p. https://pdf.usaid.gov/pdf_docs/PA00WQDN.pdf

V

Van Aelst, K., and Holvoet, N. (2016). Intersections of gender and marital status in accessing climate change adaptation: Evidence from rural Tanzania. *World development*, 79, 40-50. https://doi.org/10.1016/j.worlddev.2015.11.003

Vélez, A. C. G., Coates, A., Garcia, V. D., and Wolfenzon, D. (2020). Gender equality and health equity: strategic lessons from country experiences of gender mainstreaming in health. *Revista Panamericana de Salud Pública*, *44*. https://doi.org/10.26633/RPSP.2020.129

Vickery, J. (2018). Using an intersectional approach to advance understanding of homeless persons' vulnerability to disaster. *Environmental Sociology*, 4(1), 136-147. https://doi.org/10.1080/23251042.2017.1408549

Vinyeta, Kirsten; Powys Whyte, Kyle; and Lynn, Kathy. (2015). Climate change through an intersectional lens: gendered vulnerability and resilience in indigenous communities in the United States. Gen. Tech. Rep. PNW-GTR-923. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 72 p. https://www.fs.fed.us/pnw/pubs/pnw_gtr923.pdf

W

Wood, A.L., Ansah, P., Rivers, L., and Ligmann-Zielinska, A. (2019). Examining climate change and food security in Ghana through an intersectional framework. *The Journal of Peasant Studies*, 1-20. https://doi.org/10.1080/03066150.2019.1655639

World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

World Health Organization. (2020). Health Adaptation to Climate Change, https://www.who.int/globalchange/climate/gefproject/en/

World Resources Institute. (2014). Clarifying the UNFCCC NAP Process. https://www.wri.org/insights/clarifying-unfccc-national-adaptation-plan-process

X
Y
Z

CASE STUDIES

1 Mcivor, S., Rashid, R.M., Haji, M.S., Khamis, R.R., Moh'd, A.A., Ali, M.S., and Juma, J.S. (2020). Pamoja voices climate-resilience planning toolkit. To support inclusive climate-resilient planning for cooperatives. IIED, London. Link to full report: https://pubs.iied.org/10205iied

2 McNamara, K., and L. Harris-Coble. (2018). Best practices for integrating gender equity and social inclusion (GESI) strategies within Nepal's Agricultural Extension System. http://ingenaes.illinois.edu/wp-content/uploads/ING-TN-2018_06-Gender-Equity-and-Social-Inclusion-GESI-Strategies-Nepal-Harris-Coble.pdf

3 Disaster Management Watch with contribution from Christian Aid. (2019). Identifying the root causes of the intersectional vulnerabilities of gender, climate vulnerability and ethnicity-based discrimination in Bangladesh. Internal Report November 2019, pp.139. https://dmwatch.com/project/research-on-identifying-the-root-causes-of-the-intersectional-vulnerabilities-of-gender-climate-vulnerability-and-ethnicity-based-discrimination-in-bangladesh/

4 UNHCR, CARE, and ActionAid. (2020). An Intersectional Analysis of Gender amongst Rohingya Refugees and Host Communities in Cox's Bazar, Bangladesh. An Inter-Agency Research Report, September 2020. https://www.careevaluations.org/wp-content/uploads/Coxs-Bazar-Abridged-vesrion_Gender-and-Intersectionality-Report-2020.pdf

5 UN Women. (2018). Inclusive Systemic Evaluation for Gender equality, Environments and Marginalized voices (ISE4GEMs): A new approach for the SDG era, 144 pp.https://www.unwomen.org/en/digital-library/publications/2018/9/ise4gems-a-new-approach-for-the-sdg-era#view

6 Qaisrani, A., and S. Batool. (2021). 'Vulnerabilities of rural women to climate extremes A case of semi-arid districts in Pakistan' pp.19-37, in *Engendering Climate Change: Lessons from South Asia.* New York: Routledge.

