



GENDER, VULNERABILITY, AND CLIMATE CHANGE ADAPTATION.

Investigating how gender equality is integrated within climate change adaptation governance in Bangladesh.

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*Dedicated to the memory of
Irene Dankelman –
a pioneer in the field of
gender and environment.*

Gender, vulnerability, and climate change adaptation.

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Glossary

BCCSAP – Bangladesh Climate Change Strategy and Action Plan
ccGAP – Climate Change and Gender Action Plan

ICCCAD – International Center for Climate Change and Development
IG – the Integrative Governance

NAPA – The National Adaptation Programme of Action

Summary

Adapting to inevitable catastrophic effects of climatic change might be one of the greatest challenges of the 21st century. The forthcoming impacts of climate change, particularly the increasing frequency and intensity of extreme natural disasters affecting the livelihoods of women not only hinder the development activities, but also expand direct vulnerability to women. Power and gender inequalities can mediate climate change adaptation. Women are disproportionately affected by climate change compared to men. Ignoring gender aspects in climate change adaptation strategies can reduce global capacity for adaptation.

These challenges of adaptation are brought to the surface in Bangladesh, where actions, cultural customs and practices often work against women's capacity to adapt. Recognizing the importance for integration between climate change adaptation, the government of Bangladesh facilitated preparation of the Climate Change and Gender Action Plan (ccGAP) in 2013 (IUCN, 2013). By applying the Integrative Governance framework, and conducting interviews, this thesis answers the following: *How does climate change adaptation governance incorporate gender equality at the national level in Bangladesh?*

This thesis finds that the incorporation of gender equality within climate change adaptation governance at the national level in Bangladesh is more weak than effective. Findings suggest that gender equality is a donor driven concept, without prioritization within climate change adaptation governance. Rather it is integrated as a crosscutting issue. There is considerable documented attention on gender equality in climate change adaptation instruments. However, gender and related activities often remain in limited profile and women continue to be viewed with a vulnerability lens rather than from a resilience perspective.

There are several interconnected narratives at stake in Bangladesh which may explain insufficient incorporation of gender in the climate change adaptation governance. Firstly, International Development Organizations have brought to the country the discourse of gender equity as part of a developing and modernization strategy. Secondly, Bangladesh is deeply rooted in patriarchal culture where women are agentless actors in terms of climate change adaptation, who are dependent on men. This thesis finds that it matters how vulnerable and marginalized groups are framed in the climate change strategies rather than just to prioritize their inclusion and mainstreaming. Therefore, when examining gendered vulnerability, it is essential to focus on women's agency as key to examine their adaptive capacity. Policy makers should create enabling environment with and for women to support their agency in the climate change adaptation and increase synergies between global and national actors and NGOs to improve implementation of ccGAP.

1. Introduction

The outcome of climate change will be experienced by everyone, but it will not affect all people equally. Capacity to mitigate climate change and the effectiveness of adaptation solutions will vary tremendously within and between countries, the significant differences in the capacity to adapt, the complication of poverty and disadvantage, and the differential experiences of women and men, the old and the young, and the rural and urban facing similar circumstances with very different resources, capacity, and resilience (Alston, 2017). The Intergovernmental Panel on Climate Change (IPCC) has analyzed the world's adaptation capacity to these imminent impacts of climate change and found that it is not equally dispersed among developed and developing nations (Smit et al., 2001). The majority of developing countries are located in tropical and sub-tropical regions – areas that climate change experts have identified as regions to be worst affected (Postnote, 2006). Those who are vulnerable, with limited access to assets, are already facing obstacles in adapting to climate change. Those most vulnerable are identified by gender, poverty, educational disadvantage, reduced service access, lack of employment options and other aspects of socio-economic disadvantage.

In Bangladesh, located on the largest delta in the world, climate change is exacerbating the scale, regularity, and intensity of natural events. Droughts are considered to be longer, temperatures more extreme, storm surges more intrusive, salinity intrusions are reaching further interior of the country, flooding is becoming more extreme and monsoonal rains are becoming more hazardous (Alston, 2017). The negative impacts of climate change are threatening the food security, livelihoods, and existence of 160 million people in Bangladesh, especially poor women, the elderly, people with disabilities, ethnic minorities, and growing children. These climate change impacts bring challenges of adaptation to the surface in Bangladesh. The government has tried to tackle climate change by developing the UN-mandated National Adaptation Programme of Action (NAPA) in 2005. Subsequently, the government has also developed a Bangladesh Climate Change Strategy and Action Plan (BCCSAP) (Hardee & Mutunga, 2009).

Although women in Bangladesh have a significant role to play in climate change adaptation actions, cultural customs and practices often work against this. Women are subject to an extensively sanctioned and rigorously imposed hegemonic masculinity. Men dominate land ownership, decision-making roles, production, leadership, and trade. Women are inhibited

through restrictions on movement, customs, laws, the dominant Islamic religion, a general acceptance of violence against women, and traditions such as dowry and early marriage (Alston, 2017). Consequently, drought and floods, extreme weather events like cyclones, and food and water insecurity affect women and men differently.

Women are one of the vulnerable groups especially affected by the changing environment. The forthcoming impacts of climate change, particularly the increasing frequency and intensity of extreme natural disasters affecting agriculture, water resources, and the livelihoods of women not only hinder the development activities, but also expand direct vulnerability to women (Resurrección, 2019). Research points out that women are more affected by the impacts of climate change compared to men due to social institutions, behavioral norms and the physiological attributes (Shabib & Khan, 2014). There is a major care imbalance between women and men, because women are responsible for household management and raising children. Extreme events increase women's domestic responsibilities, particularly when they must take care of injured or sick family members. This limits their mobility to receive emergency resources, such as food, fuel, and public services. (Reckien et al., 2017; Alber et al., 2017). As climate extremes destroy ecosystems, the amount of caregiving by women and girls increases, resulting in time and vitality shortages that lead to loss of education and income generation opportunities (UN Women, 2009). These examples make women disproportionately affected by climate change, a maladaptive result, and any related adaptation efforts are less likely to succeed (FAO, 2011).

Gender is defined as the social processes and relations that create people's identity as women or men at a specific time and place in the world (Alston, 2017). As a result, power and gender inequalities can mediate climate change adaptation. However, gendered roles and responsibilities are assumed as normal, they are accepted and continue unaddressed in adaptation programs. According to Enarson (2012), gender inequalities, environmental degradation, and vulnerability to disaster are so strongly linked that ignoring gender risks perpetuating degradation and reducing our capacity for adaptation. Thus, all non-gender-oriented climate change policies risk being ineffective from the start.

Recognizing the importance for integration between climate change adaptation and gender and considering gender issues in development initiatives to increase resilience, the government of Bangladesh facilitated preparation of the Climate Change and Gender Action Plan (ccGAP) in

2013 (IUCN, 2013). It was the first serious attempt to integrate the nexus of climate change and gender in Bangladesh. The ccGAP was prepared by the Ministry of Environment and Forests and technical support from International Union for Conservation of Nature (IUCN). The ccGAP emphasized the Government's intention to empower women and respond to the needs of the often invisible 'other half' of the population in the context of climate change in Bangladesh. (MoEF, 2013). This plan provides directions on policy issues and initiatives that need to be considered by government and development practitioners, in collaboration with different institutions to address climate change in a gender sensitive manner. However, the ccGAP faces some structural challenges it must overcome to be successful. In 2021, the International Centre for Climate Change and Development (ICCCAD) and UN Women Bangladesh reviewed the implementation of ccGAP. The review shows that while there is a gender sensitivity in the activities for climate resilience, the way in which gender is addressed is lacking an intersectional approach or a way to create an enabling environment (ICCCAD, 2021).

To bring about a paradigm shift towards climate resilient development pathways, globally and at national level, all climate change adaptation actions need to equally pursue broader environmental, social, economic, and political benefits in a gender-responsive manner (ICCCAD, 2020). Thus, if we ever want to address climate change properly, especially for the most vulnerable, we need an integrated social equity and climate change adaptation program. As a first attempt to do so has occurred in Bangladesh, there is a need to assess the level of integration, relationship between instruments, and its performance. The concept of Integrative Governance (IG) (Visseren-Hamakers, 2015) points out that *many policies and rules at different levels of governance influence one another whether they tackle the same issues or not*. However, the policymakers tend to create new policies and governance systems totally separated from each other, without any relations between them. The IG framework allows to establish if ccGAP is another separated instrument without any relationship or it puts a light on newly created climate change adaptation policies.

1.1. Problem statement

To achieve effective global climate change adaptation, gender equality gender equality and climate changes adaptations plans need to be integrated. Alston (2017) argues for forwarding policy proposals for recognizing women's active contribution and supporting gender equality

as a critical strategy in global adaptation to climate challenges. However, the classic problems of inclusivity, the ability for global climate organizations to understand local concerns, and these cultural and political economic roots that drive gender inequality, create lasting problems that can undermine these solutions. Therefore, there is a necessity to better understand gender equality dimension within climate change adaptation strategies.

Work in Bangladesh raises important questions about the role of incorporation of women in climate change governance, such as women empowerment, as an underutilized solution for climate adaptation. Women empowerment programs in Bangladesh strive to educate about gender inequalities, expand freedom of choice, increase access to and control over resources, and change the structures and institutions that generate gender discrimination and inequality (Resurrección, 2019). However, scholars have identified that women empowerment and adaptation strategies are often performed in a way that increases social inequalities. For example, participation is often portrayed as increasing the ‘empowerment’ of women, but recent evidence suggests that many women are disempowered and marginalized in the process (Cornwall 2000; Agarwal, 2001). Sultana (2009), based on research on water management projects in Bangladesh, points out that when women are invited to participate, they are still *“seen to destabilize the social norms if they speak up too much or against any older man”* (p.13). Looking at the climate adaptation policies in Bangladesh (e.g., NAPA and BCCSAP), it can be seen that attention is given to the vulnerability of women. According to Nhamo (2014) and Acosta et al., (2020) this particular emphasis can influence the generalization of women as passive victims of climate change. Alternatively, national policy should highlight the agency of women. Otherwise, it can lead to negative consequences on their development. Therefore, it’s important to research how women and their issues are addressed and represented in relevant sectors after 10 years of publishing ccGAP.

Publishing ccGAP in a patriarchal society such as Bangladesh, raises interesting questions about incorporation of gender equality in the climate adaptation strategies. In the first place, why was its publication needed? Which actors were motivated enough to create the action plan and why? What is the background of the design? Finally, what is the relationship between other instruments managing climate adaptation governance and how can it be explained? As previous mentioned, including gender discourse in climate adaptation governance is not always enough to be successful (Cornwall 2000; Agarwal, 2001). For example, implementation of ccGAP is not sufficient (ICCCAD, 2021). Therefore, there is a need to analyze the system as a whole: an

interconnected system of relationships between policies to investigate room for improvement. Researching implementation of ccGAP can provide insights about the level of prioritization of gender equality within stakeholders, their interests, motivation, obstacles, and discourses which shape the performance and relationship between gender and climate change adaptation.

1.2. Research aim and research questions

This thesis aims to better understand how gender is incorporated within climate change adaptation governance at the national level in Bangladesh. Through the study, the following research question will be answered:

How does climate change adaptation governance incorporate gender equality at the national level in Bangladesh?

To answer these questions, three sub-questions are articulated:

Sub-question 1: Which governance instruments integrate gender equality in climate change adaptation policies?

Sub-question 2: What is the relationship between ccGAP and the climate change adaptation instrument (BCCSAP)?

Sub-question 3: To what extent is gender equality implemented in the climate change adaptation policies?

Sub-question 4: How do the actors, discourses, interests, and systemic factors explain the gender incorporation within the climate change adaptation governance?

1.3. Scientific and societal relevance of the proposed research

The recent study titled “*Climate change adaptation in Bangladesh: Current practices, challenges and the way forward*” (Chowdhury et al., 2022) reviewed climate change impact and adaptation challenges and presents the concerns that must be addressed in the future. The research concludes that “*the adaptive capacity of women, in particular, should be prioritized from social, financial, political, and cultural perspectives*” (5). Scholars recommend that further research on adaptation to climate change for Bangladesh “*can be strengthened by studying gender issues, as well as policy and governance implication*”(5). Following this

recommendation, this thesis will investigate whether gender equality is integrated within climate change adaptation governance in Bangladesh.

Bangladeshi women are the victims of climate change and, at the same time, important agents for household and community-led response to climate change. Although women play a key role in household and community disaster recovery, discussions on the impact of disasters and the recovery support favor livelihoods dominated by men. The policy assumption remains that women benefit once men's livelihoods are secured. This assumption is not well verified because of limited research on how women's own lives and livelihoods are affected by climate change and disasters (Alston, 2014). Moreover, Tanjeela et al. (2018) argue that the positive roles that women play, the challenges that they face, and the benefits that they gain in responding to the enormous challenges that climate change presents, particularly in vulnerable countries and communities, have not been well studied. Women, through their everyday work, are central to adaptation and sustainable practices. A failure to recognize these risks endorses non-sustainable coping practices. This research contributes to the scientific debate about governance of gender equality and climate adaptation that will only increase in salience.

Applying the IG framework enables an enhanced understanding of the multiple and intertwined explanations of the relationships and performance of governance systems, allowing academics and practitioners to develop more realistic, durable solutions both in the shorter and longer term (Visseren-Hamakers, 2018a, 2018b). The framework is meant to *"contribute to a better understanding of the relationships between governance instruments or systems, which provides a solid foundation for efforts to enhance governance performance"* (Visseren-Hamakers, 2018a, 2018b).

Scholars working on the climate adaptation studies in Bangladesh, claim that *"integration of policies is one of the most significant challenges for ensuring proper adaptation"* (Chowdhury & Hossen, 2017:5). Therefore, applying the IG framework might provide interesting insights to increase adaptation capability. In addition, such a framework is urgently needed, given many governance instruments developed on specific issues at the global, national, and local levels, which are not only influencing each other, but are also being influenced by those from other governance systems. As Visseren-Hamakers (2018a: 1391) explicitly states: *"there is a need to pay explicit attention to relationships governance systems, especially in achieving the*

transformative change needed for sustainable development". Perhaps the clearest example of this recognition is the United Nations (UN) 2030 Agenda for Sustainable Development, in which the international community explicitly acknowledges that *"the interlinkages and integrated nature of the Sustainable Development Goals (SDGs) are of crucial importance"*, and that their indivisible nature is key to the transformation needed to achieve the goals (UN, 2015, as cited in Visseren-Hamakers, 2018a: 1392). Therefore, the IG framework can be seen as a starting point for, and an integral part of, the transformative change needed for sustainable development Visseren-Hamakers (2018).

However, Visseren-Hamakers (2018a) acknowledges that IG framework, and especially some clusters of explanatory factors, have been criticized for their lack of practical ways forward (White et al., 2016, as cited in Visseren-Hamakers, 2018a) . Therefore, this paper will contribute to the practical scientific knowledge about applying the IG framework by conducting research on a specific case study in Bangladesh and the national level of governance. According to Visseren-Hamakers (2018a: 1392) *"the insights generated by analyses applying the framework can be used to enhance coordination among various efforts, or, in cases where the relationships between instruments are more contentious, inform negotiations for better managing trade-offs between various societal goals"*. This output might contribute to developing more effective collaborations between stakeholders in Bangladesh. Moreover, the research will provide scientific insights which help to improve the performance of ICCCAD in their gender mainstreaming programs and advocating for gender and climate change policies in Bangladesh.

Furthermore, ccGAP is an interesting example of an instrument which combines areas of interest from two governance systems: climate change adaptation and gender. There was no prior research which applied the IG framework to instruments which overlap two governance systems. Therefore, this research could contribute to the discussion of new applications of the IG framework and/or provide interesting insights, lessons about new dimensions of governance integration.

2. Literature review and conceptual framework

The following literature review will include sections on climate change adaptation within development discourse, gender mainstreaming in policy, gender equality in Bangladesh and

Integrative Governance. The first part of the literature review is about power relations in global development studies, its critiques, and the role of climate adaptation in development strategies. The second part is about general practices of incorporating a gender component in the climate change context. This literature is relevant as it will provide an understanding of the ways in which gender has been integrated in the policy so far, and potential challenges of the process. The third part will delve into Bangladesh and describing women's life in this country. The fourth body of literature will help place this research in discussion about Integrative Governance and its specifications.

2.1. Climate change adaptation in development strategies

Before looking at the integration of gender equality in climate change adaptation strategies, it is important to elaborate on the connection between climate change adaptation and development studies. Its connection with vulnerability seems to be crucial in this research.

After World War II, “development”, defined as interventions and policymaking in the countries in the Global South, gained considerable attention. Since then, the key Western international actors, have perceived development to promote peace. Furthermore, it has been a tool to promote power of North nations, and present “better”, modern solutions and concepts that Global South should follow. Following decolonization in Asia and Africa, social and economic modernization took place, aiming to allow the South to “catch up” with Western standards. In the 1950s and 1960, a new field of Development Studies emerged called “modernization theory”. It described that while a rapid transformation can be seen towards modern societies, based on learning from “experiences” of the North, development can mark societies and regions as “backwards” (Williams et al., 2009). Whole cultures are seen as barriers to follow the modernization brought from developed countries. It can result in seeing developing countries in need of “correction” by outside force or agency (Williams et al., 2009).

Interestingly, there are close linkages between development and climate change adaptation. However, these two concepts have been managed separately and in different arenas for a long time.

Climate change adaptation is defined as “*adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits*

beneficial opportunities” (IPCC, 2007 as cited in Ayeres, 2013, p:1). The concept has occurred as a reaction to climate change impacts as managed under the United Nations Framework Convention on Climate Change (UNFCCC). During the Earth Summit in 1992, the UNFCCC adopted the global framework for intergovernmental efforts to manage climate change (Ayeres et al., 2013). At this point, the adaptation framework was understood as technology-based solutions (Klein, 2008), without the social aspects of vulnerability and its roots (Sen, 1999). In 1987 development stakeholders created a shift in the climate change adaptation paradigm when the *Brundtland Report Our Common Future* (WCED, 1987) defined climate change as a major environmental challenge facing development (Ayers & Dodman, 2010). Since then, the research community and main stakeholders started applying theories of social vulnerability, including gender, to climate change adaptation (Adger & Kelly, 1999). Nowadays, development and adaptation are perceived as coexisting strategies in climate and development fields (IPCC,2017; Olhoff & Schaer, 2010).

