

A method for gender-sensitive adaptation to climate change

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Abstract: Climate change and adaptation to climate change tend to have disproportionately negative impacts on women. Given that existing vulnerabilities and inequalities commonly are reproduced through adaptation, adaptation planning should be considered a political process. For both moral and pragmatic reasons there is a need to include gender concerns in adaptation planning, but currently there are few suggestions for how this should be done in practice. In this paper, it is suggested that three objectives that need to be fulfilled to achieve a gender-sensitive adaptation are inclusive processes, just outcomes, and transformational change. Gender impact assessments (GIA) offer an established approach for evaluating policy and planning but focuses on outcomes and do not account for uncertain future developments that adaptation policy ought to consider. A method called value-sensitive scenario planning (VSSP) is proposed as a complementary approach for addressing gender concerns in long-term adaptation planning. It is shown that VSSP has potential to further inclusive processes and just outcomes, but does not necessarily facilitate much-needed transformational change. However, it is a promising start for promoting justice in and through adaptation planning.

Keywords: gender, justice, adaptation, method, gender impact assessment
value sensitive design, scenario planning

Introduction

Different groups are differently affected by climate change, and women as a group are disadvantaged. For start, women tend to exhibit greater vulnerability and a lower degree of resilience and adaptive capacity in the face of climate change (Lau et al. 2021). As a result, the many impacts of climate change become more severe for women. Furthermore, measures addressing climate change tend to have disproportionately negative impact on women, and thereby enhance gender inequalities (Shi et al. 2016). This is an example of the triple injustices of climate change: that those who contribute the least to climate change are most vulnerable to its impacts, and frequently disadvantaged by responses to climate change that reproduce or enhance inequality (Krause

2018). Hence, there are moral reasons for addressing gender issues when planning and implementing adaptation to climate change. In addition to these, there are pragmatic reasons; Pelling and Garschagen (2019) point to the twofold case for equitable adaptation: “it is a moral duty, and it improves economic productivity, social cohesion, health and peace” (p. 328).

The importance of integrating a gender perspective in climate policy has been widely recognised. For example, the Intergovernmental Panel on Climate Change (IPCC), the Green Climate Fund, and the Global Environment Facility, have long required gender equality to be addressed across all aspects of delivery (Röhr 2007). The Paris agreement specifies that adaptation actions should pay attention to aspects of justice, consider vulnerable groups and communities, and be ‘gender-responsive’ (UNFCCC 2015). Despite this, it has been argued that gender blindness is far too common and that gender equality is not satisfactorily addressed in climate policy (Lau et al. 2021). IPCC has found “very few examples of successful integration of gender and other social inequities in climate policies to address climate change vulnerabilities and questions of social justice” (Schipper et al. 2022, p. 2700). Moving forward, it is imperative to integrate gender considerations in the design and implementation of climate policies. Regrettably, what a gender-sensitive adaptation means in practise is often left unsaid.

This paper aims at remedying this, and initiate a much-needed discussion on concrete approaches for integrating gender concerns in the context of adaptation planning. While adaptation policy has been the focus of much research, the relationship between the design of adaptation processes and how it can encompass social and climate justice is still underexplored (Schlosberg, Collins, and Niemeyer 2017). In this paper, I argue that adaptation is an inherently political process and that in order for this process to be truly gender-sensitive, three objectives need to be fulfilled. These are inclusive processes, just outcomes, and transformational change. With this in mind, I discuss how it is possible to further these objectives in adaptation planning. I begin by turning to the established approach Gender Impact Assessments (GIA), but find that it fails to acknowledge the impact that uncertain future development can have on the effectiveness of adaptation policy and measures. To address this shortcoming, I propose a method called Value Sensitive Scenario Planning (VSSP), that has been developed in previous work with the purpose of enabling discussions on ethical values in the context of local long-term adaptation to sea level rise (Wedin and Wikman-Svahn 2021). The potential for the method to be adopted to specifically address gender concerns in the face of uncertainty and thus promote a gender-sensitive adaptation, is discussed towards the end of this paper.

