TOWARD GENDER-RESPONSIVE ECOSYSTEM-BASED ADAPTATION

Why it's needed and how to get there

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→ Table of Contents

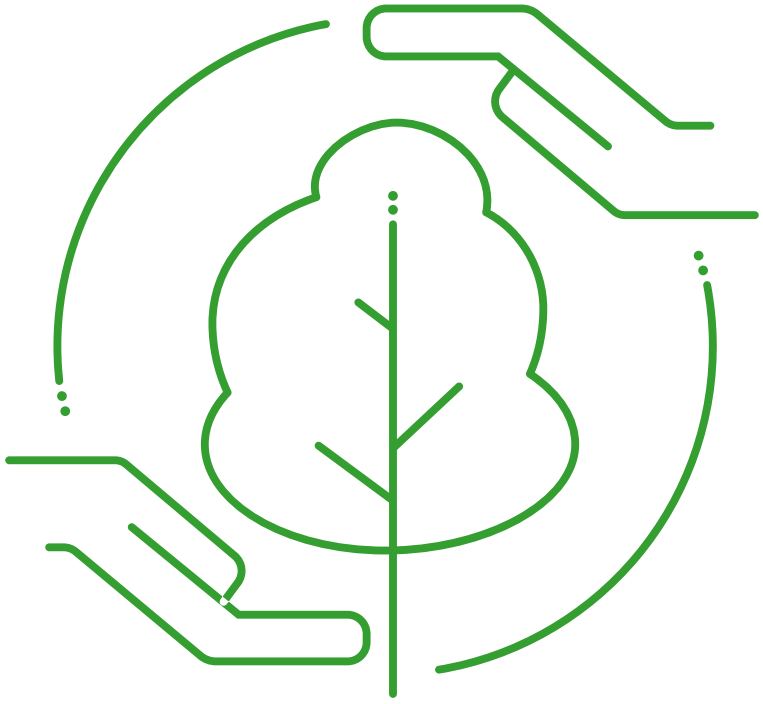
TABLES AND FIGURES

Boxes

Figures

LIST OF ABBREVIATIONS

ALivE	Adaptation, Livelihoods and Ecosystems Planning Tool
CARE	Cooperative for Assistance and Relief Everywhere
CBD	Convention on Biological Diversity
CHAL	Chitwan-Annapurna landscape
CLAC	Community Learning and Action Centers
CSFA-RFP	Climate-Smart Family Agriculture for Resilient Food Production Project
CVCA	Climate Vulnerability and Capacity Analysis
DRR	Disaster risk reduction
EbA	Ecosystem-based adaptation
FAO	Food and Agriculture Organization
GBV	Gender-based violence
GCF	Green Climate Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IIED	International Institute for Environment and Development
IPCC	International Panel on Climate Change
IUCN	International Union for the Conservation of Nature
NAP	National Adaptation Plan
NBSAPs	National Biodiversity Strategies and Action Plans
NGO	Non-governmental Organization
NPMLPAN	Nguna-Pele Marine and Land Protection Area Network
NRM	Natural resource management
NTFP	Non-timber forest products
NTNC	National Trust for Nature Conservation
SRJS	Shared Resources, Joint Solutions
TAL	Terai Arc landscape
UNEP	United Nations Environment Programme
UNEP-IEMP	UNEP's International Ecosystem Management Partnership
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
WWF	World Wildlife Fund



1. Introduction

The climate and biodiversity crises are inextricably linked.[1] Climate change represents a major driver of biodiversity loss,[2] while the degradation of ecosystems undermines resilience—of both people and nature—to climate-related shocks and stresses.[3] Underpinning both crises are persistent social and gender inequalities, which increase vulnerability to risks and reduce the options available to people to sustain their livelihoods and well-being in the face of these global challenges.[4] The way forward must enable people to build their climate resilience and realise their rights, while protecting the ecosystems upon which they depend.

Ecosystem-based adaptation (EbA) has emerged as a key approach to addressing the impacts of climate change in a way that reduces people's vulnerability while also building the resilience of ecosystems.[5] Though gender considerations are recognised as important to the success of EbA,[6] there is limited evidence to date that EbA initiatives have systematically taken a gender-responsive approach, going beyond sensitivity to actively address gender inequalities (please see Box 1 for an explanation of key gender concepts).

The purpose of this report is twofold: to illustrate the importance of integrating gender considerations in EbA actions and to provide concrete examples of how this can be done in practice. It is designed for EbA practitioners and adaptation policy-makers, including government decision-makers and technical support staff, civil society organisations, private sector enterprises, and research institutions. The report begins with a description of the rationale for integrating gender considerations in EbA action from both a policy and a practical perspective. It then outlines what gender-responsive EbA looks like in practice, introducing a set of broadly applicable building blocks, followed by case examples that illustrate how the building blocks have been applied in different contexts. Finally, recommendations are provided to improve the practice of gender-responsive EbA going forward.

Box 1 — Key Gender Concepts

The following concepts are important to this report:

Gender refers to the "socially constructed roles, behaviours, expressions and identities of girls, women, boys, men, and gender diverse people."[7] Gender is not defined by biology or by a person's body. Gender diversity recognises that there are gender identities and expressions that fall between masculine and feminine or outside the gender binary.[8] Gender identity can change over time.[9]

Gender equality is a situation where people of all gender identities have the same status and equal opportunities to realise their rights and to access resources, services and benefits.[10] Gender equality does not mean that people of all genders are the same—it is an absence of discrimination on the basis of gender.[11]

Equity is about "fairness and justice in process and in results."[12] It includes aspects of recognition of diversity and rights, procedures in relation to decision making, and distribution of costs and benefits across different actors.[13] To achieve equity, processes and actions must be designed to address barriers that prevent some people from realising their rights and accessing the same opportunities, resources, and benefits as others.[14] Equity is a pathway to equality.[15]

Intersectionality describes "the complex, cumulative way in which the effects of multiple forms of discrimination (such as racism, sexism, and classism) combine, overlap, or intersect."[16]

The following approaches are referred to in the paper and are important for EbA effectiveness:

Gender-responsive approaches seek to promote gender equality by examining and actively addressing gender norms, roles, and inequalities.[17] This goes beyond sensitivity, which is about awareness of gender differences, to a more action-oriented approach to address inequalities.[18]

Intersectional approaches recognise that people have multiple identities and take into account the historical, social, and political contexts that shape the different forms of discrimination that people face.[19] They help to avoid generalisations about the experiences of people of a particular gender, recognising the differences among women, men, and nonbinary people. Intersectional approaches are inclusive, paying attention to gender balance as well as the representation of people with other socio-cultural characteristics that influence their experiences and the discrimination that they may face.[20]

For an overview of key resources on gender and climate change adaptation, please see Annex 1.

→ 2. Why Integrate Gender Considerations into EbA Actions?

This section explains the rationale for integrating gender considerations into EbA actions, from both a policy perspective and a practical point of view. For a brief overview of what we mean by EbA, please see Box 2. A list of useful resources on EbA can be found in Annex 2.

KEY GENDER CONSIDERATIONS FOR EBA ACTIONS

The impacts of climate change affect people differently, depending on their gender as well as a range of other factors, including age, ethnicity, Indigeneity, socio-economic status, and disability.[21] For climate change adaptation to be effective, it must take these differences into account, while also addressing the systemic barriers and discrimination that make some people more vulnerable than others.[22] This applies equally to EbA, which is one approach within a broader adaptation strategy.[23]

The following sections provide an overview of the gender issues that must be taken into consideration in a gender-responsive approach to EbA. This overview also illustrates why a gender-responsive approach is essential for EbA actions to be effective.

Box 2 — EbA: Overview and Key Resources

EbA is a means to protect, restore, and enhance ecosystem services to reduce climate change risks and impacts and improve the resilience of people. The concept of using ecosystems to adapt to climate change (EbA) has been defined by the CBD as **"the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change. It aims to maintain and increase the resilience and reduce the vulnerability of ecosystems and people in the face of the adverse effects of climate change."**[84] EbA has the potential to generate economic returns and provide multiple benefits, such as improved health, biodiversity protection, food security, and alternative livelihood opportunities, all of which can build resilience to climate change.