Bangladesh is defined as one of the ‘Least Developed Countries’, which is also facing extreme impacts of climate change (Huq & Ayeres, 2008). According to Ayeres et al., (2013, p: 44) *“Bangladesh has approached adaptation mainstreaming both from a climate change perspective, through the development of climate change specific plans, programs, and institutions that address developmental aspects of vulnerability; and also from a development perspective, integrating climate risk into development programs and policies to help build broader resilience across sectors.”* Regarding more specific planning for climate change adaptation, as one of the first countries, Bangladesh has also developed its UN-mandated National Adaptation Programme of Action (NAPA), a document that spells out climate change adaptation measures. Subsequently, the government has also developed a Bangladesh Climate Change Strategy and Action Plan (BCCSAP) detailing strategic actions for climate change mitigation and adaptation (Hardee & Mutunga, 2009). The NAPA considers urgent and immediate priorities for adaptation, while the BCCSAP is more comprehensive, with medium- and long-term actions on emissions reduction, adaptation, mitigation, technology development and transfer, and financing. In terms of the linkages of development and climate change adaptation, it is worth mentioning that both NAPA and BCCSAP were supported by fundings from donors’ organizations.

Several studies have investigated donors-related power dynamics in the climate change policies in Bangladesh. For example, Falzon (2021) urges the importance of redistributing power

dynamics in the climate change adaptation field while donors have more power in the decision-making process than community members. Sovacool et al. (2015) claim that donors were funding the projects for climate change adaptation who already received a decent amount of money, whereas the most vulnerable economic or social sectors were still ignored. In another study, the “Anti-politics of climate change” (Paprocki, 2021), describes prevalence of combining climate change adaptation interventions with development opportunities, and acknowledge that most donors and development agencies support this point of view. According to Paprocki, this point of view is based on neoliberalism and uses climate change adaptation as a money-making strategy. Paprocki (2018) discussed that climate change adaptation is reframed as an opportunity for development and growth as well.

2.2. Climate change adaptation, from command and control to consent and gender sensitivity

Adaptation is often identified as best practice in response to the effects of climate change, especially in highly populated coastal areas in developing countries (Bari et al., 2022). Climate change adaptation (CCA) projects before 2010 were dominated by a ‘command and control’ approach, resulting in technocentric solutions driven by external entities such as flooding protection, dikes etc. (Shammin, Wang & Sosland, 2022). But these projects did not have the wanted impact. According to Shammin, Haque and Faisal (2022) projects prior to 2010 suffered from an ‘adaptation gap’: *“the difference between the actual level of adaptation and the level required to achieve a societal goal, reflecting resource limitations and conflicting priorities”* (p.30). The response unfolded in initiatives adopting a participatory approach; placing community engagement at the center of debate.

The term community-based adaptation (CBA) became widely used to refer to this new form of CCA. CBA strategies address those people likely to be worst affected by climate change, in particular marginalized communities within developing countries. The definition of CBA by Reid (2009) is currently the most cited and used in practice; *“a community-led process, based on community’s priorities, needs, knowledge, and capacities, which should empower people to plan for and cope with the impacts of climate change”* (p.13). According to this definition, adaptation is a process, through which vulnerable communities can actively be involved in adaptation planning and its implementation. CBA allows individuals to receive necessary resources and information over time. The aim of CBA is to empower the most vulnerable by

creating circumstances enabling self-organization and access to the control of livelihood resources, basic public services, and linking them with relevant decision-making institutions such as local government (Reid et al. 2009a; Dumaru 2010). As a result, they would be able to build the capacity to adjust their lives and livelihoods by themselves (Masud-All-Kamal et al., 2021).

Knowledge plays a key role in community-based climate adaptation. CBA approaches to climate change are grounded in cultural norms and aim to identify and increase locally appropriate adaptation knowledge and techniques (Ayers and Forsyth, 2009). Ayers and Forsyth (2009) mention that any conception needs to be placed within the context of resilience, vulnerability, and risk reduction. The place-based initiatives that developed consider “*The relationships between existing heterogeneity of communities and issues of power, capacity and governance*” as the root causes of climate vulnerabilities (Ayers and Forsyth, 2009). Therefore, non-equal distribution of power, knowledge, and participation within communities between women and men, rooted in the culture, can drive ineffective CBA.

According to Adhikari et al. (2012), climate change affects everyone regardless of their socioeconomic status. However, it is crucial to ensure the involvement of both men and women equally in the development of adaptation options (Adhikari et al., 2012). It is necessary to identify gender-specific aspects of risk and vulnerability (Oxfam, 2010) and participatory action research to understand and address the differential vulnerability of poor rural women. The scholars on CBA (Ayers, 2009; Reid et al. 2009) argue that participatory gender analysis “*should be an integral part of adaptation planning and linking communities to climate information and services*” (Adhikari et al. 2012.p.10).

2.2.1. Gender, vulnerability, and resilience to climate change

Scholars researching links between gender and climate change have shown that women in the Global South are especially sensitive to climate change impacts and their vulnerability is associated with gender and social norms (Dankelman, 2010). Previous research has highlighted that disaster experiences are gendered and that especially women suffer under the (after) effects of climate events. For example, women are more likely to die in a natural disaster (Neumayer & Pluemper 2007) and experience violence during and after disasters, and to be more restricted by their responsibilities for the elderly and children (Enarson 2009,

2006; Dankelman & Jansen 2010; Alston et al. 2011). Moreover, women tend to live in deprivation, have no rights to land and resources, have less control over production and income, less training, less access to governmental support, and fewer positions on decision-making bodies (Dankelman 2010). It is thus important to identify gender-sensitive strategies to respond to the environmental and humanitarian crises caused by climate change.

Effective adaptation processes to climate change are based on the resilience of affected citizens and communities. Resilience is defined by the IPCC (2007) as the ability to integrate changes in a beneficial way. According to Tschakert et al. (2011), this is impossible if people are left without support. Change appears risky, if conventional ways of living appear safer and if institutional supports are not provided. In terms of climate events, resilience requires integrative social support and transformation of cultural practices, livelihood strategies, resource use, and of institutional structures and functions. These actions should be sensitive to gender equality and empower women and girls in the process of successful adaptation (Pelling, 2011). As Tanjeela & Rutherford (2018) write: “*Climate is not a gender-neutral phenomenon*” (p.2). Gender has a big influence on resilience to the impact of climate change, since gender norms and inequalities shape people’s ability to adapt and innovate (Lau et al., 2021). There is eye-opening evidence that women are more constrained during and after climate crises. UN WomenWatch notes that, in many contexts,

women are more vulnerable to the effects of climate change than men [and] are especially vulnerable when they are highly dependent on local natural resources for their livelihood. Those charged with the responsibility to secure water, food and fuel for cooking and heating face the greatest challenges [and] when coupled with unequal access to resources and to decision-making processes, limited mobility places women in rural areas in a position where they are disproportionately affected by climate change.
(2011: 1)

Vulnerability in the face of climate change is defined as the capacity ‘anticipate, cope with, resist and recover from the impact of a natural hazard’ (Kelly and Adjer 2009: 163). It includes factors that in combination create a lack of capacity to act effectively against, for example, natural disasters. Gender is one of the most significant indicators of vulnerability (Alston 2013; Lane and McNaught 2009; FAO, 2007b; Neumayer and Pluemper 2007). Gender, defined by Enarson, (2012: 23–26) is a “*marker of difference, identity and inequalities; it is relational – existing only in relation to others; it is socially constructed and plays out at individual and*

institutional levels; it is reinforced through social practices, and is forever dynamic". In terms of crisis situations, gender vulnerability is intensified by a loss of control over natural resources, access to information, employment and decision making, time poverty, failure in education, and the increased possibility of unsafe conditions (Dankelman, 2010).

On the other hand, researchers have been criticizing excessive focus on women's vulnerability in the climate change agenda. Ampaire et al. (2019), based on their research in Uganda, argue that the prominent image of women as a vulnerable group in policy documents is problematic, because it potentially contributes to the continuation of victimizing stereotypes. Moreover, the authors argue that it does not take into consideration the active role of women in climate adaptation. According to Rao et al., (2019), while studying gendered vulnerability, it is crucial to focus on women's agency as part of an analyses about their adaptive capacity, which is still not well-studied. It does not mean that one has to deny women's vulnerability, instead it is essential to consider that vulnerability makes people able to discover unique ways of surviving. For example, women are forced to look for alternative resources of self-empowerment, collective agency, and grassroots types of organization to overcome the impacts of gendered vulnerability (Landau, 2020; Butler et al., 2016).

The general re-creation of gender inequalities contributes to the more considerable vulnerability of women in climate change impacts. This vulnerability is not made by climate events – it is worsened by them. Consequently, there is a much more complex set of circumstances, linking existing gender inequalities *"such as reduced access to land, resources and decision-making, constraints on freedom of movement, lower income-generation capacity, disproportionate caring roles, traditional cultural customs and gender-blind policies"* (Alston, 2017, p.10). A more refined explanation of these complexities is needed to open the possibility of greater gender equality, a more equitable distribution of resources, and to bring greater resilience in the face of climate challenges. Thus, according to Dankelman (2010), it is important to identify gender-sensitive strategies to respond to the environmental and humanitarian crises caused by climate change.

2.2.2. Gender equality and climate change adaptation, from mainstreaming to transformation

One of the ways to integrate gender equality in climate change adaptation strategies is gender mainstreaming (Acosta et al., 2020). The essence of gender mainstreaming is to *“bring about gender equality, by exposing gender as a socially constructed phenomenon and making transparent new possibilities for reshaped, and more equitable gender arrangements”* (Alston, 2014, p. 289). Gender mainstreaming can be seen as an effective strategy to promote gender problems in the policies. However, Acosta et al. (2020) have identified an implementation gap in climate change adaptation policies in Uganda focusing on gender mainstreaming. Scholars (Acosta et al., 2020) conclude that as the concept was adopted on Beijing Platform Action it fails to address cultural and social barriers in local context. Even though scholars (Acosta et al., 2020; Allwood, 2013) have presented some cases where gender was mainstreamed, unintended consequences appeared as part of the policy-making process that reflect gendered assumptions. Moreover, while gender mainstreaming has been rapidly adopted around the world, feminist scholars note that greater gender equality has not been noticeable (Alston, 2014).

According to Resurrección et al. (2019) there is not real change unless the power dynamics defined by patriarchy, privilege, and prejudice are transformed. Gender transformative adaptation aims to transform the power dynamics and structures that serve to reinforce social and gendered inequalities (Hillebrand, et al, 2015). It involves adjustments of individuals and groups to reduce their vulnerabilities in a particular context as a response to climate change, together with other socio-economic and political stressors (Resurrección et al., 2019).

Hackfort and Burchardt (2016) also have a critical view on studies of gender in climate adaptation, stating that many studies are either gender-blind or they reproduce an essentialist discourse of women as vulnerable or a victim. Lau et al. (2021) also say that there are challenges of gender assumptions in global climate change policy. These assumptions include that women are caring and connected to the environment, women are a homogenous and vulnerable group, gender equality is a women’s issue and gender equality is a numbers game. These assumptions lead to strategies with unintended and counterproductive consequences. Lau et al. (2021) argue for a deeper context-specific analysis, considering intersectional vulnerability and need, and creating strategies that let women and men participate in projects in meaningful ways that support their rights, voice, and influence. Similarly, Hackfort and Burchardt (2018) argue for a relational analysis of gender, vulnerability, and adaptation, that

looks at both systemic factors that shape the individual and collective scope of action, as well as more focus on the specific identity of the subjects (Hackfort & Burchardt, 2018).

2.3. Women and climate change in Bangladesh

According to scholars, gender vulnerability to climate challenges is very evident in Bangladesh (Oxfam GB & Naripad 2011; Advancing Public Interest Trust (APIT) 2009; Cannon 2002). The embodiment of social practices is very visible in the Bangladeshi setting (Balk, 1997). For example, there are a scope of embodied customs that may mediate the ability of women in Bangladesh to respond effectively to climate crises. Married Bangladeshi women wear saris, an item of clothing that restricts movement (Balk, 1997). They wear a nose ring standing for their husband's family symbol. During and after disasters, this covering of the female body is difficult as clothing can limit movement, their ability to come to shelters may be hampered by a lack of a male presence, and shelters may be unsafe. In post-disaster time they may encounter a lack of access to family planning support, undesirable pregnancies, a lack of hygiene products, and risky sanitation (Alston, 2017).

Previous work with Bangladeshi women points out that during disasters they have to deal with a lack of access to information, food, safe water, health care facilities, education, housing and ownership, land and inheritance, livelihood strategies, participation in decision-making, and protection (Nasreen, 2008). Alston (2017) conducted research in the rural communities in Bangladesh where women were not able *“to go to shelters without the permission of their husbands; not receiving early warnings; there being no women's toilets in shelters; the threat of violence; a lack of privacy; not being consulted or provided with information; and being responsible for ongoing care work and income generation”* (p. 11).

By being more often malnourished and anemic, women in Bangladesh are less able to cope with the effects of climate disasters than men (Shabib & Khan, 2014). Especially pregnant and lactating women are at risk due to greater food and water needs. In times of a disaster, a decline in health services and a lack of hygiene supplies in relief shelters are especially affecting pregnant, lactating, and menstruating women (Shabib & Khan, 2014). The IUCN (n.d.) describe further limiting factors for Bangladeshi women for coping with climate disasters:

“1. Limited access to early warning information; 2. lack of preparedness; 3. Limited access to critical services and facilities (i.e., shelters with adequate spaces for women

and with proper sanitation); 4. Lack of access to financial security (i.e., loans provided to women often have highly unfavorable repayment conditions); 5. Limited market and communication access; 6. Limited access to decision-making arenas; 7. Social expectations of “appropriateness” for women’s actions; 8. Increased responsibility to the household; 9. Difficulty in accessing relief goods; and 10. Psycho-physical constraints.” (p.6)

This highlights the marginalized position of women due to social, economic, and physical reasons as well as a lack of political power. The prevailing gender power relations is often seen as a determining factor for the outcomes of climate change (Tanjeela & Rutherford, 2018).

While it is generally known and researched that those women in Bangladesh are especially vulnerable to the effects of climate events, this knowledge has had only limited repercussions in climate adaptation policies. Shabib and Khan (2014) found that while women are part of the adaptation discourse in Bangladesh, gender-specific considerations are not being promoted and mainstreamed in policies and responses to climate change. While climate change policies seem to generally recognize women as vulnerable, Shabib and Khan (2014) found that there are no further operational responses. In return, policies that are related to gender and reproductive health seem to not consider climate change except for the brief mentioning of women’s role in environmental management or women’s vulnerability in natural disasters. In their analysis of climate adaptation policies in Bangladesh, Shabib and Khan (2014) note a shift in approach from top-down initiatives in the 1960 to the 1980s to more current community-based approaches which are facilitated by for example the ‘Network for Information, Response and Preparedness Activities in Disaster’ and the ‘National Alliance for Risk Reduction and Response Initiative’.

However, Shabib and Khan (2014) also saw a lack in collaboration on gender-specific issues and the exclusion of women’s groups, which might indicate that gender is not prioritized in these approaches. The document, that tries to incorporate and promote gender equality with climate change adaptation context, is the national Climate Change and Gender Action Plan (ccGAP). It was developed in 2013 with an aim to ensure gender equality and social inclusion into climate change related policies, strategies, and interventions. Therefore, there is a need to explore how gender equality is incorporated in climate change adaptation governance 10 years

after publishing the national ccGAP in 2013. With help of the IG framework, this thesis will explore how gender equality is integrated within climate change adaptation governance.

2.4. Integrative Governance framework

This section will explain why applying the IG framework is useful in this research. Firstly, reasons why this is a governance issue will be explained and, specifically, why it is an integrative governance issue. Furthermore, the author will elaborate on how the IG framework helps to understand the relation between climate governance and gender equality governance.

Global environmental governance has become increasingly complex (Bierman et al., 2009). In consequence, we can observe a fragmentation of policies and existence of many centers of decision making (Abbott and Snidal, 2010). In that matter, the relationships between different policies have been discussed by scholars and global organizations which encourage synergies. For example, the UN has decided in 2002 to enhance synergies and links among Multilateral Environmental Agreements (MEAs) (Visseren-Hamakers, 2015). To be precise, the idea of integrating environmental goals into other sectoral policies originated in the European Union (EU) (Lafferty and Hovden, 2003). Scholars (Jordan and Lenschow, 2010) noticed that policy integration appeared in the 1990s because of the introduction of the problem of sustainable development in the Brundtland report. The document called to connect economic, social, and environmental goals.

To enable change in the areas of climate change adaptation and gender equality, governance systems should be multi-dimensional, multi-sectoral and aim at a holistic approach. Dankelman proposes a gender-transformative climate change adaptation concept that “*aims to address the roots of vulnerability and exclusion through action that changes the fundamental attributes of a system in response to climate and its effect*” (Agard et al., 2014; Resurrección et al., 2019, p: 3). There is a need for structural changes and institutionalization for gender mainstreaming if we strive to move from totally technocratic and instrumental adaptation strategies toward gender transformation adaptation. The four spheres where institutional changes can enable change in adaptation are: “citizen sphere, the policy sphere, the organizational sphere, and the delivery sphere” (Levy, 1996:100).

One of the examples of gender mainstreaming practice is enhancing women’s leadership, through their own agency. According to scholars (Agard et al., 2014; Resurrección et al., 2019),

it should be accomplished with the support of institutional, governmental, donor, and NGO partners as well as with the full support of male counterparts. This indicates that the problem is a governance related question.