7 Elias, M. (2017). Gender and social inclusion in Joint Forest Management: Lessons from two Indian states. Policy brief. Bioversity International: Rome, 6p. Link to brief available here: https://gender.cgiar.org/publications-data/gender-equity-and-social-inclusion-joint-forest-management-lessons-two-indian

8 Lovell, E., Twigg, J., and Lung'ahi, G. (2019). *Building resilience for all: intersectional approaches for reducing vulnerability to natural hazards in Nepal and Kenya*. London: ODI. Link to full report: https://cdn.odi.org/media/documents/12697.pdf

9 Kohlitz, J., Megaw, T., Chong, J., Sugi, F., Palaipeni, P., Emanual, Y., Brikman, H., Joman, Y., Landa, S., Talan, J., Leong, L., Kelleher, J. and Gero, A. (2020). Climate Change Response for Inclusive WASH: A guidance note for Plan International Indonesia. Prepared by ISF-UTS for Plan International Indonesia.

10 World Health Organization. (2020). Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers.
https://www.who.int/tdr/publications/year/2020/tdr-intersectional-gender-toolkit/en/

WEBSITES

https://www.adaptation-fund.org/projects-programmes/project-sectors/agriculture/
https://www.adaptation-fund.org/projects-programmes/project-sectors/disaster-risk-reduction/
https://www.adaptation-fund.org/projects-programmes/project-sectors/forests/
https://www.adaptation-fund.org/projects-programmes/project-sectors/water-management/
https://blogs.worldbank.org/endpovertyinsouthasia/practical-ways-advance-social-inclusion-climate-and-disaster-resilience-south
https://www.cgiar.org/research/program-platform/forests-trees-and-agroforestry/
European Institute of Gender Equality (EIGE), https://eige.europa.eu/thesaurus/terms/1102.
https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html
https://www.feedthefuture.gov/about/
https://waterforwomen.uts.edu.au/climate-change-response/#outputs
WECAN (Women's Earth and Climate Action Network) International 'Women for Forests' program.
https://www.wecaninternational.org/women-for-forests
WECF (Women Engage for a Common Future) https://www.wecf.org/inclusive-forest-governance/

AF Internal documents consulted

-Guidance document for Implementing Entities on compliance with the AF Gender Policy[156]
-Updated Gender Policy and Gender Action Plan[157] (2021)
-Assessment Report on Progress of Implementation of GP and GAP[158]

Also consulted for additional contextual information were:

- Medium-Term Strategy (2018-2022)[159]
- ENVIRONMENTAL AND SOCIAL POLICY (APPROVED IN NOVEMBER 2013; REVISED IN MARCH 2016)[160]

[156] https://www.adaptation-fund.org/document/guidance-document-implementing-entities-compliance-adaptation-fund-gender-policy-2/
[157] https://www.adaptation-fund.org/document/proposal-for-the-updated-gender-policy-and-gender-action-plan-of-the-adaptation-fund/
[158] https://www.adaptation-fund.org/wp-content/uploads/2019/10/AFB.B.34.Inf_.9_Assessment-report-on-progress-in-the-implementation-of-the-Adaptation-Funds-Gender-Policy-and-Gender-Action-Plan_final_ready-for-posting1.pdf
[159] https://www.adaptation-fund.org/wp-content/uploads/2018/03/Medium-Term-Strategy-2018-2022-final-03.01-1.pdf
[160] https://www.adaptation-fund.org/wp-content/uploads/2013/11/Amended-March-2016_-OPG-ANNEX-3-Environmental-social-policy-March-2016.pdf

- Flyer on Environment, Social and Gender Policies (2018)[161]
- Environmental, Social and Gender Policy case studies (2019)[162]
    - Case Study 1 Project/programme with unjustified Unidentified Sub-Projects (USPs) [163]
    - Case Study 2 Project/programme with ESP principles issues: Natural Habitats and Biodiversity [164]
    - Case Study 3 Project/programme with ESP principles issues: Access & Equity and Public Health [165]

[161] https://www.adaptation-fund.org/wp-content/uploads/2018/06/AF-Gender-Environment-06.2018-WEB.pdf
[162] https://www.adaptation-fund.org/document/environmental-social-and-gender-policy-case-studies/
[163] https://www.adaptation-fund.org/wp-content/uploads/2019/11/KM-Case-Study-1-July-2020-v8.pdf
[164] https://www.adaptation-fund.org/wp-content/uploads/2019/11/KM-Case-Study-2-July-2020.pdf
[165] https://www.adaptation-fund.org/wp-content/uploads/2019/11/KM-Case-Study-3-July-2020.pdf