Gendered Roles and Responsibilities

Gender norms influence the roles and responsibilities that people take on in their households and communities.[24] These differences can be observed across a range of ecosystem services. With respect to water, the World Health Organization (WHO) and UNICEF reported in 2017 that women and girls are responsible for collecting water in 8 out of 10 households that did not have water at their premises.[25] In the fisheries sector, analysis by the Food and Agriculture Organization of the United Nations (FAO) found that men comprise approximately 85% of the harvesting workforce, while women undertake 90% of the processing work.[26] A global comparative study that assessed gender differences in use of forest products found that there are typical roles played by women and men, a common assertion in the literature on gender and forestry, although these vary across regions.[27] There is emerging evidence that gendered roles lead to differences in the value given to different ecosystem services. For example, one study found that women placed more value on regulating services such as air purification and water regulation, while men prioritised provisioning services such as agriculture;[28] however, more research is needed in this area to better understand these dynamics.[29]

These are examples that illustrate the ways in which roles may be assigned along gender lines, but it must be kept in mind that these dynamics are context specific, and there are other factors (age, socio-economic status, etc.) that also influence the roles people play.[30] A number of studies emphasise the need for localised analysis to understand gender roles in relation to ecosystem services in an intersectional approach (see Box 1 for explanation).[31] Further, there is evidence that typically female roles may place women and girls at risk of gender-based violence (GBV): this has been observed in relation to the collection of fuel and water, for example. As these resources become increasingly scarce, more time and distance are required to secure them, increasing exposure to risk of GBV.[32] Given the impacts of climate change on ecosystem services, this is an essential consideration for EbA.

Gender Differences in Access to and Control over Natural Resources

There is also considerable evidence of gender differences in access to and control over natural resources, with women most often at a disadvantage. [33]Both formal and customary land tenure systems tend to disadvantage women, leaving them with less access to land and reduced decision-making power in relation to land use.[34] This is particularly true for Indigenous women.[35] Similar trends are observed for other resources, including fisheries and forests.[36] In some instances, it is men who face barriers in accessing particular resources[37]—again, context-specific analysis is important.

There are also factors that indirectly influence gender differences in resource access and control. A lack of capital may affect women's access to resources. For example, research in the fisheries sector in Mozambique and Kenya found that women may not be able to generate the financial resources needed to invest in fishing vessels and equipment that would enable them to access more distant fishing grounds.[38] Limitations on women's mobility due to social norms or security risks may inhibit their ability to utilise resources such as forests and fisheries.[39] Educational gaps and institutional barriers have been observed to affect women's access to resources.[40] Recent research by IUCN also found that GBV is employed to maintain or exert control over natural resources, particularly at times when resources are scarce—an increasing concern in the face of climate change and biodiversity loss.[41] The risk of violence faced by environmental defenders—people who stand up for environment-related human rights—has also been highlighted, particularly for those who are Indigenous, or of underrepresented sexual orientations, gender identities and/or expressions, and sex characteristics.[42]

Gender-Specific Knowledge

The existence of gender-specific Indigenous and traditional knowledge that is applied in the management and conservation of ecosystem services is another aspect that is relevant for EbA. With differing roles in relation to ecosystem services, people develop specific knowledge, which may be passed down to children of the same gender.[43] For example, a study in Malaysia identified differences in knowledge about native fruit trees by both age and gender, based on differing amounts of time spent in orchards and forests and roles played in the harvesting, processing, sale, and consumption of the fruit.[44] In the Pacific, research found that women's knowledge of water and agriculture was particularly important in relation to ensuring water and food security when climate hazards occur.[45] However, evidence also shows that women's knowledge may not be valued in the same way, and therefore may not be effectively utilised in decisions around the use and management of ecosystem services.[46] These examples illustrate the importance of harnessing knowledge from people of all genders to find effective EbA solutions.

Imbalances in Decision-Making Power Related to Adaptation and Ecosystem Services

Women are underrepresented in environment-related decision making across levels and sectors,[47] which has considerable implications for how gender-responsive adaptation action can be. Specifically with respect to EbA, there are two key aspects to consider: gender-equitable participation in the planning and implementation of EbA actions and gender balance in broader governance mechanisms for natural resources. The two are interconnected—because women are less likely to be involved in decision-making structures, they may also be left out of planning processes for EbA and other adaptation actions. Data gaps make it difficult to accurately assess the scale of this problem;[48] however, available analysis shows, for example, that there are very few female heads of environment ministries.[49] The gender imbalance in decision making is recognised at the international level, including in the biodiversity and climate change negotiations.[50]

At the local level, where EbA actions are typically implemented, research has found considerable gender gaps in natural resource governance mechanisms, with women often excluded from decision-making processes.[51] For example, research in Liberia found that social norms, which were strictly enforced by families and communities, inhibited women's participation in forest management committees, despite the importance of forest activities for livelihoods, particularly of poorer households.[52] A study of water user associations in six communities in the Assam and Bihar provinces in eastern India found that the inclusion of women was minimal, though slightly higher in Bihar where there is a requirement for women's representation.[53] Conversely, there is evidence that increased participation of women in decision making related to ecosystem services can yield benefits in terms of sustainability and equity[54] and can lead to empowerment in other spheres.[55]

Inequities in Benefits from Ecosystem Restoration, Conservation, and Management

The question of who benefits from investments in ecosystem restoration, conservation, and management is an important one for EbA. The fact that women and marginalised groups are disadvantaged in relation to access and control over resources means that they are less likely to benefit from actions taken to protect ecosystem services. For example, research in India found that women in lower-caste groups were highly dependent on forest resources, which were used for income, food, and medicinal purposes. However, they faced barriers in accessing value chains for non-timber forest products (NTFPs) derived from native fruit trees, which affected their ability to maximise the benefits from this resource.[56] This example highlights the additional challenges faced by women who are also members of a socially excluded group, emphasising the need for an intersectional approach.

Similar trends are observed in the agricultural sector, where there is strong evidence that women have lower productivity rates and, consequently, lower incomes. This is due to a range of factors including women's unpaid care burden and lower access to credit, inputs, and extension services.[57] In another example, an analysis of ecosystem-based tourism in East Africa found that women were less likely to own businesses and were generally limited to particular roles, such as working in restaurants. As a result, the bulk of the tourism income was benefitting men.[58] While these examples do not speak specifically to climate change adaptation, they illustrate the potential for the benefits of EbA actions to be inequitably distributed if gender issues are not considered. Indeed, the International Panel on Climate Change (IPCC) has reported that disadvantaged groups, including women-headed households, tend to benefit less from climate actions.[59]

Benefits of Integrating Gender Considerations

Finally, there is also considerable evidence that integrating gender considerations in ecosystem-based initiatives increases effectiveness and sustainability. The IPCC Special Report on Climate Change and Land asserts that recognising gender differences and enabling women to realise their land rights and apply their knowledge in decision making would support sustainable land management and integrated adaptation actions.[60] A recent report by IUCN highlighted a number of benefits derived from addressing gender issues in fisheries management: these include better enforcement of regulations, increased value addition, and reductions in product losses.[61] Similarly, efforts to increase women's participation in water resource management have long been known to yield better outcomes.[62] There is also emerging evidence that adaptation initiatives that address gender are more effective[63] and that synergies with other objectives such as food security can be realised through rights-based approaches that empower women.[64] Some research also highlights the benefits of engaging men in gender equality initiatives, for example in efforts to reduce GBV.[65]

All of this suggests that integrating gender considerations in EbA actions can yield benefits that reach beyond progress toward gender equality, in terms of more inclusive governance and better management of resources. At the same time, however, EbA has its limitations. It is important to be realistic about what can be achieved through individual initiatives in order not to raise false hopes that the concept is unable to live up to. The achievement of gender equality and social inclusion is a long-term process that requires systemic, holistic changes in societies, institutions, and governance, and EbA actions alone cannot achieve these changes. Gender-responsive EbA actions must therefore be embedded in broader change processes (for example, by connecting with social movements or linking to relevant policies) if they are to be effective in tackling discriminatory norms and practices.

