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The contribution of gender justice to successful climate politics: impact assessment, interdependencies with other social categories, methodological issues and options for shaping climate policy

Summary of the 1. interim report (work package 1)

conducted by

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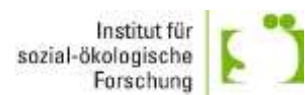
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Summary

Objectives of the study

The research project “Interdependent Gender aspects of climate policy. Gender justice as a contribution to an effective climate policy: Impacts analysis, interdependencies with other social categories, methodological aspects and options for policy design“ aims at

- ▶ Providing an overview on the research and findings on gender and climate change. This systematic literature review is the basis for further research work and is intended to underpin and promote this with recent findings from gender and climate research as well as the identification of potential entry points for the integration of gender dimensions into climate policy in Germany.
- ▶ Further developing Gender Impact Assessment (GIA) as a tool for climate policy and testing it with selected measures for appraisal and refining. The overarching question is to what extent the policies and measures contribute to a reduction of (gender) hierarchies, or whether they aggravate power relations, exclusion or demotion in the area of climate policy.
- ▶ By means of a systematic analysis of mechanisms taking effect on the climate change and gender nexus, responding to the question of whether, and to what extent, gender-responsive climate policy can raise the efficacy and thereby contribute to further reduce greenhouse gas emissions, reduce vulnerability, and enhance adaptive capacity, and, also to what extent an appropriate design of climate policies and measures can contribute to gender justice.
- ▶ Identifying data requirements and developing proposals on how to collect them, as well as how to attain continuity in data collection, and developing recommendations for policy and action.

In this work package, a comprehensive literature review has first been carried out, in order to show the current status of findings and available evidence on the gender aspects of climate change in industrialised countries. The review includes the main fields of action on mitigation of climate change and adaptation to its impacts. Based on the findings, potential obstacles to the integration of gender aspects into climate policies and measures as well as potential steps to overcome them were identified.

Furthermore, strategies to integrate gender in UN organisations and institutions relevant for climate change were investigated, as to which strategies have been chosen, and whether there is evidence on their efficacy.

Finally, an analytical framework was developed which is designed to identify the gender dimensions which are relevant for portfolios of mitigation and adaptation programmes. This analysis aims primarily at detecting priorities as well as gaps in the sense of untapped potentials for gender justice in these programmes. Initial findings indicate which gender dimensions become effective, but also show the limitations due to constraints in data availability.

The literature review

The literature research was confined to industrialised countries and limited to the period after the year 2010, except from some core references and references dealing with aspects that have not been dealt with later on. The research for peer reviewed articles was carried out through Web of Science, complemented by Google Scholar, WorldCat and Researchgate. In addition, national and European data bases were searched for research project reports. These searches were supplemented by selected references, which were already available in the literature database of the responsible consortium partner GenderCC. The research was carried out in January 2017.

Table 1: Search terms for the literature research in English language data bases¹

Structural categories	Terms
Climate	Climate* AND gender AND (mitigat* OR adapt* OR resilien* OR vulnerab* OR disaster OR techn* OR risk* OR ccs OR geo engin* OR urban OR rural OR settlement OR resident*)
Fields of action	Climate* AND gender AND (mobility OR transport OR water OR forest* OR land use OR agricult* OR nutrition OR food OR building OR household OR lifestyle* OR livelihood OR biodiv* OR health) Energy AND gender AND (efficien* OR sufficien* OR saving* OR nuclear OR fracking)
Approaches	Climate* AND (intersect* OR justice OR gender differen* OR masculin* OR human rights)
Instruments	Climate* AND gender AND (impact* OR assessment OR analysis OR strateg*)
Strategies	Climate* AND gender AND (practice* OR case OR resistance OR obstacle OR resist* OR barrier OR hindrance)
Gender	Gender OR sex OR women OR men OR female OR male

Altogether more than 1,100 articles and research reports were collected, which can be broken down into:

- ▶ 594 peer reviewed journal articles
- ▶ 122 research reports and doctoral theses
- ▶ 127 books and book chapters
- ▶ 147 brochures and international and EU documents
- ▶ 116 proceedings and work papers.

First, the references were screened based on a matrix asking for the thematic focus, research approaches and gender concepts, findings and indications on challenges and obstacles, and assessed for their relevance. Not included in the in-depth review were references that focused primarily or exclusively on developing countries, references that resulted from searching for 'gender', but did not address gender issues in their analysis, as well as those which proved to be irrelevant to climate policy. Some 50 per cent of the initial references remained to undergo the review.