Before moving forward, however, it is important to stress that gender is only one factor influencing the impact that climate change has on individuals. Climate change affects all people on the planet, but numerous factors besides

gender, such as race, class, age, and other attributes influence how we experience and face it. These attributes intersect, creating multiple identities and levels of vulnerability in the face of climate change (Lau et al. 2021). Considering this, it has been argued that an intersectional perspective can help gain a fuller understanding of the mechanisms behind climate injustice (Sultana 2021; Amorin Maia et al. 2021; Kaijser and Kronsell 2014). That said, while it is important to keep this bigger picture in mind, there is also value in examining single factors. For this reason, as well as for the sake of limiting the scope of the investigation, I will focus on gender in this text.

Adaptation as a political process

In order to understand what a gender-sensitive adaptation should look like, it is important to first understand what the concept of adaptation can involve. The IPCC has defined adaptation as “the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities” (IPCC 2022). Adaptation measures range from farmers changing crops to better fit new precipitation patterns, to changing routines in elderly care to respond to increasingly frequent heatwaves, to large-scale infrastructure investments such as dams to protect against rising sea levels. Much adaptive action is of the first kind; carried out by individuals to face already occurring changes. However, as the effects of climate change are becoming increasingly severe, adaptation has become a central part of forward-looking planning, which is the focus of this paper.

Adaptation planning builds on the idea that by taking deliberative action now, it is possible to make future living conditions under the impacts of climate change as bearable as possible (Füngfeld and Schmid 2020). The process of adaptation planning is typically challenged by decision-making under great uncertainty, including uncertainty regarding the magnitude and impacts of future climate change as well as uncertainty on societal developments that will affect our ability to adapt. Moreover, adaptation planning involves “tension between actions that are urgently required, what is feasible given constraints of time and resources, and what may be required and desirable by justice ideals” (Byskov et al. 2021, p. 2). This makes adaptation planning a complex political process, subject to challenging trade-offs, and disagreements on priorities in public policy and on what should be protected.

Like all political processes, adaptation regularly affects different groups and individuals unequally. This becomes especially problematic when costs and benefits are unjustly distributed, and existing injustices are exacerbated (*ibid*). For example, when limited funds are invested in areas of high economic value or political interest to a significantly greater extent than poorer peripheral areas (Pelling 2011), or when investment in expensive green resilience

infrastructures cause increased gentrifications which push out poor households from resilient neighbourhoods (Byskov et al. 2021). In cases like these, adaptation that is positive to some ends up as maladaptation for others, and especially for those already vulnerable (Eriksen et al. 2015).

Historically, adaptation has been focused on adjustment against external problems that climate change give rise to. This is known as incremental adaptation, and is defined by the IPCC as “adaptation that maintains the essence and integrity of a system or process at a given scale” (IPCC 2022, p. 2899). However, it is typically this kind of adaptation that gives rise to unjust outcomes and maladaptation. Incremental adaptation has therefore been criticised for failing to recognise that adaptation is a political process that takes place in a political context, where some groups are better equipped to shape and utilise adaptation policy and measures. In the light of this, transformational adaptation has been proposed as an alternative strategy. Transformational adaptation is defined by the IPCC as “adaptation that changes the fundamental attributes of a social-ecological system in anticipation of climate change and its impacts” (IPCC 2022, p. 2899). A central idea of transformational adaptation is that if the goal of adaptation is to minimise harm, this can be achieved by reducing vulnerability and increasing adaptive capacity, instead of (or in addition to) facilitating incremental adjustment to climate change.

Vulnerability is defined by the IPCC as “the propensity or predisposition to be adversely affected” and is considered to be one determinant in risk, along with exposure to hazard. (IPCC 2022, p. 2927). Vulnerability has long been a central concept in climate justice and refers to characteristics or qualities of social systems that create potential harm (Doorn 2017). It is important to stress that women are not by their nature vulnerable, but that societal structures leave women in a disadvantaged position to face climate change.¹ For adaptation planning to become truly gender-sensitive, it must challenge the norms and social structures that exacerbate the impacts of climate change on women’s lives and livelihoods, and affect how women can utilise resources for adaptation (Andijevich 2020). Concretely, this would include providing resources and spaces for women and other vulnerable groups to empower themselves to respond not only to climate change, but also other global challenges (Füngfeld and Schmid 2020).