POLICY CONTEXT FOR INTEGRATING GENDER CONSIDERATIONS INTO EBA ACTIONS

A number of international policy agendas include commitments that create a mandate for integrating gender considerations in EbA actions. The 2030 Agenda for Sustainable Development includes a goal on gender equality and empowerment of women and girls that requires attention across all of the Sustainable Development Goals to be achieved.[66] From a climate change perspective, the Paris Agreement under the UNFCCC acknowledges the right to gender equality and calls for adaptation action to adopt a gender-responsive approach.[67] The enhanced Lima Work Programme and Gender Action Plan, agreed in 2019, reinforces these commitments.[68] In the CBD, the preamble recognises that women play an essential role in conserving and sustainably using biological diversity and affirms the need for their full participation in policy-making and implementation in relation to the conservation of biodiversity.[69] The commitment to gender mainstreaming was reiterated in the establishment of the Strategic Plan for Biodiversity 2011–2020 and the Aichi targets,[70] as well as in the 2015–2020 Gender Plan of Action.[71] More recently, discussions are underway on the post-2020 global biodiversity framework and how to ensure that it is gender-responsive,[72] and a post-2020 Gender Plan of Action is under development.[73]

At the national level, countries are planning and implementing actions through country-driven processes that aim to address the climate and biodiversity crises. These include a range of processes, including Nationally Determined Contributions to the Paris Agreement and national disaster risk reduction (DRR) strategies. Most relevant from an EbA perspective are:

- **National Adaptation Plan (NAP) processes**, which aim to identify and address medium- and long-term priorities for climate change adaptation, as well as to put in place the systems and capacities needed to integrate adaptation in decision making across sectors and levels. Though established in 2010, the NAP process was recognised in the Paris Agreement as a key mechanism for achieving the global goals on adaptation.[74] The original decision on NAPs recognised the need to integrate gender considerations,[75] and a toolkit was developed in 2019 to guide this process.[76]

- **National Biodiversity Strategies and Action Plans (NBSAPs)**, which provide a national framework for implementing the three objectives of the CBD, namely: the conservation of biological diversity; its sustainable use; and fair and equitable sharing of the benefits from its use.[77] NBSAPs are expected to highlight the ways that biodiversity contributes to sustainable development, as well as the threats. They should identify actions to address the threats, including priorities and targets. Mainstreaming of gender considerations is a key approach for the development of NBSAPs,[78] and guidance was developed in 2010.[79]

In both cases, analysis has been undertaken to assess the extent to which gender considerations have been integrated. Analysis by the NAP Global Network in 2020 showed that more than 90% of NAP documents contained a reference to gender; however, only around half of the documents contained evidence of participation by women or women's groups, and only two thirds provided evidence that gender had been considered in the identification of adaptation options.[80] In 2018, the Secretariat of the CBD reviewed NBSAPS that had been submitted by countries between 2010 and 2018, finding that less than half included a reference to gender or women, and only one third included gender-related actions or targets. It noted that women were most often positioned as a vulnerable group.[81] In both cases, it is clear that there is room for improvement in terms of taking a gender-responsive approach.

Also of importance for EbA is the issue of vertical integration—linking national and subnational processes in a strategic, intentional approach—which helps ensure that local realities are reflected in national plans and that these plans create an enabling environment for locally led action.[82] EbA action is more effective when it works toward multi-level governance.[83] Vertical integration is also essential for a gender-responsive approach, as it creates opportunities for greater stakeholder participation and can help channel resources for action to grassroots actors, including women's groups and civil society organisations representing marginalised groups.

→ 3. Gender-Responsive EbA in Practice: Building Blocks

This section explains what gender-responsive EbA looks like in practice, identifying the key building blocks.

WHAT IS GENDER-RESPONSIVE EBA?

A gender-responsive approach to EbA is one that actively promotes gender equality, by acknowledging gender differences and tackling discriminatory policies, practices, and norms. Gender-responsiveness is often less about the EbA actions themselves and more about how they are planned and implemented. What this means is that it is difficult to say that a particular action is or isn't gender responsive—this depends on the context, how it was planned, how it is implemented, and so on.

Recent work on integrating gender considerations in adaptation has identified three key elements of a gender-responsive approach, as shown in Figure 1.

Across all three dimensions, an intersectional approach is needed to understand and address the differences among people of the same gender based on race, age, sexual orientation, socio-economic status, Indigeneity, and other factors that influence their roles, experiences, and the forms of discrimination they face. And, as noted above, EbA actions must be integrated into broader governance systems and social change processes to achieve the systemic changes that are needed to realise gender equality and social inclusion.

Recognition of gender differences in adaptation needs and capacities: Gender differences in roles, knowledge, and realization of rights mean that women, men and nonbinary people have different needs and capacities in relation to EbA. These differences must be acknowledged and addressed in EbA actions, so that no one is left behind.

Gender-equitable participation and influence in adaptation decision-making processes: Decision making for EbA includes planning and implementation strategies, as well as the ongoing governance of ecosystem services to sustain EbA efforts. Across all decision-making processes and mechanisms, efforts are required to ensure gender equity and inclusion of underrepresented voices.

Gender-equitable access to finance and other benefits resulting from investments in adaptation: EbA actions can provide social and economic benefits to individuals, groups, and communities. For EbA to be gender-responsive, these benefits must be distributed equitably across genders and social groups.

Figure 1: Elements of a Gender-Responsive Approach[85]

WHAT DOES GENDER-RESPONSIVE EBA LOOK LIKE IN PRACTICE?

There are opportunities at different points in the planning and implementation of EbA actions to integrate gender considerations, though ideally this will be central to the approach from the outset. To guide a gender-responsive approach, we have identified a set of "building blocks" * representing key steps that can be taken at different stages. As shown in Figure 1, these building blocks align with the elements of gender-responsive adaptation, providing specific considerations for planning and implementing EbA actions. Given that gender responsiveness is highly dependent on the context and the process undertaken, these building blocks represent approaches that are broadly applicable and can help ensure that EbA initiatives promote gender equality and don't exacerbate existing inequalities. The following sections explain the different building blocks and how they can be put in place.

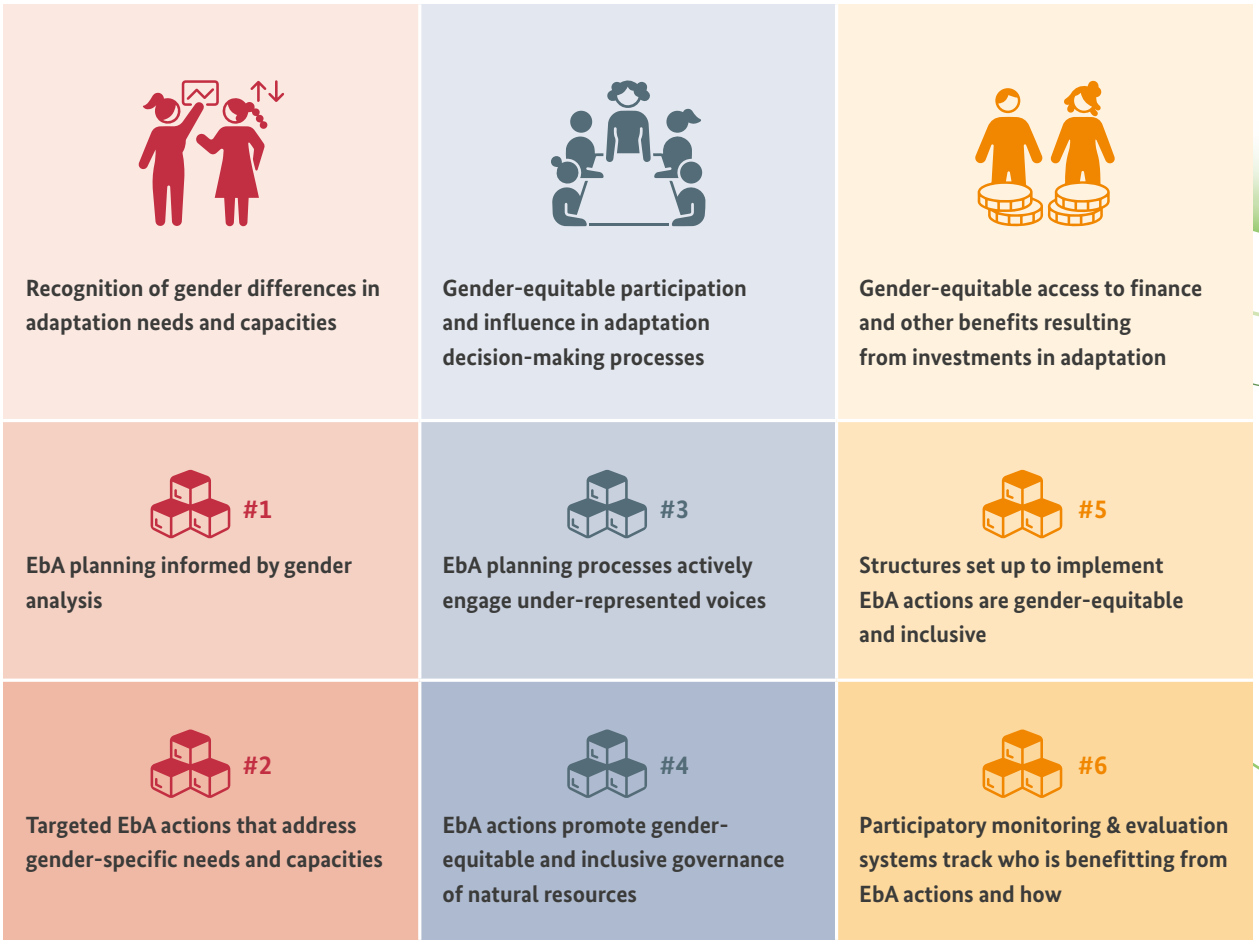


Figure 2: Building Blocks for a Gender-Responsive Approach

* The "building blocks" approach was inspired by the PANORAMA – Solutions for a Healthy Planet initiative, which showcases practical solutions for conservation and sustainable development.