In theory, governance signifies “*a change in the meaning of government, referring to a new process of governing; or the new method by which society is governed*” (Rhodes, 1996 in Stoker, 1998: 18). The term governance has multiple definitions, but the baseline agreement states that “*governance refers to the development of governing styles in which boundaries between and within public and private sectors have become blurred*” (Stoker, 1998: 18). Within the governance system there is “*a shift in responsibility, a stepping back of the state, and a concern to push responsibilities on to the private and voluntary sectors and, more broadly, the citizens*” (Stoker, 1998: 21). Governance creates “*the system of interactions between actors for exchanging knowledge and consulting management objectives for decision making, the institutional framework (organizations, norms, rules, policies, laws) enabling these interactions, and the values and principles guiding them*” (Kooiman, 2003 as cited in Haapasaari, 2021: 3). When governance is integrated it increases the knowledge flow, sharing perspectives, skills, capabilities between stakeholders, and eventually better tackle the interconnected wicked issues. For example, cooperation between actors increases mutual understanding of how decisions influence each other (Stead & Geerlings, 2005; Parkers, et al., 2010 as cited in Haapasaari et al., 2021). Therefore, the increased cooperation outside sectoral boundaries within integrated governance can support synergies and consistency between policy areas (Haapasaari, 2021). To create an effective governance system to address the climate adaptation problems, gender equality should be incorporated in every responsive instrument. To enable this process the Integrative Governance (IG) theory offers a helpful framework.

The term Integrative Governance has been coined by Klinke and Renn, 2011; Thynne, 1998; – however, it has not yet been clearly defined. Visseren-Hamakers (2015) formulated a concept of Integrative Environmental Governance (IEG) as “*an umbrella term for all of concepts that have focused on the relationships between governance instruments and governance systems in the context of increasingly complex and fragmented environmental governance*” (Weitz et al., 2017). IEG connects discussions taking place in academia and policy on these issues, but often being separated from each other, without taking into consideration a bigger picture (Visseren-Hamakers, 2015). Weitz et al. (2017) have investigated the governance arrangements across the water, energy, and food sectors. Scholars found out that there are major barriers to achieving

coherence in the nexus literature, but there is no clear elaboration on why the barriers are present, what influences them, and how they can be acted upon. The study shows that IEG theory can help to fill the gaps, considering the wider governance landscape, the processes that occur within it and how they influence the links between information and implementation. The study tried to show that when a bigger picture of governance landscape is taken into consideration, as well as internal processes and their influences on information and implementation (Cairney, 2016), IEG theory can support filling the gaps (Weitz et al., 2017).

“Many policies and rules at different levels of governance influence one another whether they tackle the same issues or not” (Visseren-Hamakers, 2018a, 2018b). Integrative Governance framework (IG) enables to focus on relationships between governance instruments as the starting point for governance (Visseren-Hamakers, 2018a, 2018b). As connecting these issues makes research interdisciplinary by nature, the IG is suitable to research and understand how the issues are being governed. IG allows us to see climate change adaptation and gender equality as a nexus of issues. In that respect, this thesis adopts the IG framework which analyzes and practices IG (Figure 1).

When we think about the IG, we can imagine governance in the context of social economic and environmental interconnectedness, *“which we can use as the ideal-type as an evaluative tool against which to measure practice”* (Stout and Love, 2018; p.10). Eventually, the IG framework is used to pursue paradigmatic change through collaborative practice. This framework is significantly important when thinking about the future of the climate change-gender nexus. The IG framework not only can help better understand the level of nexus integration through analyses but can be used by policymakers to reflect on IG practices and improve governance performance. For example, the IG perspective has important consequences for the way new policy is developed and implemented. In this case, when an idea for a climate change adaptation policy arises, the instrument should be developed with consideration of existing ones and the relationship with gender equality policy. With this, questions should include how existing policies can support the new goals, what gaps exist in current governance systems given these new goals, and what the added benefit could be of the new instrument.

Policy development from an IG perspective is thus not focused on the design and development of a single new policy, but on the relationships between other policies and the governance

system as a whole (Visseren-Hamakers, 2018). In this manner, the focus moves from” individual *instruments to the relationships between instruments and groups of instruments*” (Visseren-Hamakers, 2015; 2018). When applying IG, we can see the relationships between the instruments used for climate change adaptation policy and those used for gender equality. More instruments which have a relationship with gender equality governance system may increase adaptation capacity. For example, the Canadian government recently oriented its foreign climate change policy in a ‘feminist’ direction as an attempt to incorporate gender in the main policy stream (Fawad et al., 2022).

In this case, IG is defined by Visseren-Hamakers as *“the theories and practices that focus on the relationships between governance instruments and/or systems”* (Visseren-Hamakers, 2018a, p. 2). Governance instruments *“include public, private and hybrid policies and rules, with policies defined as “a course of action or a plan” or a “rationale, a manifestation of considered judgment”, thus aiming for direct behavior”* (Parsons, 1995, p.14 as cited in Visseren-Hamakers, 2018a:1396). According to Visseren-Hamakers (2018a), a *“governance system can be defined as the total of instruments on a certain issue at a specific level of governance. Governance systems at different levels of governance can be studied together if necessary or appropriate”* (p.1396). The framework includes hybrid, private rules and policies. The author puts attention on the fact that there are often designed in collaboration with different stakeholders from three governance’s spheres: government, market and civil society.

The original framework (Figure 1) is composed of three steps: 1) mapping the governance instruments and their relationships 2) the performance of the governance systems and 3) the explanations for the relationship and performance (Visseren-Hamakers, 2018a, p. 5). Visseren-Hamakers (2018a), explains that the main contribution takes place at the last step in which one attempts to explain the relationships between, and within, the governance systems. What is unique in this framework is that analyzing and practicing IG enables scholars to put the necessary attention to those relationships and have an opportunity to explain them (Visseren-Hamakers, 2018a).

The application of the IG framework is well illustrated in the example of the global animal and conservation governance systems (Visseren-Hamakers, 2018a). The author shows that there is a difference in level of development between two governance systems. Furthermore, the analyses revealed that the focus is put on animal health in comparison to weak development of

welfare or undeveloped animal rights instruments. IG also allowed to assess the limited performances of both systems, establish their interactions as well explain them e.g. “main explanations include the interests of countries involved in the governance systems, the dominant anthropocentric discourses, and the current mostly animal-unfriendly and unsustainable political economy” (Visseren-Hamakers, 2018a: 1391). German scholars (Echihorn et al., 2021) used the IG approach to explore an apparent conflict of urban infill development and sustainable spatial climate policies. This research identified three key governance aspects that are essential for promoting implementation: instruments (measures that have been taken to implement both policy fields together), organization (how policy implementation is organized) and interaction (integrating all affected stakeholders into the process). They conclude that successful implementation can only be achieved through Integrative Governance including all three domains.

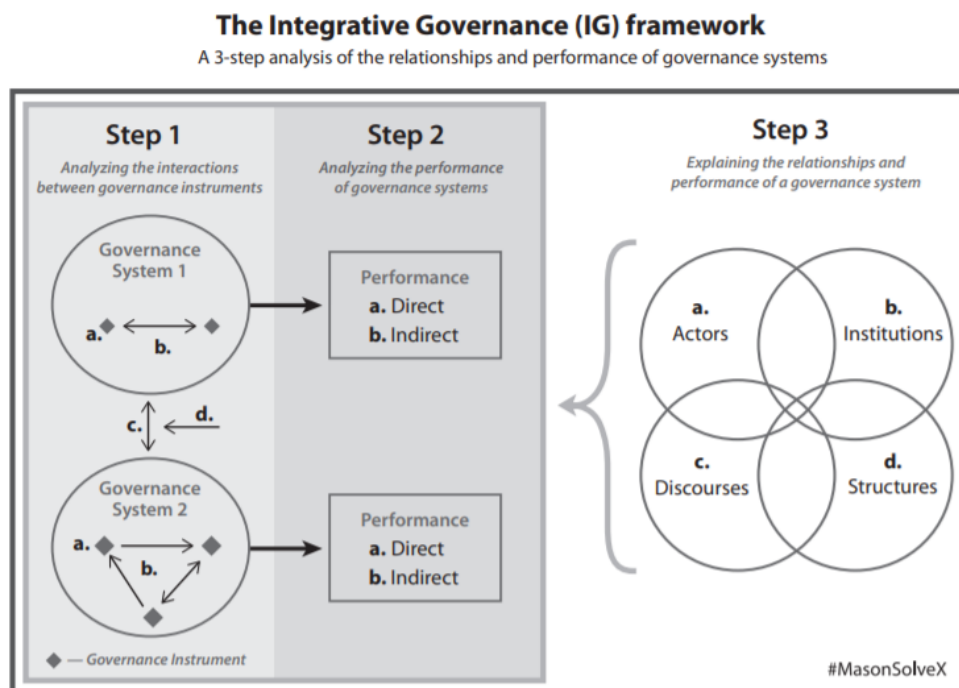


Figure 1. The IG framework

Reference: “A 3-step analysis of the relationships and performance of governance systems” from “A framework for analyzing and practicing Integrative Governance: The case of global animal and conservation governance”, Visseren-Hamakers, I.J., 2018a, p. 5.

Applying the Integrative Governance could help to identify the relationship between the nexus of climate change adaptation and gender equality. After mapping the governance instruments at stake, the direct performance will be established and followed by providing the explanation of its relationship. The author of the thesis found the IG framework useful to that case as it

allows to “zoom in” the case and look at the relationship, design of the policies, and furthermore “zoom out” and look for factors which could influence and explain the relationship. As gender is a societal construct, it was necessary to use a framework which could allow to take social structures, discourses into consideration, as the IG framework does.

The modification brought to the IG framework is motivated by thesis research by Remeter (2021) and her application of the IG framework. For her master’s thesis, the author removed step 2 as there is a possibility it could make it impossible to answer the research question. She did not have enough information to establish direct and indirect performance.

However, the author of this thesis has access to information which is valuable in terms of direct performance of ccGAP. Figure 2 shows the framework adapted to the discussion above and presents the nexus of climate change governance and gender equality governance as two distinct governance systems.

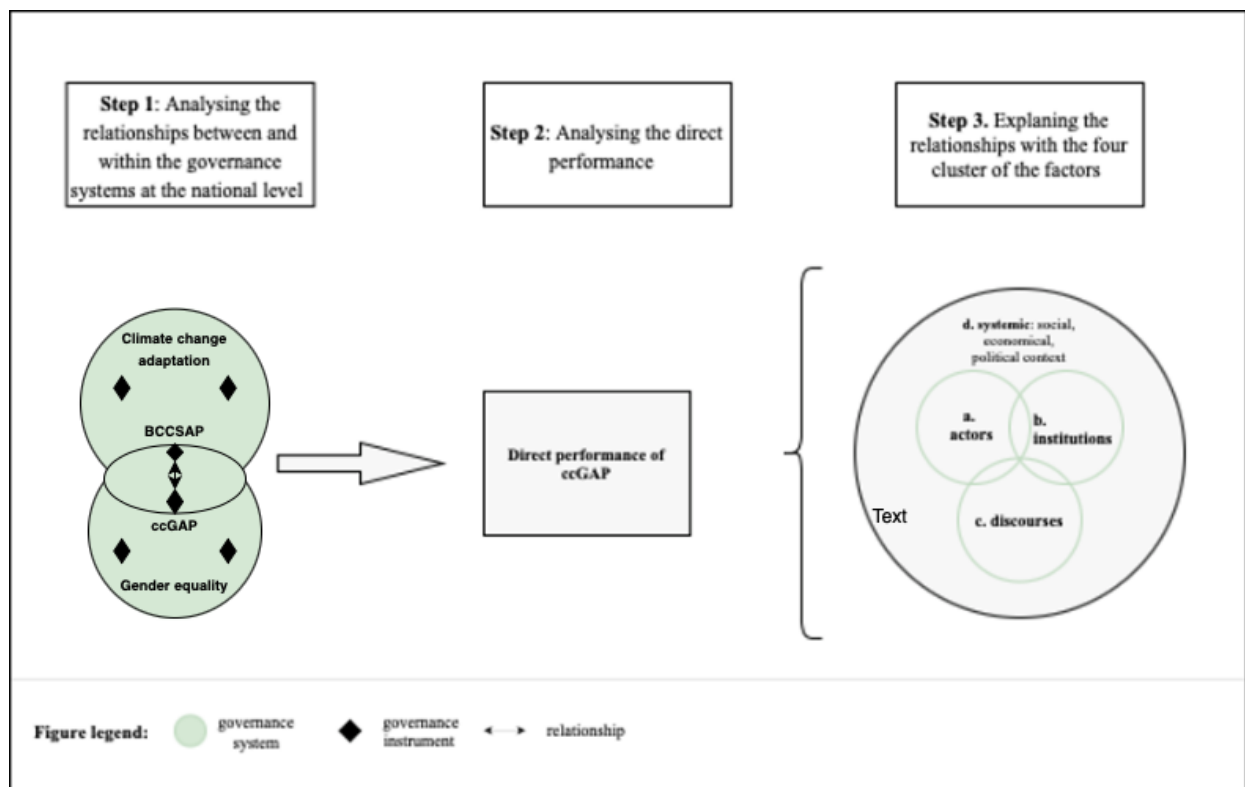


Figure 2: The IG Framework adapted to the research

Source: My own elaboration based on original framework by Visseren-Hamakers, I., 2018a and Remeter (2021)

2.5. Operationalization

According to van Thiel (2015: 43), operationalization is the transition from theory to empirical research. There are three steps to the operationalization: “1) *defining the theoretical concepts*; 2) *determining variables which are the way the concepts are identified in reality*; and 3) *observing the values which are measuring the variable*” (van Thiel, 2015, p. 43-44).

Table 1. Operationalization of the IG framework

Concept	Definition	Variables	Value
Relationship	Institutional interaction (Oberthür & Ghering, 2006) in a pair of instruments sums up from instances of interaction (Visseren-Hamakers, 2018a)	<ul style="list-style-type: none"> - type of interaction - main direction - effect of interaction - motivation - actors involved - commitment - background of designing instrument 	Trade-offs, synergies, or neutral effects (within and among governance systems)
Direct Performance	combined performance of a governance system, the established rules and policies	<ul style="list-style-type: none"> - addressing women - integration of gender equality in the relevant sectors - implementation of ccGAP after 2013 and challenges - actors participation and interests - recognition of ccGAP - interactions between stakeholders 	It is done by combining both the evaluation by the researcher him/herself, and the perceptions of policy stakeholders on the performance: a constructivist evaluation (Crabbe & Leroy, 2008)
Cluster of explanatory factors	Constructs that draw on and reflect the different literature on governance and that, brought	<ul style="list-style-type: none"> - a: actors: interests, motivation, involvement - b: institutions: 	Macro-level (large-scale social processes): -political, economic, social, historical

	together, explain the relationship.	- c: discourses, norms, and practices: - d: systemic factors (contexts)	context <u>Micro-level (small-scale interactions between individuals):</u> - resources, knowledge, and power - interests and perception of interests - the role of rules and norms in defining social practices of participation and interactions among actors - the role of hegemonic and non-hegemonic discursive narratives
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Reference: My own elaboration

Table 1 indicates the operationalization of the IG framework which will be used in this thesis. Firstly, I will map which instruments govern the issues of climate change adaptation and gender equality at the national level in Bangladesh. A governance instrument is “*public, private and hybrid policies and rules*” and a governance system is “*the total of instruments on a certain issue at a specific level of governance*” (Visseren-Hamakers, 2018a:1396). Visseren-Hamakers explains that a “*high level of abstraction*” (p. 1396) is expected in analyzing at different levels of governance, which is allowed by grouping the instruments into governance systems. Following the mapping exercise is the capturing of the relationships between and within governance systems as first conceptualized by Oberthür and Gehring (2006) (Visseren-Hamakers, 2018). The interaction could be explained as a “domino effect” based on the relationship between a source instrument and the target instrument (Oberthür & Gehring, 2006). The relationship can fall under one of the four following ideals: “*cognitive interaction (flow of information and knowledge), interaction through commitment (rules and norms committed to in the course instrument influence the target instrument), behavioral interaction (the behavior change induced by the source instrument affects the target one) and interaction at the impact level (influence of one another’s goal)*” (Oberthür & Gehring, 2006 as cited in Visseren-Hamakers, 2018:1396). As the author explains, the analysis should present the main instruments relationship which will help to provide evidence for the summarization of the relationships in and among governance systems (Visseren-Hamakers, 2018). Finally, I will put forward the main directions of the interaction as well as the effect which can be trade-offs, synergies, or neutral, and the possible evolution of the interaction in the future.

Secondly, the performance of the governance system established in step 1 will be analyzed. The operationalization of performance distinguishes direct performance. As Visseren-Hamakers (2018:1397) explained, it is operationalized “*using more objectivist and subjectivist epistemologies, combining both the evaluation by the researcher him/herself, and the perceptions of policy stakeholders on the performance*”. Direct performance includes “*output (the established rules and policies), outcome (changes in behavior) and impact (effect on the ground) to establish the extent to which the governance system has achieved what it intended to accomplish*” (Crabbe and Leroy, 2008; Underdal, 2002, as cited in Visseren-Hamakers, 2018: 1397). Due to the limitations of the research, only output will be analyzed in the study. In addition, the challenges in the implementation process of ccGAP within stakeholders will be identified.

Thirdly, the framework allows us to explain the relationships between and within the governance systems. Visseren-Hamakers (2018a) proposes four clusters of explanatory factors which overlap: “*a) the actors; b) the institutions; c) discourses, norms and practices and d) the structures*”. The actor clusters refer to the main actors involved in the systems and how their “*tangible (e.g., money, land, facilities) and intangible resources (e.g., trust, knowledge)*”, interests and perception of their interests influence the relationships of the governance systems.