A related concept, which also has gained increasing influence in recent years, is resilience. Resilience is defined as “the capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend

¹ Arora-Jonsson (2011) has pointed out that in the face of climate change, women typically are described as either vulnerable (typically in the global south) or virtuous (typically in the global north). Bunce and Ford (2015) emphasise the risks of perpetuating gendered stereotypes of vulnerability and in depicting women as possessing specific skills and knowledge that are needed for understanding the risks posed by climate change.

or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure" (IPCC 2022, pp. 2920-2921). The term resilience was originally used in the context of ecological systems, but has in recent years increasingly been used to describe socio-ecological and social systems, and has gained a central role in the climate change discourse (Doorn 2017). There is a transformative potential in resilience planning, as resilient systems do not necessarily return to status quo after a disturbance, but can reorganise or change as long as they maintain their essential function, identity, and structure. Building resilience in society can therefore be understood as another way to reduce vulnerability in the face of climate change. Interestingly, resilience theory has received criticism for failing to account for justice concerns. It has been suggested that the systems perspective allows for inequalities and trade-offs within the system to be accepted (Meerow et al. 2019). That said, as with transformational adaptation, resilience offers useful analytical tools for discussing adaptation which goes beyond preserving status quo, which will be helpful in formulating a gender-sensitive adaptation planning.

Objectives for a just adaptation

In the previous section, I suggested that adaptation planning is a political process and unless care is taken, existing injustices will be reproduced through it. Rather than merely focusing on external risk, adaptation planning thus needs to address social structures that reproduce inequality and vulnerability. In the literature on the topic, however, little has been said about what this means in practice. As a next step in my process of trying to concretise what a gender-sensitive adaptation planning should look like, I propose three objectives that a gender-sensitive adaptation should aim to fulfil: inclusive processes, just outcomes, and transformational change.

Inclusive processes

Adaptation will be an ongoing task for local and regional planning authorities for the foreseeable future. Given that adaptation exists in a spatial context, it is important that adaptation planning is attentive to place-specific conditions, including the local community's preferences, their value system and locally embedded modes of governance (Fünfgeld and Schmid 2020). To achieve this, an inclusive participatory adaptation process is a necessity. Unfortunately, in adaptation planning, participation and inclusion of the most marginalised is rarely achieved (Anguelovski et al. 2016). Inclusion of women and other marginalised groups can be motivated both with moral and pragmatic arguments. The moral reasons for including women in the adaptation process relate to the fact that individuals have the right of control over their environment (Nussbaum 2011). Including women (as well as other marginalised groups) in the

adaptation process would thus further justice in itself, specifically procedural justice.

Moreover, a broader engagement of different actors in decision-making tend to bring about better adaptation policy. IPCC points out that participation of historically excluded groups, including women, contributes to more equitable and socially just adaptation actions (Pörtner et al. 2022, p. 97). It has been shown that marginalised groups often possess valuable knowledge about their local and socioeconomic environment that enables a more efficient adaptation planning (Byskov et al. 2021). On the contrast, when women are excluded from the decision-making regarding climate policy, practical and strategical needs of women tend to be forgotten. Furthermore, there are gendered differences in how men and women perceive climate change, and in their preferences and motivations behind adaptation (Brink and Wamsler 2019). On average, women tend to be more risk averse and therefore recognise climate change as a more critical challenge than men do. Unless these differences are recognised and accounted for, it can affect which adaptive action is chosen, as adaptation goals tend to be operationalised on the basis of estimations of acceptable risk levels, and on the basis of what is considered achievable in terms of cost, timescale and political will (Edvardsson Björnberg and Hansson 2012). Gender concerns thus need to be mainstreamed throughout the adaptation decision-making process, “from the stage where climate threats and vulnerabilities are mapped and adaptation options identified to the stage where options are assessed, implemented and evaluated” (*ibid*, p. 218). This engagement must be thorough rather than tokenistic, to avoid “entrenching pre-existing gender inequalities and vulnerabilities” and bringing about “interventions which are maladaptive or adaptations that are more effective for gender than another” (Bunce and Ford 2015, p.1).