BUILDING BLOCK #1
EbA planning informed by gender analysis

Gender analysis is the foundation for a gender-responsive approach. It explores the roles and relationships between people of different genders, as well as gender-specific opportunities, barriers, and decision-making power.[86] Gender analysis—with an intersectional approach—enables an understanding of gender differences and systemic discrimination that must be addressed to make progress toward gender equality. With this knowledge, EbA actions can be planned and implemented in ways that recognise gender roles and dynamics while tackling discriminatory norms and practices.

Social norms and power dynamics are highly context specific, requiring participatory analysis processes to overcome assumptions and challenge unhelpful perceptions. As well, gender roles and relations are dynamic, changing over time and under different circumstances: consequently, gender analysis must be an ongoing process that informs learning and adjustment and is an essential element of monitoring & evaluation, with participation built in throughout. This makes it important to empower local institutions such as women's groups and organisations representing socially excluded groups to ensure that local capacities are in place for the longer term and that approaches evolve with the context.

BUILDING BLOCK #2
Targeted EbA actions that address gender-specific needs and capacities

Recognition that people of different genders have different needs and capacities for adaptation demands the design of targeted actions. There are a number of ways that adaptation actions can be designed specifically for women, men, and nonbinary people. First, a range of actions may be needed to reduce vulnerability of livelihoods, recognising gender-specific roles. For example, if women and men play different roles in fisheries or forestry, specific strategies may be needed to ensure that EbA actions generate equitable benefits and do not undermine resilience for anyone working in the sector. Targeted actions may also be needed to overcome gender-based barriers to resource access and control, for example by engaging with community leaders who make land-use decisions, to ensure that EbA actions do not exacerbate existing inequalities. Finally, there may be a need to channel resources on a priority basis to groups that are typically excluded, such as women's groups or Indigenous communities, to ensure that they can meaningfully participate in the planning and implementation of EbA actions.

BUILDING BLOCK #3
EbA planning processes actively engage underrepresented voices

The planning of EbA actions should be a participatory process that brings together all relevant stakeholders. This includes local authorities, conservation organisations, and community members. Without concerted attention to ensuring participation of groups that are typically underrepresented, there is a risk that this engagement will reinforce existing processes of social and political exclusion. Further, without participation of marginalised groups, there is a reduced likelihood that the EbA actions being planned will meet their needs. What this means is that the leaders of EbA planning processes must actively work to create opportunities for meaningful participation by women, Indigenous communities, and others whose voices are often left out of decision making. This may require targeted consultations, capacity building, and engagement of facilitators from the excluded groups. Where appropriate, dialogue between marginalised groups and the broader community can be helpful in building a better understanding of needs and barriers; however, this requires skilled facilitation and must be based on a careful assessment of potential risks to those who do speak out.

BUILDING BLOCK #4
EbA actions promote gender-equitable and inclusive governance of natural resources

The implementation of EbA actions occurs within existing systems of governance for natural resources. This may include local bylaws, land use plans, conservation policies, and local development plans, among others. In some cases, these existing governance systems are discriminatory, in terms of resource access and use, representation of women and marginalized groups, and sharing of benefits from ecosystem services, which can exacerbate vulnerability to climate change and undermine efforts to protect biodiversity. As EbA actions are implemented, it is important to engage with decision makers at different levels to raise awareness of discriminatory policies and practices, and to promote governance of ecosystem services that is gender-equitable and inclusive.

BUILDING BLOCK #5
Structures set up to implement EbA actions are gender equitable and inclusive

Often, EbA actions will be implemented through community-based mechanisms, such as forest user groups, water management committees, or local conservation organisations. These may already be in existence or may be established specifically to manage the EbA action. In either case, attention to gender balance and inclusion of under-represented groups in these mechanisms is an essential element of a gender-responsive approach. This helps ensure that specific needs are met and benefits are equitably distributed, and can serve to challenge existing norms that perpetuate discrimination. Awareness raising and capacity building may be needed to facilitate this participation.

BUILDING BLOCK #6
Participatory monitoring and evaluation systems track who is benefitting from EbA actions and how

The monitoring and evaluation of EbA actions should involve participatory processes to understand how those directly involved in implementation, as well as the broader community, perceive the process and the results. For a gender-responsive approach, this process must utilise disaggregated data and examine who is benefiting from EbA actions, how, and why or why not, as well as tracking any unintended negative benefits on particular groups or communities. This can help them avoid negative impacts while adjusting and identifying strategies to ensure that benefits from EbA actions are distributed equitably across genders and social groups.

→ 4. Gender-Responsive EbA in Practice: Case Examples

The following case examples demonstrate gender-responsive EbA in practice, providing an example for each of the six building blocks.

4.1 BUILDING BLOCK #1: EBA PLANNING INFORMED BY GENDER ANALYSIS

CASE EXAMPLE | Rehabilitating Mangrove Ecosystems in Senegal

> Context

The Saloum Delta, on the west coast of Senegal, consists of 5,000 square kilometres (km^2) of brackish channels, islands and islets, mangrove forest, an Atlantic marine environment, and dry forest. The delta provides habitat for a range of species, including fish, molluscs, crustaceans, marine mammals, and migratory birds.[87] It is classified as a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) due to its ecological and cultural significance.[88]

Climate change is already affecting the Saloum Delta, causing ongoing drought that has affected the availability of fresh water and led to increased salinity in water and soil.[89] Sea level rise is also increasing coastal erosion and submersion of the mangroves.[90] Climate change projections indicate that temperatures in Senegal will increase by 1.7°C to 4.9°C by the 2090s. Projections for rainfall are inconclusive but suggest that more rain will fall in heavy events.[91] Along with sea level rise, these impacts have important implications for coastal infrastructure, livelihoods, and biodiversity.[92]

Anthropogenic pressures are also affecting the area, notably through overfishing and deforestation, exacerbated by migration to the coastal areas.[93] The area of the delta covered by mangroves decreased from 60% in 1980 to less than 40% in 2006.[94] This has important implications for communities in the area, as the mangroves are important for their fisheries and the timber and NTFPs they provide. They also protect the coastline from storms and erosion due to rising sea levels,[95] and provide a home for endangered species including manatees and dolphins.[96] Agriculture is also important in the area; however, the combination of recurrent drought and soil degradation has made this more challenging in recent years.[97]

Though some progress has been made at the policy level and in local governance structures, where women held 48% of elected seats in 2019,[98] gender inequality remains a considerable challenge in Senegal. Almost 30% of married women 20–24 years of age were married before they turned 18,[99] and in 2017, less than 30% of women of reproductive age were using contraceptives.[100] There is a gender gap in literacy, with only 40% of females over 15 being literate, compared to 65% of males in 2017.[101] Traditionally, roles in fisheries are gendered, with men typically fishing and women typically doing the processing.[102] Despite their important role, women are underrepresented in fisheries governance structures and investments in the fisheries sector do not prioritise their needs.[103]

> Response

In response, the local non-governmental organisation (NGO) Enda Graf Senegal launched a project in 2014, working with female fishers with the objective of preserving the mangrove ecosystems, while also securing women's economic autonomy and building resilience to climate change.[104] Project activities are centred around women's livelihoods and the protection of the sensitive ecosystem upon which they depend. This includes a number of aspects, from reforestation efforts in the mangrove forest, to organic gardening.[105] Sustainable fishing practices, including calibration and weighing of the catch and shellfish reseeding, aim to reduce the pressure on the fisheries.[106] The project has also tackled the governance aspects in collaboration with the management mechanisms for artisanal fisheries, national park management agencies, and regional and local authorities, with a view to achieving gender balance in fisheries decision-making bodies.[107]

> Putting the Building Block Into Practice

At the outset of the project, gender analysis was conducted to better understand the respective roles, responsibilities and relationships in the fisheries economy and governance. The analysis found that policies and practices in the sector increasingly disadvantage women, for example by prioritising the urban and export markets over local consumption. This has made it more difficult and costly for female fish processors to run their businesses. Fish processing has become an opportunity to grow businesses; however, the benefits have primarily gone to the owners of larger processing facilities and those they employ—primarily young men. In some cases, women went from managing their own businesses to working as labourers for men who have more capital and have been able to procure tools such as drying ovens.[108]