The review is giving a picture of the current situation which can change rapidly, given the increasing attention for the topic, particularly by scholars.

Results of the Review

The increasing attention is reflected in the growing number of articles in specialist journals and also in the number of compendia that have appeared or are published. As opposed to the articles focusing on the situation in developing countries which are placing adaptation in the centre, the articles on industrialised countries tend to deal with mitigation. In addition to the criticism of conceptual frameworks, particularly of the 'difference approach' which is constitutive for most of the research, some authors criticise the fact that the pragmatic gender and climate change discourse still defines women as being more close to nature within preassigned roles and identities. They rather make an argument for plac-

¹ For the research in German data bases, the same search terms were used in German

ing the drivers of inequality more strongly in the centre (Weller et al 2016; Resurrección 2013; Alber & Hemmati 2011).

Nevertheless, the review shows that the diversity and breadth of research findings has substantially improved their connectivity to climate policy discourses, strategies, programmes, and the implementation of measures. Yet, their application is still not satisfactory, as demonstrated by the lack of good practices and as well as analyses of resistance and obstacles towards implementation.

Surveys about preferences and behaviour related to climate change

The results of **surveys** constitute a considerable share of articles, which in addition to the long-established gender differentials in preferences regarding climate policy, acceptability of approaches and solutions, and environmental behaviour, yield some new insights into the so called 'white male effect'². For instance, a Swedish study provides evidence that this effect is strongly linked to social justice: the more equitable a society is, the smaller the effect of the outliers regarding risk awareness of 'white' men (Olofsson & Rashid 2011). A further outcome is that the lower rate of women who deny climate change and their higher awareness of its risks goes is linked with less conservative attitudes (Jylhä u. a. 2016; Ojala 2015; McCright & Dunlap 2013), demonstrating that the 'white male effect' is primarily a 'conservative white male effect'. Other studies attribute this to the 'system justification' of men and the lesser 'social domination orientation' of women (Jylhä u. a. 2016; Milfont & Sibley 2016; Ojala 2015; Feygina u. a. 2010). 'System justification' conciliates concerns, anxiety and insecurity, in order to avoid questioning the status quo. Both concepts point to the fact, that the more the individual is embedded in a system, the stronger he or she seeks to maintain this system and accept its structures. Due to existing power relations, men benefit usually more than women from the given social order. This offers an explanation for their reduced willingness to face the problems of climate change, and their resistance towards changes that might result from the adaptation to the realities of climate change.

The results of surveys are often considered to be 'soft' data, as they are subject to large variations within and between countries, and are also heavily dependent on day-to-day politics. Yet, many gender differentials are stable even in the long run, for example in the case of the aforementioned perception and risk awareness of climate change which, in principle, can offer important insights into the relevant parameters to achieve the necessary changes for the transformation towards low-carbon societies.

It is striking that almost none of the mostly quantitative investigations and their analyses on attitudes and behaviour goes beyond gender differences. Thus, questions revolving around structural inequalities and power relations are not covered and remain largely unanswered. The results of these surveys form a situational impression of the attitudes, the acceptance or the behaviour in the context of the requested variables of certain population groups, but neither they provide any insights for possible changes, e.g. through 'doing gender', nor do they point towards a societal transformation. In the analysis of the survey results, it is frequently noted that more research should be carried out on the root causes of the gender differences. Authors also call for gender to be measured with variables other than the biological gender, and thus the binary distribution in male and female, in order to achieve adequate results to explain the differences in attitudes, acceptance or behaviour related to climate change mitigation and adaptation (Xiao & McCright 2012). However, no solutions were proposed for this.

² The 'White Male Effect' attributes the constantly lower risk awareness of men to the fact that a relatively small group of white well-educated men with high decision-making powers and high incomes has such an extremely low risk awareness, that it substantially lowers the average of all males.

Cross-sectoral insights into climate change mitigation and adaptation

Among the cross-sectoral research results, which deal with the reduction of greenhouse gas emissions from the gender perspective, there is an analysis of climate protection programmes (Rochette 2016), which criticizes the lack of implementation of gender mainstreaming in mitigation. An analysis framework for policy instruments that provide incentives to reduce emissions has been developed by Chalifour (Chalifour 2010). With its application to programmes to limit CO₂ emissions in two Canadian provinces, she can prove that these instruments can perpetuate systemic gender inequalities. She points out that for the development of fair mitigation policy instruments, not only the political will is required, but also the corresponding data.