Importantly, a method for gender-sensitive adaptation planning must be sensitive to inequalities in terms of power and possible epistemic injustices. Epistemic injustices refer to injustices related to knowledge. In adaptation planning, this can manifest through differences in climate literacy where some actors are unable to participate in adaptation planning, even though they formally have access to deliberative and consultatory spaces (Byskov et al. 2021). A method for integrating gender in adaptation planning thus needs to be inclusive in the sense that there are neither formal nor informal barriers for participation.

Just outcomes

Besides inclusive processes, a gender-sensitive adaptation planning needs to ensure just outcomes. Adaptation involves adjustment to climate change and its effects, to moderate harm or exploit beneficial opportunities. As already mentioned, particularly incremental adaptation commonly gives rise to unjust outcomes, and women are frequently disadvantaged. This is a matter of

distributive justice. Distributive justice concerns how costs and benefits or social goods and ills are allocated across society (Newell et al. 2021). Within political philosophy, distributive justice seeks to provide guidance on the societal distributions of risks and benefits, and consequently assess if current policies are acceptable or whether they should be modified (Lamont and Favor 2017).

Central questions in the discourse on distributive justice include what the most appropriate mode of distribution is, and what the unit to be distributed should be. Suggested principles for a just distribution involve egalitarian principles that prescribe that each person is given an equal amount of resources, Rawlsian difference principles that allows inequality as long as it benefits the least well-off, and utilitarian principles that would prioritise aggregate welfare maximisation (*ibid*). However, while these principles typically are developed as objectives to be adhered to in an ideal world, adaptation planning is a response to a very non-ideal situation. Real-world adaptation planning is characterised by tension between actions that are urgently required, what is feasible given constraints of time and resources, and what may be required and desirable by justice ideals. It is therefore unlikely that adaptation will live up to justice ideals. Instead, bottom-up principles of justice should be formulated, which guide outcomes to become good-enough. A good-enough approach in distributive justice in adaptation planning would at the very least involve not enhancing existing inequalities through maladaptation. It should also, when possible, seek to benefit those who presently are the most vulnerable in the face of climate change and increase their adaptive capacity.

In the case of adaptation planning, the impacts of climate change and harms that adaptation can bring are to be considered social ills, and the safety and potential benefits that adaptation can bring are to be considered social goods. Goods can include, for example, “increased utility gained from better-adapted infrastructure, such as an urban park with plenty of shaded areas, to individual financial gains associated with better adapted flood risk management in residential areas, and to social goods such as increased community cohesion in a neighbourhood as a result of regular wildfire preparedness training exercises to increase adaptive capacity” (Fünfgeld and Schmid 2020, p. 442). Furthermore, it is likely that the need to adapt will be greater than either the capacity or the political or societal will to adapt, and in such circumstances, distributive justice will concern how to distribute the shortcomings (*ibid*).

It is important to be aware of the full range of goods and ills that adaptation brings in order to be able to assess the distribution of them. Importantly, the goods do not merely include resources and material goods, but in line with transformative adaptation, also reduced vulnerability and increased adaptive

capacity.² This resonates with the capability approach, which has been suggested as a promising normative framework for adaptation (Schlosberg 2012). The capability approach claims that it is not resources, nor primary goods that should be distributed justly, but capabilities. The capability approach builds on two ideas: first that the freedom to achieve well-being is of primary moral importance, and second, this freedom is to be understood in terms of people's capabilities, i.e., "their real opportunities to do and be what they have reason to value" (Robeyns and Byskov 2021). As mentioned in the previous section, a gender-sensitive adaptation planning does not merely offer protection against climate risks and hazards but will also reduce vulnerability and increase adaptive capacity and resilience of women. Through doing that, the ability for individuals to do and be what they want is increased. A gender-sensitive adaptation planning needs to consider this as it strives for just outcomes, and the capability approach could potentially be guiding the process.