The negative impacts on the livelihoods of female fish processors have broader implications for their families and communities. Locally produced and processed fish is an important source of protein, so less supply and higher costs affect food security. More than half of the women involved in processing identified as heads of households, with their income covering key expenses such as food, health care, and education. Women's knowledge of processing techniques, handed down through generations, has been sidelined, putting at risk an important cultural resource.[109] The sectoral analysis was complemented by participatory analysis that explored the gendered division of labour within households, using tools such as daily time clocks. This process highlighted the heavy workload carried by women, including growing food, fetching water, and caring for children, as well as their role in managing natural resources. Based on this analysis, the project worked on two key aspects: addressing the imbalance in the distribution of labour in the household and creating opportunities for women to use their knowledge and skills in the fisheries sector.[110]

> Impacts and Lessons Learned

A total of 4,800 women from seven villages in the delta received training in public speaking, leadership, and advocacy. This has enabled them to develop skills that they have applied to defend their rights and ancestral knowledge of sustainable fishing practices. Women are engaged in mangrove restoration activities and have been able to increase their incomes through improved market access.[111] As a result, there is greater recognition of the value of traditional knowledge in the fisheries sector and how this can be channelled for EbA.[112]

There have also been changes in gender dynamics as a result of the project. Men have taken on more of the domestic tasks, including helping with childcare and collecting water. Participants reported that there is less conflict within households as the division of work is more balanced. It was observed that younger men seemed more ready to share the workload than their elders, highlighting the importance of engaging youth in efforts toward social change.[113]

Finally, there is better representation of women in the governance of the fisheries sector. With reductions in women's workload at home, they have had more time available to engage in local fishery regulation bodies.[114] These decision-making bodies now include 20 elected women leaders, and, thanks to the training provided by the project, they are better able to articulate their needs and priorities.[115]

4.2 BUILDING BLOCK #2: TARGETED EBA ACTIONS THAT ADDRESS GENDER-SPECIFIC NEEDS AND CAPACITIES

CASE EXAMPLE | Building Climate Resilience in Agro-Pastoral Communities in Mauritania

> Context

With an already hot and dry climate, Mauritania has experienced three long periods of drought in the last 25 years that have accelerated desertification processes.[116] Climate projections indicate that annual rainfall will decrease by up to 10 mm by 2060, with more falling during a shorter rainy season. It is expected that this will lead to increases in extreme rainfall and potentially to more flooding.[117] This has important implications for the availability of water, food security, and human health.[118]

In addition to the effects of climate change, land in Mauritania is under pressure from overgrazing of livestock, erosion, and salinisation. The country provides winter breeding grounds for a range of birds and habitat for a diversity of species.[119] Other threats to biodiversity include poaching, fragmentation of habitat, and invasive species.[120] As of 2018, only 0.2% of the land was covered in forest, while 38% was dedicated to permanent pasture.[121]

The village of Zreg Ainou is located in the commune of Diel-wor in the western part of Mauritania, in the Sahel-Saharan region. The community has experienced recurrent drought and severe land degradation[122] and has been affected by wildfires in recent years.[123] This has had a negative impact on livestock, agriculture, and forest-based livelihood strategies, leading to food and income insecurity.[124] Around Zreg Ainou, the forest that does exist provides important resources, including fruit and traditional medicines, but it is threatened by charcoal production.[125]

Key indicators related to gender equality present a concerning picture. Based on 2017 data, Mauritania has the 7th highest rate of maternal mortality in the world,[126] and 67% of girls and women aged 15-49 had undergone female genital mutilation/cutting.[127] Specifically in Zreg Ainou, analysis found that women had limited decision-making power, girls were less likely to be educated than boys, and child marriage was common. Men were often away from the home with the livestock, leaving the women behind to manage the household and care for family members, sometimes for up to six months of the year.[128]

> Response

A local organisation focused on the development and promotion of human rights, the ADPDH, launched a project to address the negative impacts of recurrent drought and land degradation on the local environment and community livelihoods. The project aims to increase the well-being of community members, including men, women, and youth, by building resilience to climate change. Activities focus on protecting and managing the pastures and surrounding forests; vegetable and fruit production to improve income and food security; and improving health of livestock, a key asset for households in Zreg Ainou. This integrated approach is based on community-identified needs, addressing immediate challenges while investing in the natural resource base to build resilience over the longer term.

> Putting the Building Block Into Practice

The project took a whole-of-community approach to building resilience.[129] The activities oriented toward livestock herders will primarily benefit men, while the gardening activities are targeted at women. Activities were designed to address particular vulnerabilities, for example, by increasing access to veterinary services and vaccinations for livestock and by distributing seeds to women for the community garden. These actions will help to reduce the impact of drought and land degradation on people's livelihoods.

At the same time, for the benefit of all, efforts were made to reduce overgrazing and threats to the forests that surround the pastures, in an effort to protect the highly sensitive local ecosystem from both climate change and damage resulting from human activities. A campaign was launched to end the collection and processing of charcoal, and the project worked with the local government to put in place bylaws against deforestation, as well as to ensure their enforcement. These efforts have been complemented by pilot solar energy installations in the community. The project also worked to increase tree cover by planting fruit trees around the community garden.[130] Collectively, these actions enhance the resilience of the local ecosystem by reducing erosion and land degradation while shading the gardens and pastures. Healthier forests also provide benefits for people, including fruit for consumption, traditional medicines, and NTFPs, which can provide a source of income.

> Impacts and Lessons Learned

The community garden is fully managed by the women of Zreg Ainou through a dedicated committee. It has yielded a number of benefits beyond the production of fruits and vegetables. Having received training in gardening techniques, the women are producing enough to sell, providing them with a new source of income. This has improved their decision-making power within the household, offering them more independence and the ability to acquire assets, including mobile phones, which increase their access to information. With the male heads of households spending less time away with the livestock, the household tasks are better distributed, and it has been observed that girls are attending school more than before.[131]

4.3 BUILDING BLOCK #3: EBA PLANNING PROCESSES ACTIVELY ENGAGE UNDERREPRESENTED VOICES

CASE EXAMPLE | Guardians of the Hills: Empowering women leaders for urban resilience

> Context

San Pablo is an urban district in the City of Portoviejo, located on the coast of Ecuador, with an approximate population of 12,000 inhabitants, of which 52% are women and 28% are children under the age of 12. Structural poverty is widespread in the community. The City of Portoviejo, like other urban areas, experienced accelerated urban growth that has resulted in informal land occupation, the establishment of settlements along riverbanks, hills, protected areas, and natural streams creating growing pressure on existing ecosystems and natural resources. The increasing deforestation of the dry forest to establish new settlements has modified the soil, leaving the hills without their natural protection. As a result, many families are located in landslide-prone areas and exposed to increased flooding.[132] The area has historically been exposed to heavy rainfalls that cause landslides and flooding. As climate change exacerbates the frequency and intensity of rainfall, the risk of such hazards increases, with the potential to generate significant human and material losses.[133] The precarious socio-economic situation combined with conditions and location of settlements increases the vulnerability of surrounding communities, including in the hills of San Pablo.[134]

Although Ecuador has a number of legal frameworks in place that address gender equality and seek to eliminate all forms of discrimination, gender gaps and violence against women still remain. Despite some progress, gender equality does not appear in the country's national development plan. In rural areas, women work an average of up to 23 hours more than men per week and earn less monthly income. GBV remains one of the main obstacles to equality, with 6 out of 10 women experiencing some type of violence in their life. Further, stereotypes and cultural practices that influence the preservation of power relationships perpetuate the subordination of women in relation to men.[135] In addition, women and girls tend to suffer more from the negative consequences of natural disasters, poverty, and violence due to traditional gender-based roles and responsibilities.[136]

> Response

Within this context, GIZ is implementing the "Guardians of the Hills Project," which aims to enhance local resilience and simultaneously improve the quality of urban ecosystems by empowering female community leaders, who will be part of implementing climate change adaptation measures and establishing an early warning system for landslides. The project seeks to strengthen women's roles as local actors and to empower them to promote changes in their community, enhancing participation and co-responsibility. Specific measures are aimed at restoring the ecosystems of the hills through installations of orchards, terraced slopes, and eco-paths, which stabilise the slopes and allow for increased rainwater infiltration and help to mitigate the risk of landslides.[137]

> Putting the Building Block Into Practice

The project included a specific focus on strengthening the role of women as leaders in climate action and the implementation of EbA measures in landslide-prone areas. An important element of the planning process involved the participatory identification, design, and implementation of EbA actions that actively engaged women from the community. This involved using a diagnostics tool to understand different groups as well as the social context and risks within the community.[138]

To ensure meaningful and inclusive citizen dialogues between the municipality and the community, targeted trainings were organised to increase organisational capacities among particularly vulnerable people who live in informal settlements. For this purpose, the project team engaged specifically with women's groups and female leaders in the neighbourhood. Given the widespread occurrence of GBV as well as drug issues, an important conclusion of the training and engagement processes was the need for integrated measures that address the social and environmental resilience of the community, beyond the risks of landslides and flooding.[139]

Participatory processes helped the community itself to understand the risks they are facing by establishing informal settlements in landslide-prone areas. Involving female leaders and women's groups in the design process ensured that measures addressed specific needs of women and children. Consequently, along with EbA measures to stabilise the slopes and increase forest cover, additional actions were taken to build the social resilience of the community. EbA measures were underpinned by efforts to mobilise women to participate in community improvement projects to restore public spaces, for example by installing neighbourhood signs and urban gardens that gave the community a sense of ownership and commitment to make their neighbourhood safer and more liveable. The engagement process raised awareness on the issue of GBV and led to the formation of groups where women can share their experiences and find help. The improvement in organisational capacities, along with the creation of safe public spaces and urban gardens, has specifically benefited women and in particular their children.[140]

> Impacts and Lessons Learned

By designing and implementing EbA measures in a participatory way that focused specifically on engaging women throughout the process, the project team and the municipality were able to understand the social context and gender-specific challenges. This has led to the design of gender-responsive measures that address underlying issues such as GBV and other social risks to strengthen adaptive capacity of women and build their resilience, alongside the EbA measures designed to address climate and disaster risks.