Two very different approaches to the calculation of gender-differentiated carbon footprints are both worth discussing and also in need of further development. Griffin Cohen (Griffin Cohen 2014) bases her calculations on the sectors producing emissions (industrial production, transport). She shows that the more the workforce is male-dominated in these sectors, the higher the emissions. She concludes that the focus of policy on more efficient production in high-emitting areas will mainly secure male jobs. It is more important, she reasons, to rethink economics fundamentally in order to meet needs without environmental destruction. In her approach, due to the lack of disaggregated data, emissions generated by private households are attributed to women and men with equal shares. Druckman and colleagues (Druckman et al. 2012), on the other hand, allocate direct and indirect household emissions to activities that result from time-use studies and for which they calculate the CO₂eq intensity. Here, the carbon footprint of those responsible for the care work is higher. It is explicitly pointed out that this time-use is not related to sex, but rather to gender roles, tasks, and identities. This approach also makes clear the interactions between the time spent for work, leisure and care work, which are not only relevant in terms of income, but also in terms of emissions.

In the area of adaptation to climate change, various studies have criticized the fact that gender-specific vulnerabilities are often addressed, but rarely their societal causes, especially the underlying power relations. Comparing the Global South to the North, women in the South are primarily depicted as vulnerable, while women in the North are described as being more environmentally friendly and more concerned about climate change. Thereby, experiences and behaviour of women and men are oversimplified, ignoring differences within the groups of men and women, and reproducing the dichotomy between the Global North and the South (Nurse-Bray 2015, Arora-Jonsson 2011). Intersectional approaches in vulnerability and adaptation studies taking various social factors into account, as well as new approaches that combine human rights, human development and basic needs, could provide a remedy here (Bauriedl 2014, Tschakert et al., 2007, Tschakert & Machado 2012).

Findings in the fields of action of climate change policy

It is striking that gender research devotes different attention to the various fields of action for mitigation. This may be connected with the priorities of research policy, but is probably also depending on whether the gender perspectives are apparent and accessible to the scholars in their respective fields of action. For example, most of the publications with a gender perspective were found in the field of energy, while in the field of water, there are hardly any findings of gender research concerning the situation in industrialised countries. The issue of gender and migration and / or flight in combination with climate change is also considered related to the situation in the countries of origin (mostly in the Global South), not in relation to the situation in the target countries. The (positive, as well as negative) effects of migration on gender relations and the status of women are known from the countries of origin. Yet, how migration in the context of climate-related environmental changes impacts gender relations, in combination with the residence status of migrants or asylum seekers in the target countries, is not yet addressed.

Table 2: Number of publications by field of action

Fields of action	Number of publications
Energy	67
Transport/mobility	50
Resource use, consumption, food	36
Planning, building, housing	27
Water supply infrastructures and water management	7
Agriculture and forestry, biodiversity and nature conservation	23
Disaster risk reduction	31
Health	35
Economy and labour	22

(Counting based on the literature reviewed in the fields of action)

Energy is the field of action with the most publications on gender aspects. 10 years ago, the situation was quite different, and it can be assumed that the topic of energy has gained a lot of attention, also in gender research, against the background of climate protection and, above all, the energy transition. Gender-differentiated data on the perception and acceptance of the political implementation of the energy transition, as well as the knowledge about energy (vzbv 2013), points to the necessity of applying gender-sensitive approaches. However, this data on gender differentials should be supplemented by data which takes more into account the societal conditions and structural inequalities as well as the procedural 'doing gender' (Kanning et al., 2016). The increasing social risk of energy poverty, which has a clear gender component (Großmann 2017, Bleckmann et al., 2016), is associated with the energy transition.