Transformational change

Third and finally, a gender-sensitive adaptation needs to consider the potential for transformation. As argued in the previous section, adaptation that merely operates within existing structures is likely to reproduce inequality. There is a need for adaptation to seek to implement transformational change and address the social structures which shape adaptation. In the most recent IPCC report, the importance of promoting "climate-resilient, gender-transformative development pathways" is raised. It is suggested that "rather than merely emphasising the inclusion of women in patriarchal systems, transforming systems that perpetuate inequality can help to address broader structural inequalities not only in relation to gender, but also other dimensions such as race and ethnicity" (Schipper et al. 2022, p. 2704).

By taking on a transformative perspective, it is possible to meet more long-term strategic needs of women and other marginalised groups, instead of short-sighted practical needs. This arguably involves a "re-politisation of gender", where policy and practice go beyond token efforts for change (Huyer et al. 2020). While less specific (and possibly harder to achieve) than just processes and just outcomes, the potential for transformation needs to be considered throughout the adaptation process, including the stage where structures for inclusive process and just outcomes are formulated and implemented. Importantly, even when adaptation measures are of such limited scale that they will not change fundamental features of society, an awareness of how social structures influence how we are affected by climate change and adaptation is crucial to make adaptation gender-sensitive.

² That said, it is important that material goods and resources are not forgotten. The ability to make use of resources is of no use if there are no available resources. In that sense there is a material dimension that determines vulnerability and adaptive capacity (Adger and Kelly 1999).

Approaches for highlighting gender in adaptation planning

Having formulated that gender-sensitive adaptation should aim to achieve just processes, just outcomes and transformational change in relation to gender, I will turn to the question of how these objectives can be furthered through concrete action in the adaptation planning process. A method for gender-sensitive adaptation should ideally provide practical guidance in adaptation planning, and offer insights on how well adaptation policies and measures manage to fulfil the objectives for a gender-sensitive adaptation. An established approach for raising gender concerns in policy-making is Gender Impact Assessments (GIA). Impact assessments, broadly speaking, can be understood as “the process of identifying the future consequences of a current or proposed action” (IAIA 2020). The overarching goal of any impact assessment is to analyse potential effects of plans or policy actions prior to their implementation (Verloo and Roggeband 1996). The goal of GIA is thus to analyse potential impacts in the domain of gender equality.

Any impact assessment consists of (1) a description of the actual situation prior to the implementation of a policy plan, and (2) an assessment of the probable development of the situation in the absence of the implementation of any policy plan. This is known as the zero alternative. Furthermore, the impact assessment offers (3) a detailed analysis of the content of the policy plan itself. Having elaborated on the current situation, probable future development and the policy plan, the impact assessment (4) describes potential effects, and (5) weighs positive and negative effects against each other (*ibid*). GIA tools have been developed and implemented since the Fourth United Nations’ World Conference on Women in Beijing in 1995, where the importance of gender mainstreaming was raised (Huyer et al. 2020). However, while there is agreement on the general form, there is no one established practise and there is disagreement on precisely what feminist concepts are rendered relevant in GIA. For example, the need to integrate intersectional concerns and broader aspects of social justice has been advocated by some (Sauer and Stiess 2021). Others highlight the importance of a contextual understanding of how gender is expressed (Adusei-Asante and Pelden 2018). According to Verloo and Roggeband (1996), GIA should analyse inequalities in four domains: employment, private life, citizenship and knowledge. Tummers (2013) suggests that inequalities in these domains can boil down to inequalities in resources and in power. It thus seems possible to base GIA on the objectives for just adaptation from the previous section.