The institution cluster refers to “*sets of rules, decision-making procedures and programs that define social practices, assign roles to the participants in these practices, and guide interactions among the occupants of individual roles*” (Young, 2002, p. 5 in Visseren-Hamakers, 2018a: 1388) and how they influence the relationships. Then, it is important to ask how the hegemonic discourses, norms and practices (e.g. prioritization, addressing women,) influence the relationships and finally how the societal structures of “*discourses, power relations among actors, and institutions*” together influence the relationships (Visseren-Hamakers, 2018a: 1400).

Bliss (2019) highlighted an operationalization challenge regarding the lack of clear empirical application. This is resolved by understanding that the actors, discourses, and institutions in their context overlap and are embedded in the social, economical, and context in which relationships are being reproduced.

3. Methodology

The methodology selected in this research will guarantee that the research is both valid and reliable and will be in tune with the research aim and conceptual framework. To best design the methodology for this research, the “research onion” or “layers of research design” concept as identified by Saunders & Tosey (2012) will be selected. Firstly, the researcher is asked to identify the philosophical lens of the research which is following. Secondly, the next layer includes the methodical choice of this research, followed by research strategy and time frame. Finally, within the “core” of the onion is data collection and data analysis, which will be elaborated on in the final section of this chapter.

3.1. Research philosophy

Saunders and Tosey (2012) define research philosophy as “*how a researcher views the world, her or his taken-for-granted assumptions about human knowledge and about the nature of the realities encountered*” (p. 58). In other words, a research paradigm respectively addresses “*the nature of reality*”; “*how reality is known*”; “*the role of values*” (*ontology, epistemology, and axiology respectively*) (Creswell & Poth, 2018, p. 35).

Firstly, this research is based on a pragmatic approach which is often seen outside of the classic paradigm systems (positivism, post-positivism, critical theory and constructivism). In contrast to the classic paradigms guided by philosophical assumptions, understanding a specific issue for practical outcomes requires a pragmatic approach (Visseren-Hamakers, 2018a). Moon and Blackman (2014) explain that all necessary approaches should be used to understand a research problem under pragmatism. Additionally, a pragmatic inquiry can represent “*social sciences more relevant for policy practitioners*” (Visseren-Hamakers, 2018a). The IG framework is in nature rather pragmatic. It focuses on analyzing and practicing the IG framework, which will be used as the conceptual practical foundation to understand and explain the relationships in the governance and present recommendations for its improvement (Visseren-Hamakers, 2018a; Korthals, 2016; Creswell & Poth, 2018).

Secondly, the pragmatic ontology, or the nature of reality, indicates that reality is “*useful and practical*” (Creswell & Poth, 2018, p. 35). Furthermore, Visseren-Hamakers (2018a) argues that a pragmatic inquiry takes into account a realist ontology. “*Structural realism (reality is described by scientific theory, but its underlying nature remains uncertain) and critical realism*

(*reality captured by broad critical examination*) “(Moon & Black, 2014) are both relevant to pragmatic ontology.

Thirdly, in pragmatic epistemology, “*reality is known through using many tools of research*” (Creswell & Poth, 2018, p. 35). Pragmatism is built on empiricism and rationalism (Moon & Black, 2014) and its epistemology adopts inter-subjectivity beyond objectivity (Visseren-Hamakers, 2018a). The pragmatic philosophy actually dismisses the classical division of objectivism and subjectivism rather than switches the research’s attention on both approaches (Kaushik & Walsh, 2019).

Finally, the axiology in pragmatism implies the values in knowledge that influence researchers and participants (Creswell & Poth, 2018). The researcher’s personal beliefs within the context of the research are therefore important to mention such as gender, age, as well as professional beliefs (Creswell & Poth, 2018). As this study discusses the governance of climate change and gender it is important to note that the researcher is a woman practicing feminist advocacy. Furthermore, the researcher is sensitive to the protection of women’s rights globally. In addition, the previous background of the researcher is gender geography. Eventually, following a Pre-Master’s and a Master’s in Environment and Society Studies have been motivated by her personal ideas and in turn have framed her opinions about environmental governance and climate change issues.

3.2. Research strategy

Research strategy is “*a plan of how a researcher will go about answering her or his research questions*” (Saunders et al., 2019; p. 189). This research aims to explore how climate change adaptation could be governed in tune with intersectionality, in particular gender, in the specific case of Bangladesh. Taking into consideration that this research is explanatory and uses “how” and “why” questions, this study is applicable to use qualitative research methods (Yin, 2014, p. 11).

Policy document analyses, as a research method, are recommended to many qualitative researchers as straightforward, efficient, cost-effective, and manageable (Cardno, 2018). Documentary analysis is often used as a supplementary way of collecting data to add accuracy to a study accuracy through a multi-method form of triangulation. Thus, it is common to find that studies employing qualitative methods such as interviews or participant observation will

also use documentary confirmations as an additional source of data when this is both relevant and feasible (Bryman, 2012; Forster, 1994). In this thesis, semi-structured interviews with thematic experts will be used as a supplement to documentary analysis.

Following the IG framework, step 1 will provide answers to sub-question 1 and 2. Instruments that govern climate change adaptation and gender equality at the national level of Bangladesh will be selected. It includes any instruments from national organizations in Bangladesh such as NAPA, BCCSAP and ccGAP. Then, relationships will be determined by focusing on the content of the instruments and their date of implementation to determine if they support one another's political orientation. The pair of the analyzed instruments and their relationship is BCCSAP and ccGAP. Step 2 will answer the sub-question 3 and will focus on establishment of direct performance of the one main instrument which overlaps gender and climate change governance systems. Meaning that implementation of ccGAP will be analyzed namely as an integration of gender equality in relevant sectors of ccGAP (section 4.2.2.). Policies from relevant sectors analyzed in the review of implementation made by ICCCAD (2021) will be used to present the integration of gender equality in the documents published after 2013 (after publishing ccGAP). Namely: Gender Policy of the Ministry of Environment, Forest and Climate Change, Bangladesh Seventh Five Year Plan (7FYP), National Plan on Disaster Management, the National Women's Development Policy (NEDP) under the Ministry of Women and Children Affairs (MoWCA). Step 3 will answer the sub-question 4 and will focus on the cluster of explanatory factors. It means focusing on the actors involved at the national level governance of the nexus; their participation in the development of ccGAP, awareness about gender equality in climate change within stakeholders, interests and on the role of norms, rules and structures that influence the governance.

3.3. Sampling method

The intended plan of this research implied a field case study conducted in Bangladesh in collaboration with International Climate Change Centre and Development in Dhaka (ICCCAD). The author of the thesis was selected as a research intern to conduct her own research. However, because of the travel restrictions due to the COVID-19 outbreak in January 2022, the author was not able to travel to the country due to a high risk of infection. It was decided that the research with ICCCAD collaboration would continue online.

The ICCCAD is one of the leading research and capacity building organizations working on climate change and development in Bangladesh. Their mission is to gain and distribute knowledge on climate change and, specifically, adaptation. Through the expertise of ICCCAD and its local partners, international organizations are exposed to relevant and grounded knowledge that can be shared and transmitted around the world for the benefit of other LDCs, and their governments, donors, and international NGOs. In this matter, cooperation with ICCCAD fits in the concept of IG and collaboration between sectors.

As the ICCCAD specializes also with climate change and gender policies, the institution was chosen for the collaboration. The key objectives of ICCCAD Gender Programme are to mainstream gender equality and social inclusion approach in all its research initiatives, project, and program intervention. One of the major projects run by the organization was the Revision of Climate Change Gender Action Plan of Bangladesh (ICCCAD, 2021), which constitutes as a main instrument in the nexus of climate change adaptation and gender governance system, explored in this study. Therefore, thanks to the collaboration, access to collected data from the Revision project was possible.

Potential interviewees were selected with a focus on gaining a perspective on climate change adaptation and gender governance in Bangladesh. Therefore, it was imperative that there was diversity in the positions that these interviewees hold and the roles that they play in the system. In addition, a “snowballing” technique has been used to tackle the researcher’s limited knowledge of the process and long distance from the place, as well as the researcher’s initial access to certain actors.

3.4 Data collection

In this research, qualitative methods will be used which are in tune with policy document analysis and semi-structured interviews with experts. As mentioned before, the primary research plan was transformed to desk research. In contrast to other strategies in which the researcher produces the data, desk research implies that most of the used data have been collected or produced by other people such as previous research (van Thiel, 2015). However, semi-structured interviews with experts are combined, which is a common practice (Bryman, 2012; Forster, 1994). Therefore, this research will be conducted using a multi-method

qualitative approach, meaning that “*more than one qualitative data collection technique [will be] used*” (Saunders and Tosey, 2012, p. 59). According to Harrison et al. (2017), “*the use of multiple methods to collect and analyze data are encouraged to provide a more synergistic and comprehensive view of the issue being studied*” (p. 12). This approach was chosen as this research will make use of two methods to obtain data; these are desk research (detailed analyses of documents) and semi-structured interviews with experts.

3.4.1. Literature review

In this study, the researcher conducts an analysis of secondary data and demonstrates an interpretation and gaps in existing knowledge (van Thiel, 2015). A classical literature review is “a re-view” of something that has already been written” (Jesson, Matheson & Lacey, 2011:9). A systematic literature review is a review that follows a method (Jesson, Matheson & Lacey, 2011; p.12): (1) *Define a research question* (2) *Design a plan* (3) *Search for literature* (4) *Apply exclusion and inclusion criteria* (5) *Apply quality assessment* (6) *Synthesis*.

Jesson, Matheson & Lacey further explain that a classical literature review can be conducted with a systematic approach. However, a systematic review needs to address each of the six elements. In this research, a literature review (review of theoretical knowledge which contributes to the understanding of the problems) with a systematic approach was conducted (Jesson, Matheson & Lacey, 2011:12). In this case, the data gathered in the literature review allowed for a model to be constructed (van Thiel, 2015). Therefore, the synthesis of the systematic approach included the theoretical framework which was chosen by the researcher (Lichtman, 2013).

Formulating the research question was initially based on the researcher's previous master's thesis in the field of gender geography. After reading the literature on the subjects, the case of Bangladesh appeared to be the most relevant in the nexus of climate change and gender. Specifically, the Climate Change and Gender Action Plan (ccGAP) in Bangladesh was found and attracted the attention of the researcher. It was a starting point in looking for information about governing gender issues, gender equality in the climate change policies. Inspired by the thesis “*Regional Integrative Governance: Climate change, environmental justice and mobility in the Pacific Islands*” (Remeter, 2021), the IG framework was chosen to facilitate answering the research question.

3.4.2. Semi-structured interviews

Semi-structured interviews are conducted to contribute with the desk research data. Holding semi-structured interviews aimed to cover the concepts found in the theoretical framework; verify information gained in the desk research, to check the validity of early findings; and to highlight new ideas or concepts. Therefore, the interviews were operationalized in line with the theoretical framework. Due to the different perspectives of interviewees on the subject, the questions were adjusted to their field of expertise. Given the COVID-19 context, the semi-structured interviews were held on Zoom. They were recorded and transcribed with the use of the Amber Transcript website. To analyze the transcripts, they were manually coded, and a thematic coding was applied (van Thiel, 2014).

People who have worked in the climate change and gender policy field in Bangladesh, in diverse NGOs, government positions, and scientists were expected to be found. The first interview was conducted with professor from Radboud University, and Senior Advisor on Gender and Environment in many projects for the United Nations (UN) (see Table 2). Due to the long distance and time difference between the Netherlands and Bangladesh, the researcher encountered many challenges in finding ideal interviewees for their research. The main tool in searching for experts was the LinkedIn portal. Firstly, a person was found who works in the Ministry of Environment, Forest and Climate Change, Bangladesh, but she was not available for an interview. The second interview was conducted with her colleague. The third interview was conducted with a climate change adaptation policy researcher who spent 10 years in Bangladesh doing her study about policy entrepreneurship in climate change governance. The fourth interviewee is a Gender Specialist, activist in Bangladesh, working as a Gender Advisor in local government. The following table presents a detailed overview of the conducted interviews (Table 2).

Table 2. Overview of interviews

Interviewee	County of origin	Field of expertise	Organizations	Date of interview
Int. 1	Netherlands	Academic; Gender and Environment	Radboud University	February 23, 2022

		Senior Advisor, working on global ccGAPs	United Nations (UN)	
Int. 2	Bangladesh	Academic; Human Geography, Resilience, Environment Management	Hamburg University, ICCCAD,	13 July, 2022
Int. 3	Bangladesh	Gender Specialist, management, coordination, planning and program implementation, gender mainstreaming	Local Government Engineering Department, Department of Women's Affair, Water and life Bangladesh.	15 July, 2022
Int.4	United Kingdom	Academic; Climate policy researcher and strategist working on Loss and Damage, global adaptation and leadership.	ICCCAD, King's College, UN, Climate Leadership Initiative	19 July, 2022

The researcher is aware that the number and sampling of interviews are not fully sufficient. Several reasons can explain this outcome. The restrictions related to the COVID-19 pandemic have totally re-shaped the original research planned in Bangladesh. Although many emails, Facebook, and LinkedIn messages were sent, most of the time potential interviewees did not answer. Some people, in majority from Bangladesh, informed that it was not possible for them to talk about gender issues. For example, a person from UN Women Bangladesh acknowledged that she is not allowed to give an interview without the head of the Agency's permission. Others did not feel knowledgeable enough to talk about the topic of the research. For instance, a contacted Gender Specialist from UNDP Bangladesh did not know about climate change expertise in her field. Furthermore, it was easier to reach out to academics than policymakers, advisors, governmental actors. At the end, the group of interviews represent Western and Eastern perspectives on the topic. There are also viewpoints from gender specialists and climate change researchers. Research strategy shows the willingness to reflect the interdisciplinary nature of this research. However, the author of this thesis argues that the interview sample does not fully meet this requirement.

3.5. Data analysis

The main method used in this study is content analysis. Meaning that the content of pre-existing documents such as legal documents, previous academic research, or articles was interpreted by the researcher. The findings of this analysis are what the researcher seeks to convey (van Thiel, 2015). Firstly, the researcher collects the documents. The literature review made at the first stage of the thesis was, therefore, also valuable for the content analysis. Then, it also means that another literature review was conducted in order to answer the research questions.

After the data were gathered from the literature review, documents and transcripts of the interviews were uploaded to Atlas.ti and coded with reference to the conceptual framework. Except the first interview where interviewee did not agree to be recorded. Notes from this interview are available. The data analysis process is a mix between inductive and deductive, with the use of the IG framework to guide the process of collection and analysis.

Firstly, open coding was conducted in order to separate the data into quotation units and identify them with specific concepts and categories. During this step of the coding process, memos and comments were used to keep track of potential connections or insights gained from an initial review of the data. Secondly, the axial coding process was then used to start to create higher-order categories based on the indicators outlined in the operationalization. This included beginning to identify certain codes with specific aspects of the IG framework and specific steps. Finally, setting the stage for selective coding, whereby core categories were selected to include in the findings of this research based on their relationship to the theory and their demonstrated importance in the data.

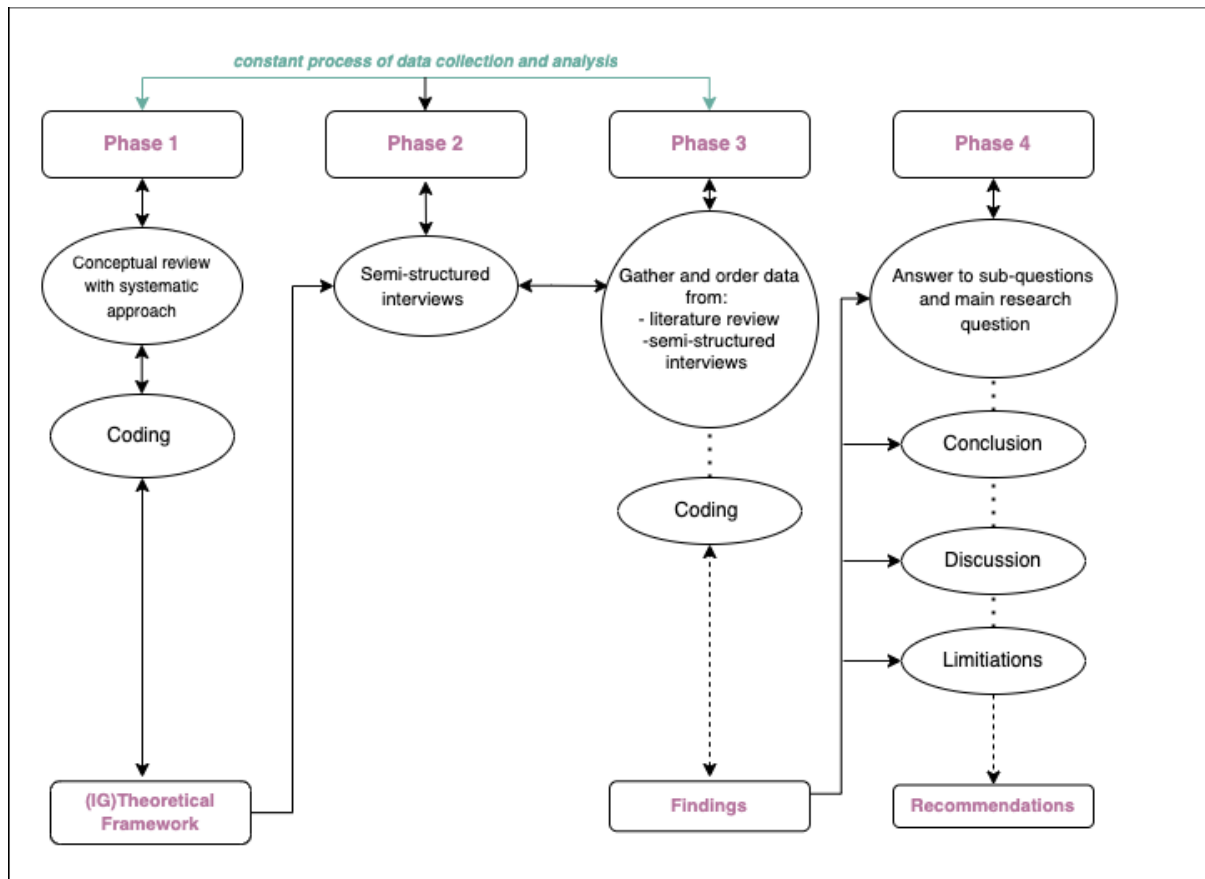


Figure 3. Overview of data collection and analysis involved at the four stages of the inquiry

Source: *My own elaboration*

3.6. Validity and reliability of the research

The concepts important to consider in qualitative research are validity and reliability. They are defined as: ‘reliability’ is the extent to which a measurement procedure results in the same answer however and whenever it is conducted; “validity” is the extent to which it gives the correct answer” (Kirk and Miller, 1986, p. 18).