Proactively engaging women as key actors in the project design and implementation has strengthened their role as local stakeholders for climate action and as important decision-makers for their communities. Women increased their influence within the municipal planning process and have used this platform to raise awareness around issues like GBV.

An essential element of the project was to increase the organisational capacities of women in the community. This has enabled them to come together in GBV prevention groups, to share experiences about domestic violence, and to identify procedures and provide guidance to support women affected by violence.[141]

4.4 BUILDING BLOCK #4: EBA ACTIONS PROMOTE GENDER-EQUITABLE AND INCLUSIVE GOVERNANCE OF NATURAL RESOURCES

CASE EXAMPLE | The Hariyo Ban Programme in Nepal: Increasing participation of women and marginalised groups in natural resource governance

> Context

Climate change projections for Nepal indicate that mean annual temperatures will increase by 1.8°C–5.8°C by the 2090s, and that winters will be drier and monsoons wetter.[142] These impacts have implications for people's livelihoods in terms of decreased availability of water, damage to crops, and displacement.[143] They also affect ecosystems by changing forest vegetation, affecting freshwater sources, and threatening habitats for key species such as snow leopards and one-horned rhinoceroses.[144]

This case study focuses on two key landscapes: the Chitwan-Annapurna landscape (CHAL), which stretches from the high Himalayas to the lowlands in central Nepal; and the Terai Arc landscape (TAL), which stretches along the border with India.[145] Together, these landscapes cover over 5 million hectares and are home to approximately 12 million people, including a diversity of ethnicities, cultures, and religions.[146] Climate change is already affecting people and ecosystems in CHAL and TAL, through droughts and irregular rainfall, which in turn lead to floods and landslides.[147] Alongside

climate change, the main threats to biodiversity in the targeted regions include the overharvesting of forest resources, wildfires, inappropriate infrastructure development, and human-wildlife conflict, among others. Climate impacts can lead to increased human pressure on ecosystems as people respond to displacement and food insecurity.[148]

There are significant data gaps in relation to gender equality in Nepal; however, the available information illustrates stark realities. In 2016, almost 40% of women aged 20–24 were married before they were 18.[149] Data from 2012 found that 48% of women had experienced violence at some point in their lives.[150] Though some progress has been made at the local government level, with 41% female representatives elected in the 2017 local elections, there are still major gaps at other levels, for example in the civil service, where women only represent 16%, and at the national level, where only 16% of ministers are women.[151] Recent analysis in CHAL and TAL determined that women and marginalised groups are underrepresented in decision-making structures for natural resource management (NRM).[152] It also found that women and girls are particularly vulnerable to GBV, including sexual violence and trafficking, during and after disasters.[153]

> Response

The Hariyo Ban Program, currently in its second phase, is implemented by the WWF, CARE, National Trust for Nature Conservation, and the Federation of Community Forestry Users in Nepal. The programme aims to increase ecological and community resilience in CHAL and TAL. With two interconnected objectives focusing on conservation and climate change adaptation, Hariyo Ban works with communities, government actors, and other stakeholders, with a particular focus on gender equality and social inclusion.

Activities promote biodiversity conservation, sustainable land management, sustainable livelihoods, and climate change adaptation, as well as governance. This includes actions to strengthen community-based NRM groups and efforts to reduce human-wildlife contact, as well as watershed management actions, such as gully stabilisation and natural regeneration of degraded land. From a livelihoods perspective, activities include training and microcredit programs for income-generating activities, and support for establishment/recovery of ecotourism enterprises. To address climate change, activities include climate vulnerability assessments and development and implementation of local adaptation plans, focusing on EbA actions.[154] The project also includes focused action to reduce vulnerability of people who face discrimination based on gender, caste and ethnicity.[155]

> Putting the Building Block Into Practice

Hariyo Ban placed a lot of emphasis on forest-dependent communities, as they play a key role in managing forests and therefore in biodiversity conservation. These communities are also experiencing the negative impacts of climate change on their livelihoods, making climate-resilient and ecosystem-based approaches essential to their well-being. Within these communities, women and marginalised people were identified as a focus to ensure that forest management efforts are equitable.[156]

More than 500 Community Learning and Action Centers (CLACs) were established for women to develop alternative livelihood activities, empowering women as change catalysts in their households, communities, and landscapes. Specific leadership training was provided for women and socially excluded groups to improve their capacities to take

on decision-making roles in NRM groups. These groups were also introduced to the concept of gender-responsive budgeting, and improved accountability mechanisms were put into place. Recognising the role of men in promoting gender equality, male leaders were identified and cultivated as champions for transforming social norms, and anti-GBV committees were formed within NRM groups.[157]

Policy engagement was also part of the strategy, and gender and social issues were brought forward in local development planning processes. In addition, the project has engaged with local planning processes for climate change adaptation and conservation, to support the government in integrating gender equality and social inclusion in the process, thereby contributing to the enabling environment for gender-responsive EbA going forward.[158]

> Impacts and Lessons Learned

The number of NRM groups with women in key positions in executive committees increased from 47% in 2013 to 70% in 2016, based on a sample of over 900 groups. Over the same period, the number of groups with representation of socially excluded groups in decision-making positions increased from 52% to 64%. Though these results are encouraging, an important lesson is that the quality of the participation also needs attention. For example, there is still a gender gap in the leadership of these committees, with only 15% female chairpersons. Barriers to women's leadership include illiteracy, lack of awareness of NRM laws and policies, and their domestic burden, which limit the time available for participation.[159]

The project has continued its work to overcome these and other barriers that inhibit equitable participation by women and socially marginalised groups in natural resource governance. The anti-GBV committees are coordinating with trained mediators from local governments to address incidents of violence, referring the cases to the judiciary committee when needed. Similarly, campaigns against child marriage have led to the practice being restricted by local officials in at least one ward.[160] Changes have also been observed in relation to household division of labour, with more contribution by men to domestic tasks. Livelihood support activities have also contributed to economic empowerment, with women and marginalised groups reporting significant increases in income.[161]

A key lesson from the project is the importance of engaging male champions and decision-makers, who played a critical role in promoting transformation of norms and behaviours to reduce GBV. Collective learning and action by women and marginalised groups—facilitated through the CLACs—was another essential factor that enabled more equitable participation in NRM structures. Providing technologies that save time and labour, such as drinking water systems and agricultural tools, can reduce girls' absences from school and free up women's time so they are more able to participate in community activities such as NRM groups.[162]

4.5 BUILDING BLOCK #5: STRUCTURES SET UP TO IMPLEMENT EBA ACTIONS ARE GENDER EQUITABLE AND INCLUSIVE

CASE EXAMPLE | Engaging Women in Coral Gardening for Climate Change Adaptation in Vanuatu

> Context

Vanuatu, located in the South Pacific, is particularly vulnerable to the adverse effects of climate change. The inhabitants of many islands are already suffering from sea level rise and extreme weather events such as hurricanes, droughts, heavy rainfall, floods, and their effects, which include, for example coastal inundation, soil nutrient loss, and coastal and hillside erosion. The predicted rise in sea levels, altered precipitation patterns, higher temperatures, and acidification of the ocean will exacerbate these risks in the coming decades.[163] This has profound impacts on people's livelihoods, particularly those engaged in agriculture, forestry, and fishing, who are thus dependent on natural resources.[164]

Coral reefs are particularly affected by climate change. Warming oceans are resulting in mass coral bleaching and coral death, ocean acidification, and invasive species. This, in turn, affects their role in coastal protection and the island ecosystem as well as important sectors such as fisheries and tourism.[165] Tourism is estimated to contribute 65% of Vanuatu's GDP, directly and indirectly.[166]