The focus of the publications is in the area of private households and deals with gender-differentiated energy consumption (e.g. Kleinhüchelkotten et al. 2016, Rätty & Carlsson-Kanyama 2009a, Rätty & Carlsson-Kanyama 2009b), the causes of the differences (e.g. Elnakat & Gomez 2015) and the possibilities to reduce energy consumption (e.g. Kopsakangas-Savolainen & Juutinen 2013). In addition to income gaps, the traditional gender division of labour and responsibilities are identified as causes of the differences, and authors call for taking a closer look at intra-household dynamics in order to find out how the relevant decision-making processes are taking place. The area of energy consumption is particularly permeated by gender stereotypes. For example in marketing, and in manuals for technical devices, so-called 'gender scripts' become visible (Nentwich et al., 2010). As for 'Smart Home Technologies', gender differences result in the increased interest of men in these technologies (e.g. Strengers 2013), but it is also pointed out that because of the emphasis on technologies, certain aspects, such as effects on daily routines in the household, time use and flexibility are completely overlooked (Strengers 2015, Torriti et al. 2015). Especially in the field of heat consumption, a number of studies have indicated sex differentials in heat sensitivity and comfort temperature. These differences are mostly attributed to physiological differences (e.g. Hashiguchi et al. 2010), but some authors also refer to cultural and psychological factors (Karjalainen 2007). The differences lead to an increased heat demand of women in winter times, and to an increased cooling requirement of men in summer times (Schellen et al. 2012).

It was also examined how political interventions on energy efficiency in the household impact on the distribution of tasks, and who is burdened by additional work. Any change in behaviour inevitably affects the workload of the inhabitants. Depending on how the household tasks and other necessary work are assigned to, or distributed between the sexes, this additional labour can either be gender

neutral or disproportionately fall on women (Carlsson-Kanyama & Lindén 2007). The same applies to energy sufficiency, for which Spitzner and Buchmüller (2016) have elaborated, which framing, conceptualisation and methodologies are necessary in order to develop fair and equitable strategies and measures in terms of gender equality.

The employment of women and men in the energy sector (e.g. PwC 2014, Hausner 2012) and their share of decision-making positions (e.g. EIGE 2012) is relatively well under investigation. The investigations are generally complemented by recommendations for the implementation of equal opportunities in this economic sector.

On the other hand, **transport/mobility** is a topic that gender research has long dealt with. Critical approaches, especially those critical of androcentrism (Spitzner 2004), were hardly carried forward in the 2010s, among others due to a lack of funding. Instead, the research on gender aspects has become more diversified, with some very detailed analyses on specific aspects on the micro level. These studies consider the demand side of the users, rather than the supply side, while the provision of corresponding (infra)structures is rather seldom addressed. Exceptions are some studies around masculinity research in Scandinavia, which address the links between masculinity, norms and mobility and, in the light of many years of experience in this area, also identify obstacles to the implementation of these links in research and policy (e.g. Kronsell et al 2016).

The significantly higher carbon footprint of men demonstrably results from their mobility behaviour, which is reflected in larger cars, more frequent use and longer trips (Brand et al. 2013). Moreover, women and men tend to have different purposes of trips and trip chains. Complex trip chains are often caused by care and accompanying traffic (e.g. CIVITAS 2014, Sicks 2011). Air pollution caused by traffic and the linkages to environmental justice are the focus of studies from Canada, Germany and Great Britain. These show that men not only generate more emissions than women but also that those who live in places with the least amount of air pollution emit the most, and vice versa, those who live in areas with the highest levels of pollution emit the least (Shekarrizfard et al. 2012). Some authors criticise the lack of consideration of findings of mobility research that deliberates on gender, as well as the way data are collected, with unconsciously inscribed gender constructions or attributions of traditional roles (VCÖ 2009, Ahrend & Herget 2013).

However, long-term examination of gender-specific mobility behaviour shows that the distances travelled by women are slowly beginning to approximate those of men, which can be explained by longer distances travelled by middle-aged women and significantly lower distances travelled by young men (Frändberg & Vilhelmson 2011, Scheiner et al. 2011). Research results also show that the impact of gender roles on mobility is dependent on social-spatial structures, in particular the labour market, the housing market and existing transport systems, and that these structures can, vice versa, restrict or broaden the scope for intra-household negotiation and the resulting 'doing gender' (e.g. Sola 2016).

Furthermore, gender-differentiated data are available for car use in general, e-mobility, the use of bicycles and the basic mobility requirements defined by gender roles in certain phases of life and age (Scheiner 2014).

Many of the conceptual approaches and data in the fields of **resource use, consumption, and food** are based on gender differences, while conflicts of requirements in terms of resource use and consumption are rarely brought up, e.g. between growth and life styles geared towards sufficiency, between acceleration and deceleration, or between participation and state responsibility. Each of these pathways has a high impact on gender roles and responsibilities, and gender attributions (Schäfer 2013). Critical transformative approaches are pursued even more rarely. Nevertheless, the "Trend Report for a Foresighted Resource Policy" (Langsdorf & Hirschnitz-Garbers 2014) refers to the compensatory consumption due to the congestions of the daily work routine and expresses the hope that women as self-contained consumers could contribute to a 'female shift'. Other authors (e.g. Weller

2013, Schultz & Stuess 2009) point to the limits of consumers' consumption preferences and the individual and structural framework conditions as basic prerequisites for sustainable, low-carbon consumption.