To increase reliability in this research, the methods and operationalization of theory have been defined in detail. Interviews are a gap in reliability because other (and more) participants may have given different answers (van Thiel, 2015). However, participants were given similar constructed questions, which strengthens reliability. The interview guides used to conduct the semi-structured interviews were also added to the appendix in order to provide transparency into the data collection process. In order to increase validity, this research was guided by previous literature and facilitated diverse forms of data collection to ensure triangulation of

data. In addition, the research was advised by prof. Irene Dankelman who was a pioneering scientist in the gender-climate change field of study.

4. Findings

The analysis below will be split up into three subsections. The first will introduce the instrument - ccGAP - and will identify its relationship with climate change adaptation governance. The following two will present other elements from the IG framework: indirect performance. The sections addressing women in ccGAP will be discussed as well as examples of gender integration in the sectors. In addition, the challenges of ccGAP implementation will be shortly elaborated. The final section will explain the relationship between instrument and performance using four explanatory factors: actors, interests, and resources, institutions, norms, practices and discourses, and social structures.

4.1. Story of Climate Change and Gender Action Plan

The incorporation of gender equality within climate change adaptation governance starts with the Climate Change and Gender Action published in 2013. It is the first document which fully focuses on this topic. However, gender issues were already mentioned in NAPA (2005) and BCCSAP (2008). Both strategies did not include gender perspective as a one of the pillars of action, and gender issues are not sufficiently addressed. Instead, gender is treated as a cross cutting issue. This section provides a mapping of the climate change and gender governance systems (step 1 in the IG framework) as well as detailed overview of how gender equality has been evolved in the climate change adaptation governance, ending with establishment of ccGAP, and its relationship to BCCSAP (step 1 in the IG framework).

4.1.1 Climate change adaptation governance and gender equality – instruments and relationship (Step 1)

In Bangladesh, climate change adaptation governance at the national level mainly consists of NAPA and BCCSAP. In 2001, during COP7, parties agreed on establishing three special funds including the Least Developed Countries Fund (LDC). As a response to COP7, in 2005 the Government of Bangladesh developed its UN-mandated National Adaptation Programme of Action (NAPA) (Khan, 2011). The purpose of the NAPA was the development of a countrywide program that encompasses the immediate and urgent adaptation activities that address the current and anticipated adverse effects of climate change, including extreme events.

The goal of the NAPA formulation for Bangladesh was to guide the coordination and implementation of adaptation initiatives in the country, through a participatory approach and building synergies with other relevant environmental and related programs. At the same time, it planned to develop specific priority programs of action for adaptation to climate change (MoEF, 2005). It is worth mentioning that health and gender are considered in the document as a “cross-cutting” issue. According to Alston (2017:184), *“despite gender equality being mentioned in the NAPA, it does not include women as stakeholders in proposed adaptation actions, does not incorporate gendered statistical information and does not discuss the gendered implications of public health issues”*. Rather, *“the NAPA presents women as victims of climate impacts; women are not considered active participants in adaptation to these impacts”* (WEDO et al., 2008: 59 cited in Alston, 2017: 184).

According to Khan et al. (2012), upon the completion of NAPA, policy makers in Bangladesh recognized that the NAPA was an insufficient plan, which did not address the immensity of the climate change problem in the country. The Government of Bangladesh then began a more comprehensive planning process, with its own financial and intellectual resources. As a consequence, in 2008, the Government of Bangladesh and the Ministry of Forests and Environment (MoFE), prepared and adopted the Bangladesh Climate Change Strategy and Action Plan (BCCSAP). It is a knowledge strategy built upon the NAPA (2005). The BCCSAP aims to reflect the changing development priorities of the new government and was revised in 2009, after governmental elections. It is a 10-year program (2009-2018) to build the capacity and resilience of the country to meet the challenges of climate change (GoB, 2009).

Working on the climate change adaptation governance in Bangladesh involves not only national actors. The implementation of the BCCSAP was financed through the government's own resources (\$200 million for implementation) and external support (from IUCN), and international funds. Meaning that two years after the BCCSAP, the Government of Bangladesh established the Bangladesh Climate Change Trust Fund (BCCTF) to cover implementation costs of BCCSAP. It is the first ever national climate fund established by a LDC and is an example to other countries for institutionalizing national climate finance. BCCTF considers projects that fit with the priority actions and programs of the BCCSAP 2009. In the same year, the Bangladesh Climate Change Resilience Fund (BCCRF) was established too. It is an innovative partnership between the Government of Bangladesh, Development Partners, and the

World Bank to address the impacts of climate change. This fund, one of the first of its kind around climate change, was created with financial support from Denmark, the European Union, Sweden, and the United Kingdom. This project is enabling the government to channel in over US\$125m grant funds to millions of Bangladeshis to build their resilience to the effects of climate change. The objective of BCCRF is to support the implementation of BCCSAP for 2009-2018 (Khan, 2011; Khan et al., 2012).

BCCSAP sets out 44 programs to be taken by Bangladesh over the short, medium, and long term within six strategic areas (including mitigation, which was not part of NAPA): (1) Food security, social protection and health; (2) Comprehensive disaster management; (3) Infrastructure, (4) Research and knowledge management; (5) Mitigation and low carbon development; (6) Capacity building and institutional strengthening.

Through the data collection it became clear that the BCCSAP is the main climate change adaptation legal framework in Bangladesh (Int.4) and it does address gender issues. In general, the thrust of the strategy is on sustainable development, poverty eradication, and increased well-being of all vulnerable groups in society with special emphasis on gender sensitivity. The BCCSAP is criticized for its low capability for implementation. Interviewee 2 admits that *“It is called a strategy, an action plan, but that is a document that has nothing to do with an implementation. That is just a document, ideas on the paper”*. Following the critics of BCCSAP, Khan et al. (2012) point out that the plan is just a ‘knowledge strategy’, which needs to be modified into an implementation strategy by the specific ministries and departments.

The BCCSAP indicates that every effort should be made to ensure that vulnerable groups will be secured and that all programs will focus on food security, safe housing, employment, and access to basic services, including health for all citizens. Under this pillar, the aim is to increase the resilience of vulnerable groups, including women and children, through the development of community level adaptation, livelihood diversification, better access to basic services and social protection (e.g., safety nets and insurance), and scaling up (ICCAD, 2021). However, gender is not one of the pillars. The strongest reference to gender equality can be seen in the 6th pillar: Capacity building and Institutional Strengthening. One of the six programs included in the pillar is “Strengthening gender consideration in climate change management (T6P4)” with an objective of “Integration of gender consideration in all climate change management”.

According to the Department of Environment (Shawkat Ali, n.d), gender consideration is incorporated in all its actions (as a cross-cutting issue). However, it is only mentioned in the Capacity Building goal as the prioritization of needs of the poor and vulnerable, including women and children, which will be mainstream in all activities under the Action Plan. Of the 44 programs under the BCCSAP, 22 highlight gender as an important aspect. Originally, the BCCSAP did not adequately address gender and gender is not integrated or mainstreamed into the strategy. In practice, only three projects refer to women empowerment and they are planned as a short-term priority (GoB, 2009). However, the BCCSAP in 2009 did announce willingness to integrate gender consideration in climate change management and within policymakers' network, which is an important fact in terms of establishment of ccGAP in 2013.

Climate Change and Gender Action Plan

The document which incorporates gender equality in the climate change adaptation context is the national Climate Change and Gender Action Plan (ccGAP). It was developed in 2013 with an aim to ensure gender equality and social inclusion into climate change related policies, strategies, and interventions. CcGAP is a result of a participatory process that included in-country meetings, stakeholder consultations, involving the representatives from several ministries/government departments, civil society, academia, research institutions, local NGOs, international organizations, and a desk review of several key reports, publications, websites, surveys, and in-person interviews. This plan provides guidance on policy issues and initiatives that need to be taken into consideration by the government to address climate change in a gender-sensitive manner.

Table 3. Mapping the governance instruments (step 1 – sub-question 1)

Source: My own elaboration

Instrument	Governance system	Aim	Gender integration
National Adaptation Programme of Action (NAPA, 2005)	Climate change adaptation	To guide the coordination and implementation of adaptation initiatives in the country.	Gender is only mentioned in the document. <i>“It does not include women as stakeholders in proposed adaptation actions, does not incorporate gendered statistical information”</i> (Alston, 2017:184). Rather, <i>“the NAPA presents women as victims of climate impacts”</i> (WEDO 2008: 59).

Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2008)	Climate change adaptation	To build the capacity and resilience of the country to meet the challenges of climate change; knowledge strategy built upon the NAPA (2005).	It aims to ensure the needs of vulnerable groups, including women; prioritization of needs of the poor and vulnerable, including women and children, which will be mainstream in all activities under the Action Plan. It did not adequately address gender and gender is not integrated or mainstreamed into the strategy.
Climate Change and Gender Action Plan (ccGAP, 2013) - under umbrella of BCCSAP (2005)	Gender equality	To ensure gender equality and social inclusion into climate change related policies, strategies, and interventions.	This plan provides guidance on policy issues and initiatives that need to be taken into consideration by the government to address climate change in a gender-sensitive manner.
The Gender Policy of the Ministry of Environment, Forest and Climate Change (MoEFCC, 2016)	Gender equality	To systematically analyze gender perspectives within a community and explore issues and barriers facing women in the community and to focus on women's access to and control over income and resources, and children and disable/excluded group's needs in terms of security, health care, food security, and nutrition (MoEF, 2016).	Separate document about prioritization of women through its various projects and programs.

The ccGAP emphasized the Government’s intention to empower women and respond to the needs of the often invisible ‘other half’ of the population in the context of climate change in Bangladesh (MoEF, 2013). Climate change policy experts admit that ccGAP does recognize the role of women in climate change: *“I found that it does recognize the role that women play in addressing climate change. It presents the other side of the coin that we often don't talk about”* (Int.4). The objective of the ccGAP is:

“To mainstream gender concerns into climate change related policies, strategies and interventions ensuring access to, participation in, contributions towards and benefits for the diverse group of stakeholders for the sustainable and equitable development of Bangladesh”. (MoEF, 2013; p.10).

There is undeniably a strong relationship between ccGAP and BCCSAP. The content of ccGAP is contextualized especially by the pillars of BCCSAP 2009. The ccGAP considers four key pillars¹ of BCCSAP, namely

- a) Food Security, Social Protection and Health;
- b) Comprehensive Disaster Management;
- c) Infrastructure;
- d) Mitigation and Low Carbon Development.

The ccGAP establishes clear objectives and alignment of the BCCSAP. For example, it outlines gender sensitive activities in the specific programs mentioned in BCCSAP. Each pillar highlights the specific contribution women make and can make within each of these as well as the required interventions necessary to incorporate the role of women effectively over a timeframe of five years, from 2013/14 to 2018/19.

Under the Food Security, Social Protection and Health pillar, attention has been given to integrate gender and climate change issues into policies and national documents concerning the agricultural sector, creating the environment to lease land/water bodies to women, ensure crop insurance and/or other safety nets for female farmers, access to economic instruments, capacity development, and the participation of women in alternative technologies; for instance, bio-fertilizer; climate resilient cropping, etc. Actions have been suggested to integrate climate change and gender into national health policy and programs, to support the livelihoods of migrating women due to climate change and increase the involvement of women for efficient water management and better social protection of women, adolescents, and children, during and post-disaster and emergency situations (Appendix 1; Table 1).

Under the Comprehensive Disaster Management (CDM) pillar, some guidance worth mentioning are: development of gender responsive disaster management policy, more instruments of financial resources to address gender and DRR issues, participation of women in community risk assessment (CRA), vulnerability and capacity assessment projects, capacity

¹ The other two pillars of the BCCSAP, 'Research and Knowledge Management' and 'Capacity Building and Institutional Strengthening', have been considered as cross-cutting issues in the ccGAP.

development activities for women and men in providing first aid and primary health care as first contact people (Appendix 1; Table 2).

With regard to Infrastructure, focus has been given to ensure women’s access to climate change related infrastructure development and management projects, increases in monitoring, maintenance, and mobility of women in the transport sector. In the field of mitigation and low carbon development pathways, increased women’s participation, access and benefit in the energy policy has been emphasized. Development of gender responsive programs to reduce GHG emission at household (HH) and increased access to energy and power technologies, entrepreneurship development programs related to waste management, solid waste and drainage management, and more participation of women in coastal and social forestry programs have been suggested (Appendix ; Table 3 and 4).

4.1.2. Applying the IG framework – step 1

The analyzed pair of instruments is BCCSAP and ccGAP as the latter one is made under the umbrella of BCCSAP (Figure 4). Because of this connection the analysis of their relationship is interesting and provides some evidence of their relationship itself. Furthermore, it helps to answer the sub-questions nr 1 and 2.

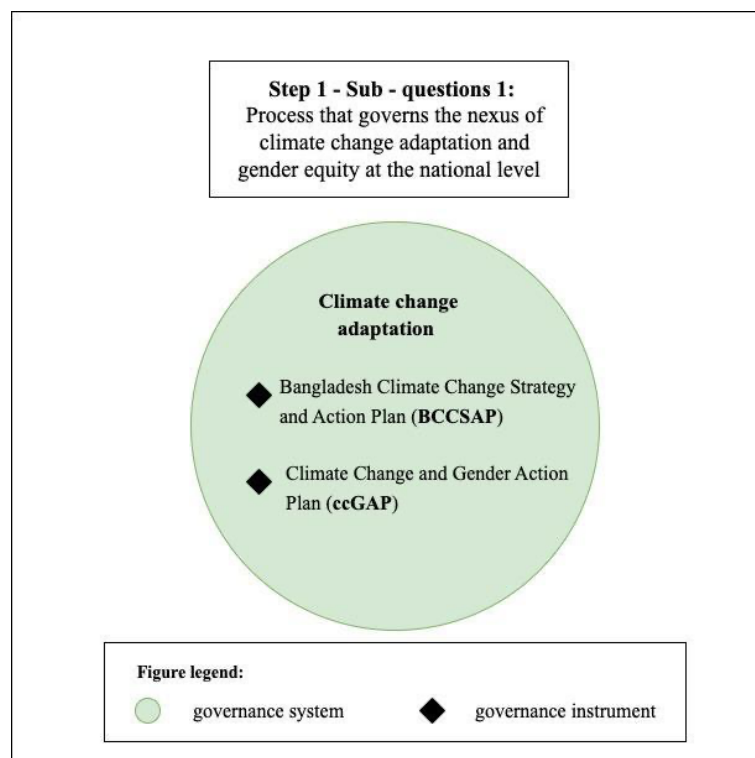


Figure 4. Map of governance instruments that governs the nexus of climate change adaptation and gender equality.

Source: My own elaboration

To answer the sub-question 2 “*What is the relationship between ccGAP and the climate change adaptation instrument (BCCSAP)?*”, the IG framework focuses on the interactions between a pair of governance instruments: BCCSAP and the ccGAP.

BCCSAP is called “knowledge strategy” and ccGAP provides “guidance for policy makers”. Both documents are created by the Government of Bangladesh and the Ministry of Forest and Environment. BCCSAP was created first in 2008 and then revised in 2009. The document did not include a gender perspective as a one of the pillars of action, and gender issues are not sufficiently addressed (ICCAD, 2021). Instead, gender is treated as a cross-cutting issue.

The behavioral interaction could be seen in the 6th pillar in BCCSAP: Capacity building and Institutional Strengthening. One of the six programs included in the pillar is “*Strengthening gender consideration in climate change management (T6P4)*” with an objective of “*Integration of gender consideration in all climate change management*”. Two actions are planned in order to achieve this goal:

“Action 1: Development of criteria and approach for inclusion of gender consideration in all climate response activities,

Action 2: Build the capacity of gender focal point in all ministries and agencies to incorporate gender issues in all climate change response activities” (GoB, 2009; p. 74).

Both actions are related to the content of ccGAP. In that matter, the BCCSAP in 2009 announced willingness to integrate gender consideration in climate change management and within policymakers' network. Is it important to mention that NAPA did not include that strong emphasis on gender consideration compared to BCCSAP. Following the government's behavioural change, the idea to prepare a National Strategy/Action Plan on Gender and Climate Change for developing countries came from IUCN (donor organisation). On 23 July 2012, the Government of the People's Republic of Bangladesh and MoEF sent a letter to IUCN asking to be part of the project and support the mainstreaming of Gender in Climate Change Efforts in Bangladesh (Appendix 2).

“Back in 2009, the Ministry of Environment and Forests, Bangladesh has formulated Climate Change Strategy and Action Plan (2009) in which Gender and Climate Change issues have

been given substantial importance. The idea of protecting women and children has been highlighted in the thematic area of Food security, social protection and health of the BCCSAP. Therefore, MoEF would like to prepare a National Strategy/Action Plan on Gender and Climate Change, under the BCCSAP.” (ccGAP, 2013, p. 119)

Following the letter, the Steering Committee with 13 members for the project “National Climate Change and Gender Action Plan in Bangladesh ” supported by IUCN Bangladesh was established on 15 January 2013. In that matter, the ccGAP is a continuous project of the BCCSAP in which gender had a little, but important, attention. In order to extend the knowledge and take more actions towards gender equality in climate change activities, the MoEF decided to facilitate a more advanced document with special attention on gender in four pillars. In 2013, ccGAP was established as complex guidance on policy issues and initiatives that need to be taken into consideration by the government to address climate change in a gender sensitive manner.