Although Vanuatu has adopted gender equality policies, significant challenges and gaps remain. According to UN Women, three in five women (60%) in relationships have experienced either physical or sexual violence by their husband or intimate partner. From an economic perspective, women account for 36% of total paid members of the formal employment sector and make up 39% of the non-agricultural workforce. Men occupy more than 60% of jobs in the private and public sector, although the number of women who have completed a senior secondary qualification is greater than men.[167]

Existing gender policies draw few linkages between ecosystems and assisting women and men to adapt to climate change. Vanuatu's policies are limited in promoting gender-equitable and inclusive governance processes. Governance and usage rights to particular natural resources are still mandated through traditional gender and *kastom* practices*—an area in which the application of gender-responsive EbA could be valuable.[168]

> Response

For small island countries like Vanuatu, coral reefs, livelihoods, income generation, and the impacts of climate change are inherently linked, requiring holistic solutions. To address the above challenges, GIZ partnered with the country's Nguna-Pele Marine and Land Protection Area Network (NPMLPAN) to implement a climate change adaptation project focused on coral gardening. The overall objective of the project aims to enable community-based climate change adaptation via an innovative and income-generating ecotourism activity that aims to restore the coral reefs.[169]

Coral gardening involves the collection of small pieces of broken coral, focusing on varieties that are particularly resilient to climate change impacts of bleaching and ocean acidification. These fragments are then attached to portable metal frames to create coral beds, which are strategically placed near popular snorkelling areas for tourists, as well as in sites destroyed by cyclones or other hazards.[170] In exchange for a financial sponsorship to the community, tourists have the opportunity to participate in the coral gardening project. Following a briefing on climate change and its impacts on coral reefs and how the project is helping, they snorkel together with island reef champions to collect the climate resistant coral fragments and attach them to the underwater gardening beds.[171] Throughout the project, special emphasis has been placed on empowering women and girls to proactively participate in marine conservation activities, a sector typically dominated by male fishermen and divers.[172]

> Putting the Building Block Into Practice

Women play an important role in managing natural resources in Vanuatu's coastal communities. Recognising this, the project aims to increase participation in conservation committees under the NPMLPAN. This has included targeted training and capacity development designed to encourage women to take on the role of resource champions in each of the committees.[173]

Though the marine environment is traditionally dominated by men, the project placed special emphasis on engaging women in coral gardening activities. In addition to harvesting the coral fragments and creating the coral beds, they learned skills in snorkelling, guiding tourists, and facilitating their participation in the coral gardening project. This has created new sources of income for women.[174]

In addition, disaggregated data was used for monitoring and evaluation purposes to better understand who is benefiting from EbA actions as well as to track any unintended negative effects. For example, monitoring indicated that coral fragments collected by women have a 75% survival rate while those handled by men have only a 55 % success rate, making them more effective coral gardeners.[175]

> Impacts and Lessons Learned

Overall, the coral gardening initiative has created new habitats for fish, thereby increasing the abundance of an important source of food while also enhancing the protection of the coastline from waves and cyclones. It has increased engagement with overseas visitors, providing new income flows for the communities and opening doors for other forms of climate cooperation (for example, through sponsorship of water supply systems). By creating a clear and specific role for women in the management and implementation of the coral gardening initiative, the project has opened up income-generating opportunities.[176]

The project has also succeeded in challenging existing perceptions about gender roles and responsibilities. Awareness and capacity-building initiatives have enabled women and girls to proactively participate in marine activity, a sector typically dominated by male fishers and divers. Women have been empowered through their participation in conservation committees of the NPMLPA network. These changes reflect a shift in social norms.[177]

* "Kastom" is a term common in southwestern Pacific Island communities and refers to traditional culture, religion, and institutions grounded in Indigenous concepts and principles (World Bank, 2013).

4.6 BUILDING BLOCK #6: PARTICIPATORY MONITORING AND EVALUATION SYSTEMS TRACK WHO IS BENEFITTING FROM EBA ACTIONS AND HOW

CASE EXAMPLE | Promoting Climate-Smart Agriculture for Resilient Food Production in Honduras

> Context

Honduras is particularly vulnerable to climate change due to its high exposure to climate-related hazards such as hurricanes, tropical storms, floods, droughts, and landslides that devastate crops and critical infrastructure. These types of events have caused significant setbacks in Honduras' development process. In addition, Honduras has a large rural population (50%), of which 65% live in poverty. Livelihoods in rural areas of Honduras depend on rainfed agriculture, which is predominantly prevalent in the southern and western regions of the country.[178] This area is known as the "Central American Dry Corridor," * a region that has been most affected by extreme hazards and where food insecurity has become a persistent issue. Climate risks in this area include recurrent droughts, excessive rains, and severe flooding, affecting agricultural production with greater intensity in degraded areas.[179]

Although Honduras has a National Gender Plan, gender inequality is cemented in a social and cultural understanding of a woman's role, and progress is not being made to the same level as in other countries. Honduras is one of only a handful of countries globally to have an absolute ban on abortion and emergency contraception, even in cases of rape, incest, and endangerment to the life or health of pregnant women. Comparing numbers from the UN Human Development Reports shows that Honduras made progress along the gender inequality index but dropped in the overall ranking from 121 to 132 out of 189 countries between 2010 and 2020.[180] Strong stereotypes, domestic violence, and femicide are among the main constraints to gender equality in the country.[181]

Unemployment and underemployment are pressing problems. Many who are employed work in precarious jobs, often earning below the minimum wage, with no social protection and with long workdays. This situation especially affects women—although they have a higher rate of participation in the labour force than men, they face a large gender pay gap. In addition, Honduras has experienced a considerable increase in emigration abroad, with most of the migrants being men. In the homes from which men have migrated, particularly in rural areas, women must take on both reproductive and productive roles, increasing their workload.[182]

* The Central American Dry Corridor is a tropical dry forest region on the Pacific Coast of Central America. This area extends from southern Mexico to Panama and is extremely vulnerable to climate change due to much of the population living in rural areas and in poverty, and thus dependent on grain crops for their livelihood (FAO, 2019).

> Response

The Climate-Smart Family Agriculture for Resilient Food Production Project (CSFA-RFP)[183] is being implemented in the "Dry Corridor" region and seeks to promote resilient food production in the face of climate change impacts among 600 families in the El Venado and Chiflador-Guaralape basins in Honduras. The population in the target area is 95% Indigenous Lenca communities, as well as a small population of Mestizo, another Indigenous group.[184] Project activities included capacity-building initiatives carried out at local and national levels to adopt climate-smart agricultural production systems in the value chains of honey, coffee, basic grains, and cattle ranching. The initiative is also promoting inclusive financing models (access to bank accounts and credit), inclusive businesses and commercialisation plans so that Indigenous families can be integrated into these value chains and be connected to local markets.[185] In addition, the project facilitated the formation of 20 savings and loan groups for women, exclusively managed by the participants to improve their economic empowerment and promote a culture of saving.[186]

In an effort to improve watershed governance, watershed organisations will be created to promote efficient use of water and carbon in farming systems and food production value chains. The goal is to create an enabling environment for resilient food production, while leveraging existing key actors. The project will help these organisations in formulating, approving, and implementing Comprehensive Watershed Management Plans and in institutionalising water governance mechanisms.[187] With women making up 35% of project participants, the team recognised that rural and Indigenous women suffer from a greater vulnerability to climate impacts, while at the same time playing a fundamental role in achieving food security for their families. This recognition led to interest in incorporating a gender perspective in the above-mentioned actions and the need to develop a gender action plan for the project.[188]

> Putting the Building Block Into Practice

To apply a gender lens and to inform the design of all activities, a number of training events on gender mainstreaming were held for the project team before the launch. This led to the application of specific tools, including gender-inclusive social mapping and a participatory gender analysis that included targeted interviews with women, support bodies for women, agricultural producers, and community leaders. These were used to design gender-responsive activities as well as to inform the design of a monitoring system and indicators that use gender-disaggregated data to monitor and evaluate inclusiveness and socio-economic empowerment of women.[189]

Integrating gender in the monitoring and evaluation system has helped to ensure that progress tracking and reporting capture gender-specific information (for example, the identification of female-headed households among the participants). Continued monitoring has led to a review of all project activities to further identify gender-blind activities and make adjustments so they are more transformative. For example, the review highlighted gender differences in information needs and preferred forms of communication, with women indicating that they preferred radio. This resulted in new approaches such as forming alliances with local radio stations to disseminate action messages directly to a female audience. Further, applying the gender mainstreaming tool has also helped the team to develop guiding questions to generate specific information regarding gender-related activities and to make them more visible in the progress reports.[190]

Monitoring processes also looked at women's participation in local governance structures, including the newly established Watershed Councils. The first elections resulted in 20% of the directors on the councils being women. This was attributed to the training and capacity building offered to women with leadership potential, as well as established partnerships with women's associations and other local organisations throughout the project.