There are certain advantages of adopting a GIA approach in the assessment of adaptation planning. By analysing the impacts that an adaptation policy or plan has on gender equality and comparing it to a zero alternative, it is possible to identify unintended negative consequences, which can motivate an adjustment of the original plan or compensatory action. However, GIA in its standard

form has certain shortcomings. First, its focus is primarily on outcomes (impacts) of policy, and less so on processes. As I have argued earlier, it is important to not only consider distributive aspects of adaptation, but also the processes in which adaptation planning is formulated, and underlying structures and power relations that shape both outcomes and processes. Another shortcoming of traditional GIA is that it fails to recognise and address the uncertainties that are typical for (some forms of) adaptation planning. A review from 2015 found a very limited engagement with uncertainty in impact assessment theory and practice (Leung et al. 2015). This poses problems when applied to the context of adaptation planning; while some adaptation policy aims to address immediate threat, much adaptation policy needs to be implemented now to address a future, still very uncertain threat. In long-term adaptation planning, there is considerable uncertainty not only on the impacts of climate change, but also on various societal developments and how they will affect our adaptive capacity.

For this reason, I suggest a method that better addresses uncertainty in long-term adaptation planning. This method, which is called Value Sensitive Scenario Planning (VSSP) was developed and applied in close collaboration with local and regional planners as a tool for investigating the possibility to promote ethical values in the context of planning for long-term adaptation to sea level rise (Wedin and Wikman-Svahn 2021). In the original work, VSSP was used to identify a range of values important in adaptation planning. However, it was found that this wide approach made it difficult to fully engage with the many identified values and that the analysis risks becoming too shallow. The possibility of using the method to focus on a single value was raised, and this paper goes further in exploring the potential for the method to contribute to a more gender-sensitive adaptation.

VSSP builds on value sensitive design (VSD) and scenario planning. VSD is a method for integrating ethical values into the development and design of technological artefacts and systems (Friedman and Hendry 2019). Policy-making can be considered a form of design, and as such the method can be useful in the case of adaptation planning (Stone 2021). Besides elements from VSD, VSSP uses scenario planning, which is a common approach for dealing with planning for uncertainty. Scenario planning involves constructing possible future scenarios to aid decision-making (EEA 2009). Scenarios can be predictive, normative or explorative (Börjesson et al. 2006). In VSSP, scenarios are explorative, and by exploring how different futures may affect our ability to realise certain goals, it is possible to gain a better understanding of how we best can navigate the challenges the future holds (for further details on VSSP, see Wedin and Wikman-Svahn 2021).

In the context of assessing the potential gender impacts of adaptation planning, VSSP contributes with an additional layer to the analysis through

highlighting uncertainties in (especially long-term) adaptation planning. The impacts of adaptation have the potential to affect people over a very long time, and it is therefore important that longer time-horizons are addressed in a gender analysis of adaptation planning. Concretely, VSSP consists of formulating scenarios that represent possible futures which could influence the impact of adaptation and analyse different adaptation policies or measures in the respective scenarios. Scenarios are constructed by considering different factors of relevance for the analysis. It is possible to imagine that aspects of climate change, economic development, changes in governance, and social norms are all factors that could determine the impact on women from climate change and adaptation, and that scenarios should reflect differences in these domains. The scenarios are used as a framework for discussions on how different adaptation options could play out in different futures, and what the potential impacts on gender equality are. Here it is possible to frame the analysis so that it departs from the three objectives for a just adaptation planning listed above.

To exemplify, consider a case where a low-lying coastal municipality begins planning for future sea level rise. In the IPCC Sixth Assessment Report, it was stated that it cannot be excluded that sea levels will rise by up to 16 meters until year 2300 (Fox-Kemper et al. 2021). The mere possibility of this raises pressing questions for adaptation planners. Coastal communities will need to start considering approaches for dealing with significant sea level rise (of, if not 16, at least a few meters) soon. Different adaptation options include the relocation of whole communities, and the construction of sea walls to protect entire cities against sea level rise. If a municipality is considering whether they should start planning for managed retreat or large-scale protection measures, is important to understand how different groups can be affected by these measures. A part of this consists in understanding how external factors can shape the impacts of adaptation, not least on gender equality.