A relatively large number of gender-disaggregated data (e.g. Kleinhüchelkotten et al. 2016, Kammerlander 2014) is available for the area of consumption, which is particularly true for food consumption. Meat consumption, with its particular importance for greenhouse gas emissions and thus for climate change, shows significant gender differences in almost all regions of the world. The high meat consumption of men is often associated with masculinity concepts (eg, Cordt et al. 2014, Rothgerber 2013).

Planning, building and housing are areas that have long been analysed from a women's or gender perspectives and for which methods and tools for gender mainstreaming or consideration of women's issues have been developed (see the literature review by Spitzner & Färber 2002). Even though most of the papers reviewed under this topic do not directly address climate change or climate policy, they consider sustainability aspects and thus play a significant role for climate policy. Feminist and gender-sensitive examinations of spatial development as well as spatial and urban planning show the different interactions between power and space (Bauriedl 2013). Gender aspects must be included in spatial and city planning on the structural level, the process level as well as the content level. The integration of the gender perspective involves a systematic analysis and consideration of gender relations in the sense of gender mainstreaming, and, moreover, spatial development itself should contribute to improving gender equality (Stiewe 2015). Papers from Sweden have developed a framework to analysis whether and how a gender perspective can be included in environmental and spatial planning and to reveal the connections between gender differentials and male or female connoted gender roles (Dymén & Langlais 2017).

Investigations in the area of building refurbishment and energy management in buildings establish a direct nexus to climate change in general and energy as a field of action. Among others, user behaviour and their everyday needs are analysed (e.g. Suschek-Berger et al. 2014), and 'doing gender' is discussed related to processes to provide advice on energetic refurbishment (e.g. Tjørring 2016).

Unlike the other fields of action, the literature in the field of **agriculture / forestry and nature conservation** is characterised by feminist approaches and approaches critical of capitalism. Authors associate the responses of women and men taking place at the individual (micro) level as well as the impacts of climate change and neoliberal politics on the management of these areas with the political and economic macro and meso levels. They criticise the hegemonic, gender-coded nature relations, the segregation of the productive and reproductive spheres, which hampers the sustainable use of nature and forests, and thus the dichotomy between conservation and utilisation (e.g. Katz & Mölders 2013). In addition, researchers plead for abandoning the difference approach dominating the topic of gender, climate change and agriculture and putting a stronger emphasis on intersectional aspects (e.g. Thompson-Hall 2016).

A number of studies, particularly from Australia, are investigating whether climate change offers an opportunity for changes of the very traditional gender relations in agriculture (e.g. Alston & Whittenbury 2013). They point out that 'doing gender' is changing due to the challenges of climate change.

In the area of forestry, the poor data situation is deplored, made apparent by the fact that female forest owners are a hitherto neglected target group in the forestry sector (Schlecht & Westermayer 2010). There is evidence available on the different preferences of female and male forest owners on how to manage their forests (Follo et al., 2016). Moreover, there are indications, that the climate change debate has shifted both topics, gender and climate change, from the political to the economic sphere, which is why women no longer appear as active citizens who are involved in forest policy, but only as forest owners or employees of the forestry industry (Holmgren & Arora-Jonsson 2015).

The topic of biodiversity is treated from a more theoretical perspective. Some authors show how dualistic and hierarchical constructions of human-nature relations are reflected and reinforced in these theoretical conceptions (Kaijser & Kronsell 2016).

The different phases of **disaster risk reduction**, namely prevention, acute situation, clean-up and after-care, are among the topics which have been examined for a long time from a gender perspective, albeit with a clear focus on the situation in developing countries. In industrialized countries alike, the gender-specific division of labour is particularly evident in the response to disasters. During and after disaster situations and due to the failure of the infrastructures women who are already under a double burden are strained with additional care work (Dominelli 2013). Furthermore, disaster is one of the few areas in the wider field of environmental policy and climate change which is examined in its various facets from a masculinity perspective (see Enarson & Pease 2016). Critical research on masculinity and disasters deals with the responses to losses and destruction, the impacts on, and responses of men on the aftermath, as well as approaches to the transformation of masculinity in disaster management.