National governance institutions are designed to influence the behavior of relevant actors in order to achieve their objectives. According to Oberthur and Gehring (2006: 156), “*behavioral effects in one issue area affect the implementation of another institution*”. In this case, the willingness of GoB to strengthen gender consideration in climate change management had an influence on the other actors like IUCN, GGCA, and GoF to be engaged with preparing and financing the strategy of ccGAP. In addition, as Visseren-Hamakers (2018: 1396) mentioned, the behavioral interaction between instruments means that “*behavioral change induced by one instrument affects another*”. Women issues were recognized as an important factor in the climate change adaptation strategy, BCCSAP, and, perhaps, this behavioral change within the actors had an impact on the willingness of GoB to develop new documents with other stakeholders to extend this topic. In other words, the target instrument ccGAP is influenced by the source instrument BCCSAP at the output level, which indicates the behavioral interaction between instruments (Oberthur and Gehring, 2006).

Due to limited data collection the author did not find any other relationship (cognitive, commitment, impact) (Oberthur and Gehring, 2006) between the instruments. Based on the available data the behavioral interaction seems to be the most appropriate one.

The effects of a case of instrument interactions may be “*beneficial, adverse, or neutral for the source instrument*”. Beneficial effects “*will create synergy between two instruments in the system*” (Oberthur and Gehring, 2006). Between BCCSAP and ccGAP could be a synergy because the policy direction of the target instrument is supported by the objective originating from the source document. BCCSAP aims at increasing well-being of all vulnerable groups in society with special emphasis on gender sensitivity, while ccGAP targets ensure gender equality and social inclusion into climate change related policies, strategies, and interventions. They share common and interrelated objectives, they are framed with the perspectives of women's needs and climate change adaptation actions, and they participate in the achievement of the same national goals. This results in a synergy between the two instruments (Oberthur and Gehring, 2006: 46).

The state of the synergy between the BCCSAP and the ccGAP logically depends on the future implementation of projects, actions, and policies on national level. Reviewing and updating the ccGAP report has been approved by the Bangladesh Climate Change Trust Fund (BCCT) and UN Women is supposed to provide technical support. However, due to the Covid-19 pandemic, the project is yet to be launched (ICCCAD, 2021). Furthermore, the nexus climate change adaptation-gender depends on developing more instruments under the national climate change governance system. The revised document of BCCSAP is expected to pay greater attention to gender (the revised report is pending finalization within the MoEF) (ICCCAD, 2021). Table 4 sums-up the main characteristic of the BCCSAP-ccGAP relationships to answer sub-question 2.

Institutional interactions	Pair: BCCSAP & ccGAP
Type	Behavioral
Main direction	BCCSAP source instrument → ccGAP target instrument
Effect	Synergy into the climate change adaptation national governance
Evolution	In the future, immediate synergy might result in a revised BCCSAP with greater attention on gender and more instruments in tune with the nexus climate change adaptation and gender.

Table 4. Interaction between the BCCSAP and the ccGAP

Source: My own elaboration based on the information from Visseren-Hamakers, I., 2018a & Oberthür, S. & Gehring, T., 2006; Remeter, 2021.

4.2. Integration of gender equality in relevant sectors of ccGAP – step 2

This section tries to answer the third sub-question “*To what extent is gender equality implemented in the climate change adaptation policies?*” Accordingly, it is an attempt to establish the direct performance of the main instrument – Climate Change and Gender Action Plan (ccGAP, 2013). In addition, the challenges in the implementation of the ccGAP were identified and explained.

At the sectoral level, there is little evidence available about the implementation of the ccGAP. Therefore, ICCCAD set up their own project of reviewing the implementation of ccGAP at the sectoral level and submitted it to UN Women Bangladesh. The analysis shows that incorporation is often done by publishing one separate document about gender, insufficient mainstreaming, imposing gender projects by donors, and victimization of women in the climate change adaptation strategies. The main challenge is to create an enabling environment for women to transform unequal societies and institutional structures to realize the full creative and productive potential of women to reduce vulnerability and enhance efficiency and effectiveness of climate change adaptation projects and programs (ICCCAD, 2021).

There is a good example of an attempt to integrate gender lens in the policy. The **Gender Policy of the Ministry of Environment, Forest and Climate Change** (MoEFCC, 2016) acknowledges that the Department of Environment (DoE) prioritizes women through its various projects and programs. The policy indicates that women, children, and persons with a disability must be included in the Development Project Proposals (DPP) of DoE. The aim is to systematically analyze gender perspectives within a community and explore issues and barriers facing women in the community and to focus on women's access to and control over income and resources, and children and disable/excluded group's needs in terms of security, health care, food security, and nutrition (MoEF, 2016). However, this document is a separate document about gender perspective. It is not a general environmental strategy which takes into consideration gender perspective.

On the other hand, The **Bangladesh Seventh Five Year Plan (7FYP)** goes one step further and incorporates gender within the main plan. It consists of a specific chapter on gender and food security: Chapter 4 ‘Strategies for agriculture and water resources’ focused on mainstreaming women in agriculture: women are crucial in the transformation of agricultural products into food and nutritional security in Bangladesh. This pillar of the FYP points out that gender-based inequalities along the food production chain must be reduced and the consistent engagement of women at all levels of decision making is necessary to attain food and nutritional security. Special policies and provisions are often required to ensure that women have control over important income generating activities, these could include: ‘Developing women friendly technology and business environment; More women participation in market transaction; Capacity development of women for small-scale entrepreneurships; Collective action and market linkages; Supporting homestead agricultural value addition strategies; Recruit more women agricultural workers and increase their participation in the technology innovation; and Protection of women and children from health hazards during agricultural operation’ (General Economics Division, 2016; p. 276).

Furthermore, within 7FYP, there is an emphasis on human development, social protection, and social inclusion as essential elements of a comprehensive poverty reduction strategy and it identifies where social protection needs to address women specifically, including with increased protection and resilience from crises and shocks. The 7FYP references women’s vulnerability and needs in post-disaster recovery, reconstruction, and rehabilitation, in reducing the underlying risks and mitigating the effects of climate change and disasters (General Economics Division, 2015). However, the overall targets fail to acknowledge the disproportionate impacts on women and men.

Interviewee 1 indicates that even when there is gender sensitivity in the strategy, this is not always done in the right way. For example, the mainstreaming, used in the 7FYP, could be more specific. According to interviewee 1 mainstreaming, which is based on just adding numbers (for example, 50% of women participate in the meeting), is not sufficient, and might even be a negative. It is important to look at the activities which are called “ensuring participation of women”. The word “participation” is quite complex. A successful project includes meaningful participation, meaning that just women being present is not enough. However, the lack of active participation of women might be hindered by cultural norms. For example, due to cultural norms some women might be afraid to raise their voice (Int. 1).

An analysis of gender integration in infrastructure initiatives in Bangladesh indicates that using a gender lens on infrastructure has mostly been achieved in partnership with development partners (donors) and through project implementation rather than within government policies and strategies. For example, the Asian Development Bank (ADB) has supported infrastructure projects in Bangladesh which have been particularly effective in promoting gender equality where results include women's enhanced access to education and health care, and the promotion of women's economic empowerment (ICCCAD, 2021). These findings refer to aforementioned donors-related power dynamics in the climate change policies in Bangladesh (Sovacool et al. 2015; Paprocki, 2021; Falzon, 2021). However, specific literature about gender policies within climate change adaptation governance and donors' relations was not found.

In addition, the Second Rural Infrastructure Improvement Project was established, which aimed to improve roads in Chittagong, Dhaka, and Rajshahi. It increased livelihood opportunities by building special stands for women in the market stalls and workshops for women in business management and other income-generating possibilities. As a result, the road improvements contributed to higher enrolment of girls in schools near the project road and made it more secure and accessible for women to commute to work (ICCCAD, 2021). It is a good example how creating an enabling environment can contribute to more opportunities for women (Dankelman, 2010).

Despite efforts that have been made, gender and climate change adaptation related activities often remain in limited profile and women continue to be viewed from a vulnerability lens rather than from a resilience perspective (ICCCAD, 2021). Most of the planned activities put an emphasis on the vulnerability of women. They indicate their role as a mother, caretaker, and cook in the household. The possibility to earn money is motivated to have resources for the family, not being financially independent. Stakeholders do not give women a chance to develop the potential that has been established in their culture.

For example, the new National Plan on Disaster Management provides enhanced strategic guidance on gender issues for mainstreaming in key sectoral areas in terms of disaster risk reduction; "**with sensitivity to gender, disability, age and other vulnerabilities**" (ICCCAD, 2021). FAO's Country Programming Framework (2014-2018) for Bangladesh sets up Priority 1: 'Reduce poverty and enhance food security and nutrition (access and utilization)'. It points out that **special focus will be given to women as primary caregivers** (FAO, 2014).

Analyses show that the dominant discourses in climate change adaptation governance in Bangladesh illustrate simplistic framings of women as vulnerable victims. For example, they are often recognized as an equivalent to children (Int.2). In some cases, gender means “vulnerable women and children”. For example, in 2011, the National Women’s Development Policy (NEDP) under the Ministry of Women and Children Affairs (MoWCA) included a section on “**Women and Children in disasters**”. The provision of Rehabilitation of Women affected by Natural Disaster and Armed Conflicts (section 16.16 of NWDP) includes special measures for the protection, safeguarding, and empowerment of **women and girls** before, during, and after any disaster situation by providing awareness-raising workshops, skills, and other technical support (ICCCAD, 2021).

Scholars show that in climate adaptation research, the most repeated combination of words is ‘women’ and ‘vulnerable’, which not only build up a simplistic image for women but it also hides the fixed gendered inequalities that make them vulnerable in the first place (Tschakert & Machado, 2012). Such narratives cultivate negative stereotypes regarding the role of women in climate adaptation by focusing on their “outstanding” vulnerability to climate change compared to men (Pyburn & van Eerdewijk, 2021). Women in Bangladesh are considered as vulnerable actors due to their susceptibility to climate risks. As a result, the regime of climate change and gender in Bangladesh perpetuates a constraining narrative that disregards the agency that women carry and the existing power imbalances in current society (Pyburn & van Eerdewijk, 2021). As mentioned before (Nhamo, 2014; Acosta et al., 2020), the National Policy should highlight the agency of women in the resilience discourse. Otherwise, such discourses do not support woman’s development, instead maintain marginalization of women in the society making them actors unable to take actions. More about discourses will be elaborated in the next chapter.

It is true that women are more affected by climate change, especially fulfilling the roles of mothers and wives but it does not mean they need to be excluded from the resilience discourse. According to Dankleman (2010), the way to work with women in climate change adaptation is to create an enabling environment which supports them with their daily life challenges. However, interviewee 1 indicates that creating an enabling environment for women to be more resilient is very difficult and a rare practice. For instance, in the Disaster Risk Reduction area, one of the main tools is providing workshops for women to raise awareness. The motivation to participate in the meetings is based on their responsibility for family prosperity. The biggest

challenge in enhancing women's capacities is the limited time to attend training in addition to handling household chores as the prime caregiver for the households. Dankelman (2010) pointed out the concept of energy poverty of women (physical energy poverty): the energy a person puts into all the responsibilities they have; women's individual physical energy is being overloaded. Women attend the training, but also still need to do their care work. It is called a double or triple work burden. The solution is to take away their burdens. Interviewee 1 claims that family members should also adjust to the new timeliness, making climate adaptation education easier for them. This context should be included in every program regarding gender sensitivity (Int.1).

The analysis of the integration of ccGAP in the sectors shows that while there is gender sensitivity in the activities for climate resilience, the way in which gender is addressed is lacking an intersectional approach or a way to create an enabling environment. There is a lack of agency given to women to make them less vulnerable. The actions emphasize the high vulnerability of women, which often creates barriers to see that women are also able to deal with the issues around them when the environment is supporting their needs. Lack of institutional intervention is a limiting factor for enabling an environment where women can be a valuable part of climate change adaptation strategies (Int.1).

4.2.1. Challenges in implementation of ccGAP

The direct performance of ccGAP has been limited. Many rules have been developed, but implementation and monitoring have been lacking. This section will provide information about the implementation of ccGAP, mainly based on the ICCAD review and research in 2021 (ICCAD, 2021). Analyses suggest that ccGAP is not well-known among stakeholders, while they do not feel the ownership of the plan.

The ccGAP is not a well-known document

Bangladesh is a developing country with many wicked social, economic, and environmental problems. However, it seems that gender equality is not a high enough priority to put on the national agenda. The main reason behind this is that governmental actors are not aware of ccGAP. For instance, the ccGAP is not a well-known plan among officials of the Department

of Environment (DoE) as it was produced ten years ago. Respondents noted that they are not aware if actions under the ccGAP have been taken up by other ministries. Respondents from the Ministry of Disaster Management and Relief (MoDMR) pointed out that the ccGAP has not been spread widely and no practical guidance exists for sectors to be able to take up the actions. Similarly, in the Department of Agricultural Extension (DAE), the knowledge about ccGAP reports was limited and its implementation was not considered for 10 years.

The interviewed experts in the research confirmed that the ccGAP is not a well-known document. For example, Interviewee 2, during his consultancy work on ccGAP, tried to find out how ccGAP is used as a tool at the local government level. *“We had a very bleak picture, very bleak picture. Even the people like the local councilors, they don't know about it”* (Int.2).

Respondents from diverse ministries point out some of the significant challenges in implementing ccGAP have been the lack of sector specific goals as well as insufficient distribution of the ccGAP among key ministries. Even the Ministry of Women and Children Affairs (MoWCA) reported they had not implemented the ccGAP because they were not informed of or been given any orientation on the report. The respondent felt there would be no obstacles to integrate the ccGAP into the Department of Women’s Affairs projects as there is a great number of policies at the national level that acknowledge gender issues in climate change action and work in this area has already begun. However, a lack of implementation of already existing national and sectoral policies on gender issues in climate change related to capacity of individuals remains a challenge.

Weak key stakeholders’ participation in the ccGAP

As mentioned in the literature review (Shabib and Khan, 2014), while researching climate policies in Bangladesh, lack of collaboration on gender-specific issues and the exclusion of women’s groups are evident, which might indicate that gender is not prioritized in these approaches. Through the collected data it becomes increasingly clear that there was a lack of participation of key stakeholders in the process of designing and preparing the ccGAP. It is not surprising that now policymakers responsible for its implementation do not feel an ownership of the document and planned actions and importance of the guidance included in the plan. For instance, findings from the Department of Disaster Management (DRR) policies and programs, reviewed in combination with the interviews, suggest that the Ministry of Disaster Management

and Relief (MoMDR) have not incorporated their work with the ccGAP, as it was not produced by them, nor were they actively engaged in its production. Thus, MoMDR has not referred to ccGAP in any of their current policies or programs.

One policymaker noted there was a lack of comprehensive guidance, supervision, and support or follow up from the responsible authorities. Despite food security and agriculture being prioritized under the ccGAP, DAE respondents confirmed the ccGAP was not properly owned by sectoral ministries and departments, which has led to a lack of implementation.

4.3. Explanation of the relationship between the instruments and performance – step 3

4.3.1. Gender equality – actors, interests, and resources

In reviewing the data collected, it becomes increasingly evident that to understand how gender equality is incorporated in climate change adaptation governance, it would be a key to examine the main actors involved in ccGAP and their interests. The establishment of the document and interviews gives evidence that gender equality in the agenda is highly influenced by International Development Organizations (IDO) such as UNDP and IUCN. Besides donor organizations, the governance system includes governmental actions such as following Ministries responsible for implementation of ccGAP (2013): Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Disaster Management and Relief (MoMDR), Ministry of Agriculture (MoA), Ministry of Women and Children Affairs (MoWCA). The following sections will give the analysis of the state interests in including gender equality in the climate change adaptation strategies. The last part will shortly describe the role of the civil society organizations. INGOs, NGOs, activists, and policy entrepreneurs (“climate mafia”, ICCCAD) are actors who are trying to bring gender into the governance landscape, guided by research and educational institutions.

Gender equality imposed by Donors’ organizations

Collected data may suggest that gender equality in climate change adaptation programs was imposed by donors according to the western standards. Donors are one of the most influential actors in the system. For instance, the idea of designing a National Strategy which highlights the importance of gender equality within climate change adaptation strategy did not originally belong to the National Governance. It was an ICUN initiative to prepare the Action Plan on

Gender and Climate Change for developing countries. However, the Ministry of Environment and Forests (MoEF) was part of the developing process. On 23 July 2012, the Government of the People's Republic of Bangladesh and MoEF sent a letter to IUCN asking to be part of the project and support the mainstreaming of Gender in Climate Change Efforts in Bangladesh (4.2.;Appendix 2).

Following the letter, the Steering Committee with 13 members for the project "National Climate Change and Gender Action Plan in Bangladesh " supported by IUCN Bangladesh was established on 15 January 2013. Like BCCSAP, ccGAP was also created with financial support from external sources: the Government of Finland and technical support from the International Union for Conservation of Nature (IUCN) and the Global Gender and Climate Alliance.

Through the collected data it becomes increasingly evident that, in general, climate change adaptation governance in Bangladesh is donor driven. According to Interviewee 4, it is mostly because western countries are responsible for global emissions, which impacts Bangladesh significantly. Furthermore, there is a mismatch between donors' intentions and the real needs of Bangladeshi people.

“There is a lot of donor drivenness; very much so. We see that on climate policy a lot, and it's not just on gender. Sometimes it happens to the detriment. It's very likely that the donor will decide they just want this piece of work and it's going to focus on mitigation, even though Bangladesh needs adaptation and loss, damage” (Int.4).