The formulation of scenarios is one way of visualising the context of these adaptive measures. It seems probable that adaptation measures will play out differently in a future where climate change has led to scarce resources, conflict, and declining democracy compared to a future where we have curbed climate change through technology and reformation of our institutions. VSSP offers a method for visualising and thus highlighting this. Importantly, VSSP is a participatory method, where stakeholders should be involved throughout the process. Stakeholders are part of formulating the scenarios and in the following discussions on how it is possible to promote gender-equality in long-term adaptation planning. By inviting relevant stakeholders, including women's groups and gender experts to discuss these issues throughout the adaptation planning process, it is possible to get a better understanding of the complex mechanisms that can affect how gender equality can be furthered through adaptation. A gender analysis in relation to different scenarios can

highlight different challenges that can arise in adaptation planning. Adaptation planning that does not account for uncertainty risks leading to maladaptation or different justice or gender impacts being ignored or missed out. The results from a VSSP analysis are speculative and do not give a direct answer as to which adaptation measure that is best, but rather help in identifying potential opportunities and risks that arise in the different combinations of scenarios and adaptation options. These insights should then inform and shape adaptation planning. Ideally, the VSSP process should be carried out iteratively throughout the adaptation planning process, so that gender concerns become an integral part of adaptation planning. The method can be integrated into an adaptation planning process, for example when a municipality or regional authority is developing their adaptation strategy. By letting the method suggest how different values may be realised or prevented in different futures, with different adaptation options, this can inform adaptation policy that better meets the challenges that an uncertain future will bring. A method that investigates values in relation to different futures, as VSSP does, can make us better equipped for this.

Can VSSP promote a gender-sensitive adaptation?

In the previous section, I discussed GIA and VSSP as possible approaches for furthering gender equality in long-term adaptation planning and suggested VSSP better informs adaptation planning which is surrounded by much uncertainty. In this section, I will elaborate on strengths and shortcomings of VSSP, departing from the three objectives for a gender-sensitive adaptation planning previously stated.

The first objective that gender-sensitive planning needs to fulfil is inclusive processes. Inclusive processes are both intrinsically and instrumentally valuable; women ought to be involved in adaptation planning processes as they have a right to influence their environment, and the inclusion of women and marginalised groups tend to lead to more just and efficient outcomes. VSSP is intended to be used in an integrated manner with a continuous engagement of relevant stakeholders. By opening up the process to e.g. representatives from women's group, members of civil society, and experts on gender issues, gender equality will be an integrated concern throughout the planning process. Admittedly, the planning process and the method is still run by planning authorities, such as a municipality. How well the method enables just processes therefore largely depends on whether the planning authority manages to get marginalised groups and women to participate. It is important that the threshold for participating is low, so that there are no informal barriers. This can be easier said than done, but if achieved, VSSP can provide a framework including stakeholder in (at least parts of) the adaptation planning process. If

implemented as intended, VSSP allows for an interactive and integrated discussion on how gender concerns are to be included in adaptation planning. As such, it offers an alternative to strictly top-down adaptation planning and opening up for inclusive processes.

The second objective that a gender-sensitive adaptation planning needs to consider is just outcomes. Women are frequently disadvantaged through adaptation as existing social structures are reinforced. As mentioned, a greater inclusion of diverse perspectives commonly leads to more just adaptation outcomes. VSSP offers a possibility to discuss how societal development, climate change, and adaptation can affect different groups, and can let the results of the discussion inform and shape adaptation planning. Given that the method is implemented successfully, it can thus be expected to lead to more holistic adaptation planning which considers marginalised groups, and thus increased distributive justice.