The focus of the investigated disasters is closely linked to the geographical and regional situations. For example, disaster research related to gender and climate change focuses on the impact of hurricanes in the US, in particular hurricane Katrina, which has been examined from a gender perspective in a wide variety of aspects (see the comprehensive collection of articles and reports by David & Enarson 2012). In Australia, the focus is on drought disasters and their impacts on agriculture (Alston 2012, Whittenbury 2013). It is striking that, based on data on the high suicide rates of men during and after droughts and based on critical masculinity research, the effects of climate catastrophes on gender relations are analysed to be comparatively well-founded. In Germany, gender-reflecting disaster research is only in its early stages and is primarily concerned with the effects of flooding (Chavez-Rodriguez 2013).

Many authors refer to the clear evidence on increasing gender-based violence after every kind of natural disaster (see, for example, the literature review of Rezaeian 2013).

There is, of course, a close overlap between research on **health and climate change** with disaster research. In contrast to the latter, however, the consideration of gender aspects is rarely found in climate and health research (Preet et al., 2010). Authors criticise the lack of interdisciplinarity (Kukarenko 2011) and the fact that gender is often treated as an "add-on" to enrich studies, yet without seriously dealing with gender aspects. This becomes evident in the most frequently investigated area of heat-wave-induced mortality of women and men. For this, data from different regions are available, e.g. from Europe, the USA, or Australia (e.g. D'Ippoliti et al. 2010). However, most papers cannot explain the causes of the higher mortality rates of women, except by referring to the higher life expectancy of women.

The high suicide rate of men after drought disasters in Australia has already been mentioned. To understand this, a stronger focus should be put on the cultural context, gender inequalities, and the dominant form of masculine hegemony (Alston, 2012).

There are also overlaps between climate change, health and the building and housing sector, in particular regarding the energetic housing situation. In contrast to research on heat waves, the internal temperature is taken as the basis for evaluation. Research results indicate that the thermal quality of building must be viewed as a part of overall health care when it comes to health care regulations, and that women are particularly vulnerable due to their socio-economic situation (Miller et al. 2017).

Gender-reflecting papers in the area of **climate change, economy, and labour** are largely based on feminist research approaches and specifically on feminist critical economics. In comparison to publications in other fields of action, they are more likely to be geared towards transformative change. The concept of the 'green economy' as a response to the various global crises, including climate change, is used to tie in with the gender perspective in most of the reviewed papers.

In contrast to the common limitation of considerations to 'green' economic sectors, in gender research, the concept is understood to be much broader in the sense of a sustainable, socially fair economy. The authors place the focus on the link between care, gender and sustainable economic activity, in addition to examining the share of women in these areas, the focus is (see, among others, Gottschlich et al. 2014).

Evaluation by country

The review has been limited to English publications and those from the German-speaking countries. As a result, there is a preponderance of papers from Germany in some areas, especially when it comes to quantitative data. It can be assumed that, for example, studies on the nutritional behaviour in Spain or attitudes concerning climate policy in France are available in the respective languages, but these could not be included here. Despite these limitations, there are some striking trends: more than a third of the surveys and analyses of attitudes of the population come from the US. Likewise, in the field of disaster risk reduction, the USA has the highest number of publications, but this is clearly due to Hurricane Katrina, which is very well examined from a gender perspective. Apart from that, Australian papers are outstanding in establishing the link between masculinity and disasters as well as the consequences on human health. Germany is leading in gender research on energy (followed by the USA). In the transport sector, most of the publications deal with the situation in Germany, as well, with a relatively even distribution between countries. The papers on adaptation are primarily concerned with general gender impacts, and to a lesser degree with country-specific situations. Finally, it should be pointed out, that Canada stands out in the area of climate protection, with several new approaches to calculating gender-differentiated carbon footprints and analytical tools.

Evaluation according to methodological approaches and gender dimensions

The number of contributions that explicitly deal with research approaches that are considered useful for the topic of gender and climate change has risen significantly in recent years. However, these approaches have so far been rarely applied, remaining at a primarily descriptive level. By far the largest part of the reviewed contributions worked with difference approaches, mostly without labelling them in such a way. That is, the gender differences were considered relevant and placed at the centre of the analyses and resulting recommendations. Yet, the critique on difference approach includes that the focus on gender-specific differences in the planning and design of policies and measures contribute to a consolidation of traditional gender roles and can thus reproduce structural symbolic hierarchies. Working with difference approaches often implies that women should be regarded as deficient and should adapt to the given circumstances. Transformative objectives which address the underlying causes of inequalities would then be no longer necessary. Critical approaches towards androcentrism (Spitzner in Röhr et al., 2008), in contrast, go much further, analysing the causes of the problems of injustice based on the social fixation on the man or the 'male' as the norm in which the woman is perceived as a deviation from this norm.