A Bangladeshi scientist admits that the gender agenda has been “*very much pushed forward by donor communities*” (Int.2), and the government has a specific interest in its incorporation to climate change adaptation strategies.

“As pushed from donors, gender is used as a component to take money from donors as another source of income. Gender equality attracts. It is not really used for gender inclusion or for disadvantaged people” (Int.2).

Dewan (2022) claims that climate change is a metcode to attract donor fundings. Collected data suggest that gender might be also used as another factor to generate more funding opportunities in developing countries. According to scholars, gender empowerment belongs to the groups of so-called “passwords for fundings”, including words like climate change and poverty alleviation. There are concepts which makes a “perfect” combination of buzzwords

which can increase the possibility to get funding in the development project Cornwall & Brock 2005; Cornwall & Eade 2010 in Dewan, 2022)

Why does the idea of incorporating gender equality within the climate change adaptation framework attract governments in a patriarchal society? What is the interest for governmental actors? Imposing gender equality by donors is related to the second group of actors which is the government of Bangladesh.

Gender equality as an extra funding opportunity – resources

The government is considered as an active actor who produces annually new climate change adaptation programs, documents, and strategists. Interviewee 4 claims that the government itself is very involved in the climate change adaptation policies. However, the collected data shows that the government of a developing country may have an economic interest in every new document regarding climate change adaptation. According to Interviewee 2, the government is reproducing the same documents (knowledge products) with just different titles “to bring one idea after another”: NAPA in 2005, BCCSAP in 2008, Community Disaster Management Programme (CDMP 2010-2014), etc. What is also worth mentioning is that often behind each new document there is a “Donor organization” which sponsors either the realizing of the documents or giving funds for the projects. One of the biggest ones is the United Nations Development Programme (UNDP).

“You see that even that they have invested huge resources on CDMP. They ask the UNDP again to produce the knowledge product of CDMP. They know how to get the money from the donors and distribute it. They are like, you know, I would say that UNDP is more like a partner in crime with the government in this area” (Int.2).

The design of policy might not be driven by the care and fulfilling the needs of the most vulnerable and marginalized citizens. *“They focus on realization of plans, actions, projects being blind to the real problems on the ground” (Int.4).* Policy planning and development is centralized while local people do not participate in any part of the process. In terms of actors within the government, every single one has their own interest regarding climate change politics, which is not necessarily the well-being of the whole society (Int.2)

“Everything looks good on paper, like they would care about climate change, gender, even though it is not, because there is no one who has the courage to challenge them. Challenges are not welcome.” (Int.2)

The reason behind that might be the government’s nepotism. All experts in the research agreed that the Government of Bangladesh seems to be highly corrupted, and that might be the reason that money is not distributed to the target groups. *“Money is not going to the poor but for people who have power. It is a matter of corruption” (Int.2)*. This hypothesis is confirmed by the analysis of the annual budget and spent money on the basic sectors in the country like health and education (Finance Division, Ministry of Finance, 2022).

“When you look at the budget about health and education – most of the money goes to the city, to rich people, not the most vulnerable ones, poor ones in the countryside, where climate change has the biggest impact. On the paper, they say ‘money to the poor’, but the budget says something completely different” (Int.2).

When we look at the general fundings for gender equality, we can observe similar problems. According to Guardian (Staszewska et al., 2019), only 1% of gender equality funding is going to women’s organizations which have been proved that are driving gender equality (Weldon & Htun, 2013). Unfortunately, there is some evidence that ambitious governments statements result in inaction, and only little amount of funds go directly for feminists’ organizations in the global south². In addition, Oxfam reports that while self-reported gender equality funding statistics have increased, it is ambiguous if the funding is for gender equality work (Grabowski & Essick, 2020). Evaluations of donor equality policies suggest the policies are inconsistently implemented, and until recently, it was challenging to connect the reported funding statistics to project information necessary to evaluate the quality of gender equality activities. However, the literature about gender funding in climate change adaptation governance is limited.

The findings above reveal a big mismatch between the government’s plans in the strategies and the real distribution of money. According to Interviewee 3, there is a lack of monitoring systems in the majority of the governmental projects. There is no one who can prove if the

² <https://www.awid.org/news-and-analysis/20-years-shamefully-scarce-funding-feminists-and-womens-rights-movements>

government spends money on the “promised” sectors. *“In that sense, the government in Bangladesh is a system of crime” (Int.3).*

In terms of ccGAP, the government of Bangladesh might perceive gender equality as a part of the development sector, not a way to make climate change adaptation more effective. The additional funds which come with a new adaptation programme can be seen as desirable (tangible) resources. It might be an additional source of income from the international organizations, which is not necessarily spent on the women’s issues or projects on the ground.

Power of civil society organizations - knowledge as a nontangible recourse

International non-government organizations (INGO) are playing a significant role in supporting human rights and gender equality in Bangladesh. Many organizations adopt these principles in general guidelines on policies and programs. Aid-funding, distribution of services and empowerment strategies are making a significant difference to women’s lives. For example, INGOs have been responsible for enhancing girls’ access to education, extending the reach of family planning services, improving access to health services, as well as exposing violence against women, trafficking, and child marriages. These organizations provide not only aid and programs, but a formulated ideological commitment to gender equality supported by extensive resources, personnel, partnerships, and outreach (Alston, 2017).

Bangladesh’ civil society force is famous for the existence of so-called “climate mafia” (Int.4). It is a group of people who are policy entrepreneurs. They consist of individuals who exploit opportunities to influence policy outcomes in the field of climate change so as to promote their own goals. In Bangladesh, there are mostly scientists involved in the discourse of climate change adaptation; namely Saleemul Huq (ICCCAD), Atiq Rahman, Ainun Nishat, M. Asaduzzaman, and Q.K. Ahmad, among a few others (Int.4). Interviewee 4, who was researching policy entrepreneurship in Bangladesh, describes it in the following way: it's like a bunch of different actors that coincided around the government, interacting with all these different circles. It's kind of messy”. Even with a chaotic structure, they are able to work closely with government actors and “they are more powerful than decision makers” (Int.4).

National civil society organizations are the most powerful group of actors in Bangladesh (Lopa and Ahmad, 2016; Ahmad et al., 2017). NGOs act as windows on applied knowledge and provide links to sources of information. In terms of adaptation practices, NGOs are crucial to post-disaster work and to ongoing development. Yet the importance of their work lies not just

in the direct aid and training that they provide but also in the formation of standards for action. This is a significant factor as the standards that guide their work are absorbed by the local people and can create future actions and activism. Unlike government actors, women rights and gender equality are underlying standards for NGOs in Bangladesh (Aston, 2017). Larger NGOs have organized themselves into an informal lobby group to raise issues with the government and to lobby for major changes around women's rights.

4.4. Institutions

Institutions in the IG framework focus on “*sets of rules, decision-making procedures and programs that define social practices, assign roles to the participants in these practices, and guide interactions among the occupants of individual roles*” (Young, 2002: 5 as cited in Visseren-Hamakers, 2018a). There are few examples from global governance where international institutions set up gender equality as a “new” direction of global development. For example, since the 1995 Beijing Platform for Action, gender mainstreaming has been incorporated as the new principle for governments on a global level as a crucial direction to achieve gender equality. In terms of climate change, the United Nations Framework Convention on Climate Change (UNFCCC) has advocated gender equality as an inevitable element for climate-related projects and policies to be more efficient (Lau et al., 2021).

Bangladesh participates in international frameworks supporting gender equality, such as the Millennium Development Goals (MDGs) and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). In 2000, Bangladesh signed up the eight MDGs aimed at reducing global poverty, hunger, and disease by 2015. It included promoting gender equality, empowering women, and ensuring environmental sustainability. There is no doubt that transnational attention on these goals has had a significant impact on shaping national policies and steering actors into the direction of incorporating gender equality to climate change adaptation strategies. Bhuyan (2005) points out that the country has made some improvements in the fields of food security, access to training, day care, and advocacy to eradicate violence. Nevertheless, the gender disparities are noticeable in education, politics, property rights, credit access, employment, and health.

On the national level, there are few documents which ensure gender equality in the governmental landscape. For example, the convention of gender equality is embedded in the constitution as a result of the historical battle with Pakistan in the 1970s. The commitment of

women as freedom opponents during the war led to a strong validation of women in the actual outcome of the country's independence. Over forty years, the recognition of women's rights has been advanced and abandoned, with diverse changes in politics. Moreover, there is a constant tension between constitutional and customary law that results in restrictions on the freedom of women and girls (Alston, 2017).

A significant document in terms of women's rights was signed in 1979. Bangladesh committed to gender equality and the empowerment of women, by joining the UN's CEDAW. However, the governments expressed reservations on four clauses that aimed to eliminate discrimination against women in tune with family laws, like equal rights in marriage and divorce, and rights to custody. It means that family law is regulated by religious personal law, which the convention does not cover. These differences often turn destructive when fundamentalists dispute compensation is claimed by women. This could mean that the legal position of women in Bangladesh and their access to resources are not always safe regarding gender equality.

4.5. Integration of gender equality – norms, practices, discourse

4.5.1. Gender equality is not a priority in the agenda

During the analyses of data it becomes clear that ministries officially responsible for implementing the ccGAP are mostly not familiar with the document made 10 years ago. In the review of ccGAP implementation, ICCCAD (2021) listed a few examples which prove that gender equality is not treated as a priority in the agenda by main governmental stakeholders. Interestingly, some of the policies and projects include women's issues even though the stakeholders are not aware of guidance of ccGAP.:

- According to representatives of DoE, activities and projects of the department are not always in tune with the ccGAP, and DoE has not taken any systematic actions to implement the ccGAP. However, some gender aspects are included in a few different projects implemented by DoE.
- MoMDR has specific projects that address gender and climate change/disasters. For example, the National Resilience Programme (NRP) under DDM has four components, one of which is to incorporate gender sensitive actions in DRR. The Department also has an Earthquake Resilient Contingent Plan, where gender is a major consideration.

DAE representatives stated that gender has been considered in different livelihood adaptation and mitigation projects in the past. However, these are not necessarily in conjunction with or as part of the ccGAP.

- Without guidance from ccGAP, DWA has implemented numerous social safety net programs that cross over with the gender and climate change agenda. For instance, The Investment Component for Vulnerable Group Development (ICVGD) is one of the largest safety net programs in Bangladesh, targeting extremely poor and vulnerable women, many of whom are in climate affected regions. The program aspires to increase the economic potential and social empowerment of the most disadvantaged rural women.
- Despite not working closely with ccGAP, DAE aims to advocate women's participation in projects. For example, a project on climate services in partnership with the World Bank named "Agro-Meteorological Information Systems Development Project" aims to strengthen the capacity of the Government of Bangladesh to deliver reliable weather, water, and climate information services and improve access to such services by priority sectors and communities.

Some of the projects are financed by donors like World Bank, but they are not associated with ccGAP. Respondents in the ICCCAD report admitted that there is a significant influence from donors who treat gender perspective as a requirement to implement a project. For instance, DAE mentioned that, as per the donor requirements of this project, they must ensure a certain percentage of women participate in the project. Imposing gender equality by donors might be one of the factors of including gender perspective in the projects.

These findings contribute to the overall discussion about effectiveness of gender mainstreaming introduced in 1965 on Beijing Platform Action as a new standard for global governance to achieve gender equality. However, introducing a general concept of promoting gender in global policies limits the recognition of local complexities and fluidity of gender in every country (Acosta et al.,2020), including Bangladesh. This might be the reason why imposing gender equality by international organization may be ineffective when it is not adapted to the local context.

The lack of prioritization of gender issues in the movement landscape can be seen by actors' involvement. It is feasible, from the findings, that gender is not treated as an individual issue which every ministry must work on. Instead, gender is considered a cross-cutting issue, which is most of the time “promoted”, “included”, “emphasized”, “recognized”, “ensured”. There is no separate attention to work on gender inequality as an underlying driver of vulnerability.

On the other hand, the lack of gender equality is also not viewed as a reason for an ineffective adoption process. Eneason (2012) argues that ignoring gender in the climate change adaptation discourse reduces our capacity for adaptation. Policy makers in Bangladesh do not use this topic as an urgent aspect to bring to the policy. For instance, Interviewee 4 was researching policy entrepreneurs who were trying to get loss and damage into the legal national framework in Bangladesh. According to her observations, “*they did not have a gendered perspective at all*” (Int. 4).

In the collected data, there is a lack of prioritization in ministries of a gender perspective as an intersectional and separate problem to solve. While four out of the six thematic pillars of BCCSAP were addressed in the ccGAP, there was no action plan or associated budget to ensure the implementation of the plan within the MoEFCC (co-author of the plan) or other ministries. Limited in-depth understanding of gender issues by stakeholders results in gender still being conceptualized as ‘women’s issues’ and hence, limited prioritization of gender equality programming is performed. ccGAP is a first step aiming to give more attention to gender equality and climate change adaptation. However, it is not treated with considerable attention and respect by the main stakeholders.

4.5.2. Addressing women in ccGAP – victimization

The previous sections have highlighted few examples of prevalence practice, in the climate change and gender equality governance systems, which is victimization of women. This section will further elaborate on that concept.

ccGAP provides an extensive description of climate change related issues in Bangladesh in relation to gender. It gives an overview of the social, economic, and environmental context of Bangladesh. The main chapter, “The Climate change and gender action Plan” describes four main priority sectors. Then the gender lens is included to the specific sector to recommend how gender issues should be taken into consideration (ccGAP, 2013). How women are represented

and framed in the national policies is an important aspect that can shape their capabilities to become resilient. Nhamo (2014) and Acosta et al., (2020) argue that often too much attention to women's vulnerability can influence framing women as passive victims of climate change. The following analyses will present quotes from ccGAP to illustrate the way women are addressed in the ccGAP and what is given attention.

- Climate change affects women by increasing responsibility due to their husband's displacement.

“The effects of severe weather events related to climate change (cyclones, floods, droughts, salinization of water) and mechanization further amplified this population displacement. In the absence of their male counterparts, the woman's role changed from that of an unpaid family worker to farm managers, resulting in women maintaining a dual responsibility for both the farm-, as well as the household production” (MoEF, 2013: 36).

- The role and contribution of women in the sectors are highlighted, which is often unpaid work.

“Women in Bangladesh have always been involved in essential activities associated with agriculture that includes activities such as rice processing (boiling, drying and husking of paddies) and seed preservation. Although these are essential for the existence of any rural household, they are not awarded any form of recognition since they do not generate income” (MoEF, 2013: 36).

- The document gives an overview of situations when gender inequalities take place.

“Typically, they [women] have limited access to information regarding agriculture and little decision-making power compared to men and are mostly not involved in marketing of agricultural products at all” (MoEF, 2013: 36).

- The content includes descriptions of situations when women are the most affected by climate change. Following quote from ccGAP, is contradictory to the research done by Shabib and Khan (2014), who investigated gender sensitivity in climate adaptation discourses, before publishing ccGAP, and concluded that gender-specific considerations are not promoted in climate change responses.

“Often existing early warning systems do not reach women resulting in them having to run away from impending disasters with clothing and children in hand at the last minute. It is also reported that women also face more violence during and after disasters” (MoEF, 2013: 53).

- It also points out the certain differences in access, use and work between women and men which should be taken into consideration while designing policy.

“Yet, in reality, infrastructure projects do not consider the different needs of women and men, and are often gender insensitive, because it is incorrectly assumed that women and men will automatically benefit equally from new infrastructure” (MoEF, 2013: 54).

- The ccGAP mostly recognizes and puts emphasis on women’s vulnerability in terms of climate change. It acknowledges that climate change impacts can be additional dangerous for women.

“Therefore, the impending impacts of climate change particularly the increasing frequency and intensity of extreme climatic events affecting agriculture, water resources and the livelihoods of poor women not only impede the development activities, but also exerts direct vulnerability to women” (MoEF, 2013: 56).

- The document mainly addresses women as victims of climate change who often live alone in the household, do unpaid work, and experience having less resources than men. Finally, it puts emphasis on women’s vulnerability. On the other hand, the perspective of women having agency, being a “change agent” is very limited in the document. ccGAP does not focus on women’s agency to tackle climate change, except for one example of a group of women who are capable of facing these challenges. They take an initiative to creatively solve problems, despite the inequalities they suffer from or limited resources.

Despite these challenges, women have also become more resilient to disasters, and they demonstrate ingenuity in overcoming problems by drawing on indigenous knowledge, act as community mobilizers in disaster response and demonstrate diverse adaptation coping strategies and mechanisms such as moving to safer places, saving their assets, dietary

adaptations, energy-saving techniques, adapting agricultural practices, and earning income (MoEF, 2013: 54).

What can be a starting point of analyzing women as change agents, instead of victims of climate change, are female-led grassroots organizations. Research conducted in Bangladesh shows that perception of rural women in developing countries as passive victims of climate change can be challenged by the involvement of women in grassroots innovation for climate change adaptation (Khalil et al., 2019). Scholars argue that women can organize themselves on community level based on social capital and trust, mobilize local knowledge and act like a change agent (Khalil et al., 2019).

Findings suggest that proper integration of gender in climate change adaptation governance is not only about including vulnerable groups in the strategy, instead, the way they are represented is crucial. As women in Bangladesh are marginalized and, in general, defined as a vulnerable group in Bangladesh, it becomes obvious and natural that this image is mainstreamed in the policy. However, as (Acosta et al., 2020; Allwood, 2013) state, in the process of policy making, unintended consequences may appear that reflect gendered assumptions. In case of ccGAP in Bangladesh, unintended consequences may be victimisation of women in the climate change adaptation strategies, meaning treating women as vulnerable agentless actors. Consequently, it can limit the potential of the adaptation strategy itself. Additionally, the findings contribute to the discussion about gender mainstreaming being ineffective (Acosta et al., 2020), and the findings suggest the importance of the advocacy for gender transformative adaptation aiming at transformation of the power dynamics and structures that serve to reinforce social and gendered inequalities (Hillebrand et al, 2015).