> Impacts and Lessons Learned

Applying a gender analysis at the beginning has helped to inform all phases of the project, including the design of the monitoring and evaluation framework. It helped the project team to identify and design targeted gender-responsive activities as well as recognise activities that did not yet clearly show the differences and needs of women and men regarding their participation in the project. For example, knowing the type of material that women favour for training purposes allows the team to design more effective and inclusive workshops.

Mainstreaming a gender lens into all project activities has led to greater receptiveness, sensitivity, and knowledge in the project team and subsequently resulted in greater female project participation. This was verified through an increase in female-headed households' participation and an increase in the number of female beneficiaries registered in the baseline study from 75 to 272 women. About 272 women are actively participating in the climate-smart agricultural activities promoted by this project in different areas.

In addition, identifying and collecting disaggregated data for the monitoring, reporting and evaluation process of the project helped the project team better understand who is benefiting from EbA actions, as well as to ensure that gender-responsive activities deliver the intended benefits. It also enables tracking of gender-differentiated outcomes, with respect to representation, reduced vulnerability, and improved food security.[191]

→ 5. Taking it Forward: Recommendations for Gender-Responsive EbA

Building on the lessons learned from the case examples, the following are recommendations for EbA practitioners and funders to take gender-responsive approaches going forward:

- **Build capacity for gender analysis within the EbA community:** As noted, gender analysis—in an intersectional approach—is the foundation for gender-responsive planning. It's also fundamental for tracking differential impacts of EbA initiatives on people of different genders and social groups. Efforts are needed to help practitioners understand why this is essential for effectiveness and sustainability of EbA actions, as well as to enhance capacities to undertake gender analysis, using the range of tools that are already available to support this (see Annex 1 for some examples).

- **Engage gender experts in EbA planning, implementation, and monitoring and evaluation:** Though some basic knowledge and skills are needed to guide gender-responsive approaches, not all EbA practitioners need to become gender experts. Actors at all levels who are involved in the planning, implementation, and monitoring and evaluation of EbA should collaborate with gender experts, who may be working in governments, NGOs, or academic institutions. These experts can support the application of a gender lens in all stages of EbA initiatives and should have formal roles in project teams and coordination mechanisms.

- **Create opportunities for women to take on leadership roles:** To overcome issues of underrepresentation in natural resource governance and other relevant decision-making processes, a concerted effort is needed to create opportunities for women to meaningfully participate. This may involve targeted capacity development to take on leadership roles, influencing how, when, and where processes are organised to make it easier for women to be involved, and/or addressing other barriers such as childcare.

- **Allocate resources for participatory processes:** Meaningful stakeholder engagement is at the core of a gender-responsive approach. For this to be effective, EbA initiatives must allocate both time and resources for this engagement to occur. Investments in developing methodologies, tailoring communication approaches to meet the needs of different groups, and building gender-responsive facilitation skills may also be needed to support EbA actors to engage underrepresented voices in the process.

- **Invest in building the evidence base on EbA and gender equality:** More evidence is needed to demonstrate the value of gender-responsive approaches to EbA, to show that the outcomes are better than if gender inequality and social exclusion are not considered. Documentation and sharing of gender analyses, as well as the results of gender-responsive monitoring, evaluation, and learning processes, are essential to expand the evidence base and ensure that lessons are incorporated in approaches over time.

- **Engage with local governance systems to advocate for equitable representation:** EbA initiatives should be embedded in local governance systems to ensure their sustainability over time. This engagement with local authorities and decision-making mechanisms also presents an opportunity to advocate for equitable representation of women and marginalised groups. Increasing underrepresented voices in governance systems is one way to drive systemic change, toward more equitable distribution of benefits derived from ecosystem services over the longer term.

Annex

ANNEX 1: KEY RESOURCES ON GENDER AND CLIMATE CHANGE ADAPTATION

The following resources provide guidance on integrating gender considerations in climate change adaptation:

Building Resilience with Nature and Gender in the Eastern Caribbean: A Toolkit to Mainstream Ecosystem-Based Adaptation, Gender Equality & Social Inclusion

This toolkit was developed by the Organisation of Eastern Caribbean States. It provides an overview of EbA and gender equality and social inclusion issues, along with guidance on mainstreaming EbA and gender in resilience building.

Climate Vulnerability and Capacity Analysis (CVCA) Handbook: Informing Community-Based Adaptation, Resilience and Gender Equality

With a focus on gender equality, ecosystems, and inclusive governance, this handbook from CARE International provides guidance for participatory analysis of vulnerability to climate change and adaptive capacity at the community level.

Mainstreaming Gender in Green Climate Fund Projects

This manual is designed to guide mainstreaming of gender in projects funded by the Green Climate Fund (GCF), including gender analysis and the development of a gender action plan. It was developed by the GCF and UN Women.

From Guiding Principles to Action: Integrating a Gender-Responsive and Social Inclusive Approach Into Shared Resources, Joint Solutions (SRJS) Strategies and Results

Developed by IUCN for its SRJS initiative, this document provides guidance on context analysis and design of activities and indicators with a gender-responsive and socially inclusive approach. Though not focused on climate change adaptation, the process could inform EbA initiatives.

Toolkit for a Gender-Responsive Process to Formulate and Implement NAPs

This toolkit was developed by the NAP Global Network in collaboration with the Adaptation Committee and the Least Developed Countries Expert Group under the UNFCCC as a supplement to the UNFCCC Technical Guidelines for the NAP process. It provides guidance on integrating gender considerations throughout all the steps and enabling activities of the NAP process.

Gender-Transformative Climate Change Adaptation: Advancing Social Equality

This report was developed as background for the Global Commission on Adaptation. It provides an overview of gender and adaptation considerations for key systems and includes recommendations for adaptation action that is gender transformative.

ANNEX 2: KEY RESOURCES ON EBA

The following resources provide detailed conceptual overviews and helpful guidance on EbA in practice:

Making Ecosystem-Based Adaptation Effective: A Framework for Defining Qualification Criteria and Quality Standards

This guidance note developed by Friends of Ecosystem-based Adaptation sets out key elements, principles, criteria, and indicators for defining EbA and for strengthening its integration into policy frameworks and implementation measures at different levels.

Adaptation, Livelihoods and Ecosystems (ALivE) Planning Tool

ALivE is a computer-based EbA planning tool that can be used to understand and analyse the linkages among ecosystems, livelihoods, and climate change and plan effective EbA solutions. It was developed by UNEP, the

Global Environment Facility, IISD, IUCN and UNEP's International Ecosystem Management Partnership (UNEP-IEMP).

EbA Tools Navigator

The EbA Tools Navigator, developed by the International Institute for Environment and Development (IIED), UNEP-WCMC, IUCN, and GIZ, is a searchable database designed to help users find the best tools and methods to incorporate EbA in adaptation planning.

Emerging Lessons for Mainstreaming Ecosystem-based Adaptation

This study highlights success factors and entry points for mainstreaming EbA based on 16 practical case studies from Mexico, Peru, South Africa, the Philippines, and Viet Nam.

Ecosystem-Based Adaptation: A Handbook for EbA in Mountain, Dryland and Coastal Ecosystems

This handbook, developed by IIED, provides practical guidance for planning and implementing community-led EbA in three vulnerable ecosystems: mountains, drylands, and coastal areas.

Climate Risk Assessment for Ecosystem-based Adaptation

This guidebook, developed by GIZ, provides guidance on how to systematically consider ecosystem-based solutions in the context of climate risk assessments.

Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction and Supplementary Information

These guidelines offer concise information for policy-makers on why integrating ecosystem-based approaches into policy frameworks matters. They provide practical steps for planners and practitioners to design and implement effective strategies for EbA and DRR.

Governance for Ecosystem-Based Adaptation: Understanding the Diversity of Actors & Quality of Arrangements

This study by GIZ explores governance in EbA, providing a conceptual overview and discussing different types of governance, as well as barriers and opportunities.

Valuing the Benefits, Costs and Impacts of EbA Measures

This sourcebook assists adaptation planners in building awareness, knowledge, and capacity for valuing the costs, benefits and impacts of EbA measures in comparison (and combination) with grey measures. It combines information on valuation theory and methods with 40 real-world examples, as well as practical steps for commissioning, designing, and implementing EbA valuation studies.

Guidebook for Monitoring and Evaluating EbA Interventions

This is a practical guide for planners and practitioners to better understand the outcomes and impacts of on-the-ground EbA projects, working with and enhancing nature to reduce the negative impacts of climate change on people.

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