The frequently collected statistical and empirical data of research on gender and climate change are largely limited to the determination of gender differences. They thus offer little explanation for the causes of these differences as well as societal gender problems. At best, reference is made to gender roles or to the fact that further research is needed here. Occasionally, there are indications that it is not sufficient to go further into searching for gender differentials, or that intersectional approaches could further the issue. Some authors state that it is also necessary define the category sex / gender different from surveys based on the male-female dichotomy or gender-disaggregated data. Unfortunately, there is a lack of indications of what categories that could be. Rarely, critical-transformative perspectives, which would necessitate fundamental structural changes, appear in recent gender-reflecting research on climate change mitigation and adaptation.

It seems that the research focus, or at least the focus of academic literature and scientific discourse, has tended to narrow in the last 10 years, has lost political momentum, has moved to the micro level, has hardly examined structures and dynamics, and has not pursued certain scientific discourses any longer. The underlying reasons of this, e.g. if this is due to the focus of research funding or the constitution and organisation of research, cannot be decided here.

While it is not a new finding that gender relations are context-specific, it still needs to be emphasised, in particular given the frequently mentioned 'contradictory' insights from surveys, which are therefore considered to be rewarding. Nobody can seriously expect the gender differences in Japan to be the same as in Germany, or that of a rural region in Bavaria comparable to those in Berlin. Here, an in-depth debate on the causes of the gender differences, as well as their appraisal, would help (see, for example, Verloo & Lombardo 2007). Intersectional approaches can be used to show how different groups and individuals respond differently to climate change, depending on their position in power structures, and how climate policies can aggravate inequalities along the categories of gender, class and race, but can also have a positive effect.

Strategies, Resistance, Obstacles

Strategies for the integration of gender perspectives in climate policy are rare. It is more common to find criticism of the implementation of strategies, especially gender mainstreaming. Lack of monitoring and reporting contribute to the fact that experiences from the processes for the implementation of gender strategies cannot be shared and applied elsewhere. Better indicators able to capture the interrelationship between gender and climate / environment, as well as reliable data on the efficiency of policies and measures (e.g. Castaneda and others 2013) are also called for, see in detail the analysis of climate policy decisions and their implications for national policy in this summary and in the full report (Chapter 3).

The obstacles and resistances identified in the reviewed literature can be summarised as follows:

- ▶ Dilution and trivialisation of gender knowledge;
- ▶ Masculine norms and normative interpretation of the gender order, which tend to reproduce themselves if unchallenged;
- ▶ Political failure in the implementation of the promotion of gender equality in many policy fields, undermining of gender action plans by the bureaucracy and through mere technocratic implementation, and limitation of gender analyses to checking boxes;
- ▶ Instrumental deformation of gender mainstreaming, which has lost its 'original' critical feminist goal. At the same time, the inflation of the concept of 'mainstreaming' massively increases the list of themes that require mainstreaming, resulting in growing complexity and reduced willingness of implementation;
- ▶ Poor availability of data that go beyond gender differences and allow conclusions on gender and changing gender relations. Researchers who have a different approach are also compelled to rely on differences whenever they want to quantify their statements³
- ▶ Binary gender disaggregated data can also have a contrary effect if they are, for example, contradictory in transnational studies. As a result, gender is considered an ambivalent category, which is to be ignored because of inconsistency.

³ Binary categorisations in the area of gender are problematic because they freeze the status quo and ignore changing gender identities and roles. Such data tend to lead to developing strategies to reduce discrimination and to integrate the disadvantaged part of the population into the 'mainstream' of the more privileged.

- ▶ The language of gender research, which poses a challenge even for a benevolent practice-oriented audience.