4.6. Social and gender inequalities in Bangladesh – social structures

Social practice might explain the weak regime of climate change and gender equality. According to Alston (2017: 173), *“the fight for gender equality is an ongoing and deeply ideological battle”*. Cultural context in Bangladesh and the role of women in the society are probably the most influential within the four clusters of explanatory factors.

What might hinder development of climate change and gender governance are very indisputable inequalities in Bangladesh, between women and men, between urban and rural,

between landowners and the landless, between the wealthy and poor, and the educated and uneducated. Poverty is a main element of Bangladeshi life. Approximately 35 million Bangladeshi people live in extreme poverty (UNHRC 2005). Several global statistics give some insight into poverty scale and gender inequalities in Bangladesh. For example, Bangladesh is ranked as a Lesser Developed Country on the Human Development Index and is ranked 129th of the 191 countries represented (UNDP 2021). On international gender equality statistics Bangladesh also ranks low. The Gender Inequality Index places Bangladesh at 71st out of the 146 countries listed (UNDP, 2022).

Bangladesh is one of the largest Muslim countries in the world with approximately 90 per cent of its people practicing this religion, most of them Sunnis. The specific social status of women, according to Muslim, and their role in Bangladeshi society reflect little priority for gender components in policies. It is a society where women are not free and viewed as subordinate to men. A definite model of patriarchy strongly affects Bangladeshi society, overshadowing every aspect of life (Alston, 2017). Women are marginalized in plenty spheres including the law, recognition of human rights, economic participation, marriage and family customs, land and resource control and they experience very high rates of gender-based violence. Moreover, Purdah, the practice of protecting women from the view of other men, is broadly practiced, particularly in rural areas the most affected by climate change. Women's freedom of movement and autonomy is highly restricted. Patriarchy in Bangladesh has been defined as: "*A distribution of power and resources within families such that men maintain power and control of resources, and women are powerless and dependent on men*" (Cain et al. 1979: 406).

According to Alston (2017: 14), "*in Bangladesh women are subject to a widely sanctioned and strictly enforced hegemonic masculinity*". Men control land ownership, decision-making roles, leadership, and commerce. Women possess very little of their country's land area even though they are very active in agricultural production and labor. There is a lack of a legal framework which would protect vulnerable women. For example, according to the land act, households without a male member are not eligible to get land from the government. In everyday life, women and girls work in various types of unpaid work, including household management and agricultural work. They are crucial to the Bangladesh economy, but their contribution is largely unrecognized. In a sense, men work outside and publicly, while women work inside the house being responsible for domestic work, reproductive work, non-agricultural work, and post-harvest activities (Hoque and Itohara 2008; Zaman 1995).

To conclude, women's status in Bangladesh consists of restrictions on movement, customs, laws, and the dominant Islamic religion, and a widespread acceptance of violence against women, and practices such as dowry and early marriage. Due to the culture, women are excluded from the public, economic, and political world. They have fewer resources, less power, impact, and independence. Culture and religion have been significantly challenged establishing gender and climate change governance. In those social contexts implementation of gender equality is extremely difficult, and it requires social transformation. Above-mentioned, could explain the weak prioritizations of gender equality in the governance landscape. Furthermore, it explains the motivation of the International Development Organization to bring the paradigm of gender equality from the Global North with intention to bring better life, prosperity, and voice for marginalized women in Bangladesh.

Present social and gender inequalities in Bangladesh could be considered as an explanatory factor of weak implementation of ccGAP and behavioral relationship between two instruments. The fact that women are marginalized in the Bangladeshi society and being more and more affected by the impacts of climate change, might be the reason that international development organizations wanted to introduce the concept of gender equality, as a way to achieve sustainable development in the future. The findings refer to modernization theory and global development aiming for rapid transformations of societies based on learning from North experiences (Williams et al., 2009, p. 269). However, the findings show that gender mainstreaming introduced by global governance, is not enough in the face of embodied social structures like patriarchy. According to Resurrección et al. (2019) there is not real change unless the power dynamics defined by patriarchy, privilege, and prejudice are transformed. Therefore, there is need for gender transformative climate change adaptation which *address the roots of vulnerability and exclusion through action that changes the fundamental attributes of a system in response to climate and its effect* (Agard et al., 2014; Hillebrand et al, 2015, Resurrección et al., 2019, p: 3).

5. Conclusion

The following section will provide an answer to the main research question and subquestions through the synthesis of the findings above. The questions posed at the beginning of this research are: *How does climate change adaptation governance incorporate gender equality at the national level in Bangladesh?*

To answer these questions, three sub-questions were articulated:

Sub-question 1: Which governance instruments integrate gender equality in climate change adaptation policies?

Sub question 2: What is the relationship between ccGAP and climate change adaptation instrument (BCCSAP)?

Sub-question 3: To what extent gender equality is implemented in the climate change adaptation policies?

Sub-question 4: How do the actors, discourses, interests, and systemic factors explain the gender incorporation within the climate change adaptation governance?

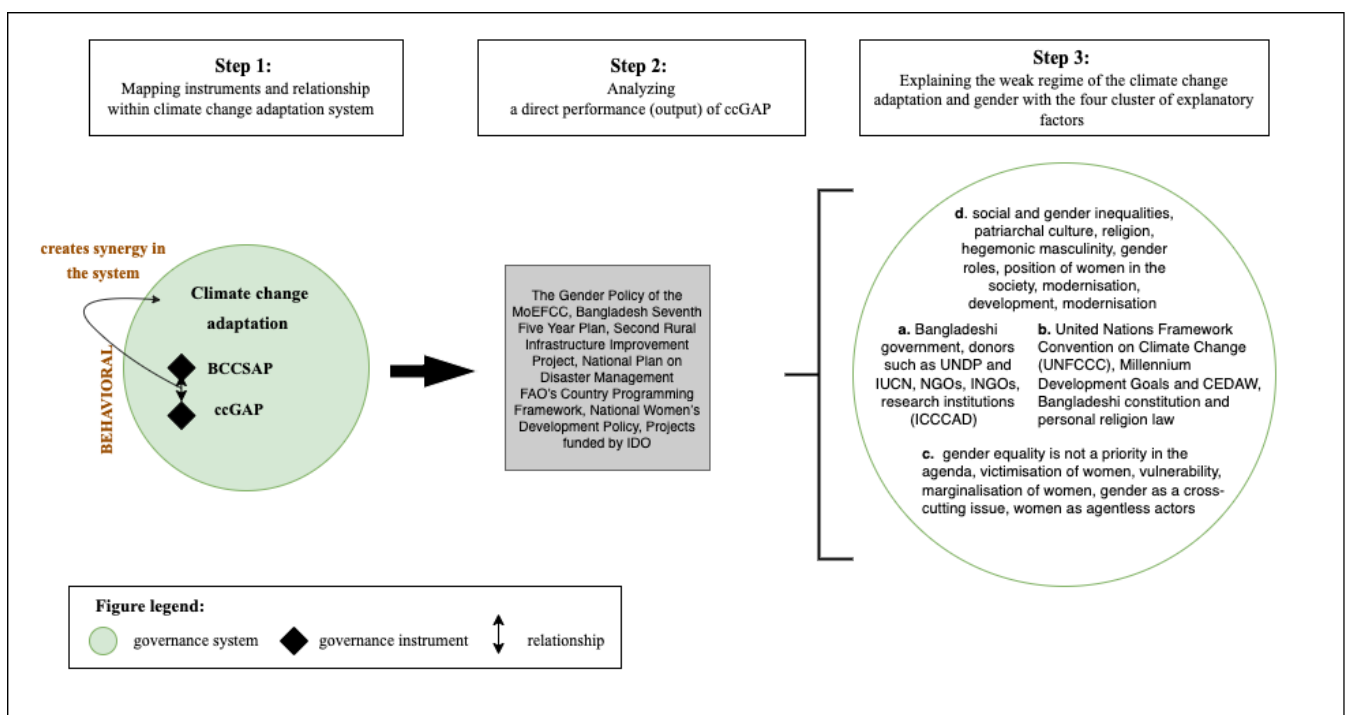


Figure 5. Concluding findings

The key instrument in the climate change adaptation governance is the BCCSAP, which is a knowledge strategy and action plan for adaptation in Bangladesh. In 2013, the ccGAP was published to incorporate a gender perspective in the existing BCCSAP. The ccGAP is a continuous project of the BCCSAP in which gender had a little, but important, attention. To extend the knowledge and take more actions towards gender equality in climate change activities, the MoEF decided to facilitate a more advanced document with special attention on gender in four pillars. The relationship between ccGAP and BCSSAP is identified as behavioral.

The Integrative Governance of these sectors begins to struggle in weak participation of national actors in the design and implementation process. Firstly, the ccGAP is a rarely known document across state actors. It may result in low prioritizations of gender equality in the national agenda due to lack of cooperation, interactions, and knowledge sharing about the strategy. Secondly, so far gender integration in the relevant sectors shows that there is an incremental progress in including an intersectionality lens in newly designed policies. Implementation of ccGAP has been extremely limited due to a lack of alignment with other national policies and guidance on how to implement the plan, limited coordination, and interrelation between ministries in general.

There are several interconnected narratives at stake in Bangladesh which may explain insufficient incorporation of gender in the climate change adaptation governance. Firstly, International Development organizations have brought to the country the discourse of gender equality as a part of development strategy. Instead, integration of gender equality is not recognized as a factor increasing adaptation capacity, but as a part of development strategies. Therefore, might not be perceived as a way to achieve successful adaptation. Instead, the findings suggest the additional fundings may be the one of the drivers for government actors to include gender equality into policies. As a result, gender perspective has little priority among other severe problems in Bangladesh. Secondly, Bangladesh is deeply rooted in patriarchal culture where women are agentless actors in terms of climate change adaptation as dependent on men. Women in the climate change adaptation debate are viewed as vulnerable victims. Because women are marginalized in law, recognition of human rights, economic participation, marriage and family customs, gender issues do not have high priority in society. Women are not given a space to find their own agency, contribute as relevant actors and enhance the resilience of the whole country. This thesis finds that it matters how vulnerable and marginalized groups are framed in the climate change strategies rather than just to prioritize their inclusion and mainstreaming.

To conclude, this thesis finds that the incorporation of gender equality within climate change adaptation governance at the national level in Bangladesh is more weak than effective. Overall, gender equality is a cross-cutting issue within climate change adaptation governance. There is considerable documented attention on gender equality in climate change adaptation

instruments. However, gender and related activities often remain in limited profile and women continue to be viewed with a vulnerability lens rather than from a resilience perspective.

6. Discussion

This research has applied an adapted version of the IG framework as introduced by Visseren-Hamakers (2018a, 2018b). This thesis contributes to the discussion on how to apply the framework. In addition, the combination of analyzing two governance systems which overlap makes it a unique way of applying the IG framework. It allowed to zoom in on the topic of gender equality within the context of climate change. However, it is limited to looking at the bigger context of climate change and gender governance systems itself and other instruments. Due to the limitation of the data collection, it was not possible to establish indirect performance, which would enrich the overall conclusions. During the research, the author was reflecting on whether the IG framework is a correct theory to answer the research question. The author acknowledges that gender mainstreaming theory (Alston, 2014) or Environmental Policy Integration (EPI) framework might be more appropriate in this case, as these analyze integration of one issue into other policies. On the other hand, applying the IG framework in this research, helped to reveal the duality of gender integration in climate change adaptation governance. While gender equality is incorporated “on paper”, looking at the actors involved in the process, institutions, and implementation efforts, showed that this incorporation in practice is questionable and limited. The IG framework helped to establish the qualities of its incorporation. Looking at the relationship between the instruments, it helped to discover the donor driven nature of the governance system.

Climate change adaptation governance system in the Global South belongs to broader development discourse. According to IPCC (2007a), the most in need of support of adaptation to climate change are the poorest people in vulnerable countries, affected by climate change. It can be explained by the fact that the capacity to adapt to climate hazards depends on factors measuring (under) development such as poverty, gender inequalities, political marginalization, meaning that it is more challenging to cope with climate impacts and other factors at the same time (Anderson, 2011). Therefore, these links between adaptation and development have developed an integrative approach to tackle the two issues together, instead of designing policies separately (Klein et al., 2003, Klein, 2004; Huq et al., 2010). Scholars have agreed upon strong synergies between two government systems: adaptation as a way forward of

achieving sustainable development (Huq & Ayers, 2008); not recognizing adaptation in development practice can result in maladaptation (Barnett & O'Neill, 2010). However, the central point of discussion and development of both governance is the vulnerability, and the way how the adaptation can reduce vulnerability of the poor (Ayers & Dodman, 2010; Huq & Ayers, 2008).

This thesis has therefore contributed to vulnerability studies within climate change adaptation and development governance systems. By adopting the gender equality aspect in the context of climate change, it reflects an interdisciplinary point of view. It also addresses a need to tackle climate change adaptation issues in an integrated manner with social aspects to increase capability to adapt (Sen, 1999). Furthermore, the thesis finds that it matters how vulnerable groups are framed in the climate change strategies rather than just to prioritize their inclusion and mainstreaming. The integration approach of gender equality within climate change adaptation governance in Bangladesh might not be successful yet. However, the rising need for gender equality and modernization of societies might be a result of the Global North's discourse, and thus not necessarily the pressing problem in Bangladesh for instance.

Enarson's (2012) appraises that gender inequalities, environmental degradation, and vulnerability to disaster are so strongly linked that ignoring gender risks perpetuating degradation and reducing our capacity for adaptation. Unfortunately, the findings confirm that the central level of decision-making undervalues gender-based climate adaptation (Ahmad & Rahman, 2011). However, Ferree's (2012) concept of radical realism allows an analysis of the possibilities that climate change supports a reimagined space where gender equality is centralized. She claims that ideas that may occur radically in a specific society at a specific time may occur quite cultivated at others. Alston (2017) argues that a radical adaptation should be a part of climate change terminology. This concept explains adaptation policies and practices that include gender equality and human rights as taken for granted and straightforward in any actions. Pelling (2011:3) suggests in "*Adaptation to climate change: from resilience to transformation*" that "*without care, adaptive actions can deny the deeper political and cultural roots that call for significant change in social and political relations if human vulnerability to climate change associated risk is to be reduced.*"

6.1. Recommendation for further research

It is recommended to extend research for indirect performance, which can be done through field study, including participatory gender research. When examining gendered vulnerability, it is essential to focus on women's agency as key to examine their adaptive capacity, which remains an understudied area in research (Rao et al., 2019). All experts in the research suggested putting more emphasis on women's agency in the climate adaptation strategies. Therefore, it is important to take into consideration that vulnerability is possible to solve unique ways of surviving – thus, women are exposed to alternative resources of self-empowerment, collective agency, and grassroots modes of organization to dismiss the impacts of gendered vulnerability. Research in these areas would be beneficial to present the possible agency that women have proved and include the new solutions in the climate change adaptation programs.

6.2. Recommendations for policy makers

Create the enabling environment WITH and FOR women to support their agency

- Encourage and ensure the participation of women in climate adaptation strategies at all levels within relevant government ministries, departments, institutes and civil society organisations.

In order to achieve the objectives in ccGAP, there is a need to conduct rigorous, multi-scalar, participatory and holistic gender analyses that define ways to address context-specific constraints. Eventually, invest in basic social services and infrastructure – particularly health care, water, sanitation, childcare, and laboursaving technologies – that reduce women's workloads and build resilience without further curtailing their time and self-determination (Resurrección et al., 2019).

- Highlighting the agency of women within climate change adaptation action plans and policies.

Following concept of gender transformative adaptation, there is a special need to address the roots of vulnerability through actions that change the attributes of the system that we live in (Agard et al., 2014; Hillebrand et al, 2015, Resurrección et al., 2019). Therefore, it is

recommended to create opportunities for women's self-organization, critical reflection, and partnerships with civic organizations to strengthen women's claims to their own bodies, to social and natural resources, and to authorities' accountability. Create spaces where women's voices and rights are duly recognized and exercised. Promote women's equal participation and voice in existing civic organizations to share experiences and solutions across groups and sectors, including transnationally (Resurrección et al. 2019). Make female grassroots organizations initiatives transparent and use as a representation of women agency within climate change adaptation strategies.

Synergies between global, national level actors and NGO's

Ministries' agencies should be informed about the existence of ccGAP and ensure that gender analyses are a priority area in their upcoming policies and strategies. The mandate of MoE on gender mainstreaming across ministries and sectors should be effectuated and enabled and regular consultations with the UN Women and other women's organizations and institutions should support this process.

To enhance the sufficient implementation of ccGAP, the Ministry of Environment, Ministry of Disaster Risk Management and NGO's should cooperate closely – from the local to central level. Ruszczuk et al. (2020) speaks of a need for local authorities to incorporate initiatives into local policies and actions. This can be done through building networking based on the concept of collaborative governance (Ansell, 2008). Sharing technical knowledge, human resources, making partnerships within the spheres of government, civil society and market would reduce the implementation gap. Regular platform meetings about gender and climate change governance with involved stakeholders to ensure transparency and stress the importance of incorporating gender equality within the governance system are highly recommended. Furthermore, monitoring of projects on the ground and assessment of the funds dedicated to gender equality programs if they directly impact the livelihood of women.

- Redesigning donors funding models

Fundings for gender equality must be partly moved directly to feminist movements in Bangladesh, as they have an overview of needs of women and, therefore, how to create enabling environment for them to become resilient. In order to do so, the bureaucratic requirements need to be changed to allow small and medium NGOs to be part of climate change adaptation

projects. In addition, to effect change, donors need to not only invest in movements, but to critically reflect on their policies and practices.

Donors should engage feminist movements as equal partners, work to transform their own institutions, and campaign to build an interdependent and coherent feminist funding ecosystem that unlocks resources for human rights and gender justice in the climate change adaptation governance (Staszewska et al., 2019).

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