As mentioned, there is a rich discourse in the field of political theory on distributive justice, with several proposed principles of justice that could be used to motivate choices that arise in the adaptation planning process. I have chosen not to side with any specific normative principle, but promote a bottom-up perspective of justice, in which an adaptation policy can be seen as just when it does not lead to maladaptation, and when it decreases vulnerability of marginalised groups. The emphasis on vulnerability, adaptive capacity and resilience is in line with the capability approach that puts people's freedom to be and do what they want at the centre of distributive justice. In the VSD discourse, the capability approach has been increasingly discussed as a normative complement to the method (see e.g. Jacobs and Huldtgren 2018). It is possible that VSSP also would benefit from being formally anchored in a theory on distributive justice, such as the capability approach, in order to further just outcomes of adaptation planning. This could provide a clearer framework in which policies, and outcomes could be assessed and compared.

The third objective states that a gender-sensitive adaptation should enable transformative change. There is potential for some change as it offers alternatives to top-down adaptation planning and includes a wide variety of perspectives in the planning process. However, this change is not quite as transformative as is desired. VSSP typically is implemented in existing planning frameworks and it is arguably difficult to bring about transformative change from within. As such, it seems that VSSP does not necessarily enable transformative adaptation. However, by including more perspectives in adaptation planning, specifically on the role of gender and how gender equality is shaped by societal development, climate change, and adaptation, it is possible to identify limitations in the system. By investigating the social structures that make climate hazards into catastrophes for some, an arena for discussing transformational

change opens up. As such, the results from VSSP could be used to inform more transformative change.

In all, VSSP can be a promising method for promoting gender equality in and through adaptation to climate change. However, it must be said that participatory processes typically would require both time and financial resources (Byskov et al. 2021). Unfortunately, this is also the case for VSSP, and it is likely that most intended user do in fact lack the possibility to implement VSSP as intended for this reason. However, even if the method is not fully expanded but instead used in a limited form, e.g. in a workshop with a few invited participants, it is possible to gain valuable insights for how the gender equality should be can be protected or even furthered through adaptation planning.

Conclusion

While there is consensus on the need for gender to be considered in adaptation planning, little has been said about how this can be done in practise. In this paper, I have attempted to bridge the gap between theoretical work on just adaptation and on concrete methods for adaptation planning. Having identified that adaptation planning is inherently political, I pointed out that it is important that adaptation planning recognises and seeks to address social norms and structures that reproduce vulnerability of women in the face of climate change. To specify what this requires of adaptation, I suggested that a gender-sensitive adaptation planning needs to fulfil three objectives: inclusive processes, just outcomes, and transformational change.

An established approach for addressing gender equality in planning and policy-making is GIA. However, GIA is typically concerned with outcomes only and as such fails to further just processes and transformational change. I suggest that in order to address this shortcoming, a gendered analysis be used in combination with a method that better accounts for the great uncertainty that is typical for adaptation planning. The method VSSP was presented as an option for promoting gender equality in long-term adaptation planning characterised by great uncertainty. It was found that the method has potential in making the adaptation planning process more inclusive, as it provides a framework for involving stakeholders in an iterative and integrated manner. VSSP also has potential in furthering just outcomes, in part because inclusive processes typically lead to more just outcomes. It also broadens the discussion on what adaptation should aim to achieve, and as such has more potential in leading to adaptation policy that seeks to reduce vulnerability and increase adaptive capacity of women. The proposed approach does not necessarily enable transformational change. After all, it is developed to be applied within existing structures, and would need to be facilitated by local authorities. These are the very authorities that commonly reproduce vulnerability through adaptation. In that

sense, neither GIA nor VSSP can be said to fully promote a gender-sensitive adaptation planning. However, I am not certain that these methods obstruct it either. This analysis invites further discussions on methods for gender-sensitive adaptation planning. For future research, it would be valuable to apply the proposed methods to an actual case, to follow up on whether gender concerns become more central in adaptation planning. More work also needs to be done to see how GIA and VSSP can be used to promote justice issues more broadly. After all, gender and justice concerns must feature in adaptation planning in order to enable the climate-resilient, gender transformative development pathways that IPCC propose, and that the world needs.

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