Perhaps the biggest gap in the literature review came up when it comes to identifying best practice or good examples. These are entirely absent. Whether this is due to the fact that gender has not been taken into account in climate policy in industrialised countries so far, or that there are simply no good examples, or that the implementation has not been investigated in terms of its outcomes, remains to be seen. The legal integration and resulting application of the Gender Impact Assessment in Korea provides a ray of hope. Yet, there is still no analysis available of the impacts after the requirements were improved. The final report of the UBA internal project "Gender Relations and Sustainability" (Röhr 2017; Sauer 2014) provides an in-depth insight into the integration of 'gender' into the specialist work of an environmental institution, and the success factors for its anchoring. Even if the project was completed 13 years ago, the experience gained with the report is still relevant.

Analysis of decisions in international climate policy and their implications for national policy

The relevance of the growing number of gender references in UN-level climate agreements for the national policies of the State Parties to the conventions and what mandates can be derived from them, has been examined in another part of the work package. To this end, the relevant documents of the three Rio Conventions (UN Framework Convention on Climate Change UNFCCC, Biodiversity Convention CBD and UN Convention to Combat Desertification UNCCD) were analysed for their gender references. Only those references were considered, which can be considered as mandates for the Parties and are relevant to the policies of industrialised countries.

Only the conventions and their protocols are legally binding, since they are subject to a ratification procedure. Resolutions of the Conferences of the Parties to the Conventions and of other UN Conferences as well as guidelines of international organisations are not legally binding, but they are considered as 'soft law' and can, depending on the exact wording, have a normative effect and play a guiding role.

In contrast to the other Rio conventions, the UNFCCC of 1992 and the Kyoto Protocol of 1997 do not contain any references to gender or women. Almost 25 years later, the preamble of the Paris Agreement calls upon Parties to respect, promote and consider, among others, human rights, gender equality, and empowerment of women when taking action to address climate change. It had been a long way since, in 2001, the gender issue was taken up in the UNFCCC process and increasingly anchored in several work processes thereafter.

Decisions and programmes on gender in the UNFCCC process

Unlike in the other Rio Conventions, in the UNFCCC process specific decisions on gender were adopted in order to close the gender gap⁴. They include decisions on gender parity in UNFCCC committees (UNFCCC 2001), delegations, negotiating groups and consultation mechanisms, as well as gender and climate agendas on the COP agenda (UNFCCC 2012).

Moreover, a number of substantive gender references have been incorporated into the decisions and work programs over the years: adaptation programmes should be based on a gender-sensitive and participatory approach, gender aspects should be taken into account in all activities in capacity building, and in the activities under of Article 6 of the Convention (education, training, awareness-raising,

⁴ Gender at the UNFCCC web site: https://unfccc.int/gender_and_climate_change/items/7516.php

participation, access to information) gender should be taken into account as a cross-cutting issue. Furthermore, reporting should include progress on gender parity and gender-responsive climate policy.

In 2014, the 'Lima Work Programme on Gender (LWPG)' (UNFCCC 2014) was adopted as a two-year work programme on gender mainstreaming in all relevant activities under the Convention, in order to promote the implementation of the previous decisions. In addition to thematic workshops, training and capacity building, a gender focal point was set up in the UNFCCC Secretariat to develop an action plan for the programme, among others. Parties are invited to support the training and awareness-raising of their delegates on gender, build the capacity of their female delegates on negotiating skills, and promote such activities in vulnerable countries, as well as the activities of the Secretariat under the programme. Two years later, a three-year extension and expansion of the LWPG (UNFCCC 2016) was adopted with a planned review in 2019. Additional elements are several workshops and activities to clarify how gender can be integrated into the UNFCCC work streams. The Parties are asked to appoint and provide support for a national gender focal point for the negotiations as well implementation and monitoring, to report on the integration of gender issues into climate policy and to share these experiences, including with non-governmental organisations.

An essential element is the development of a gender action plan by the Subsidiary Body for Implementation (SBI), which is to support the implementation of the decisions and mandates on gender. It should include priority areas of action, central activities and indicators, implementation timelines, responsibilities and estimated budgetary expenditures, and further develop review and monitoring.

The proposed elements of the plan have been summarised in five clusters: capacity building, exchange of knowledge and communication; gender parity, participation and women in leadership roles; consistency within the UNFCCC and other UN organisations; gender-responsive implementation and implementation tools; monitoring and reporting. It will be decided at one of the next SBI meetings (as of July 2017).

Gender in der Convention on Biological Diversity (CBD)⁵

Biodiversity is relevant for climate change as well as for adaptation, through the conservation and restoration of ecosystems, through climate-friendly and resilient agricultural and forestry practices, etc.

In contrast to the UNFCCC, gender was anchored right from the start, but only in the preamble and only from the point of view of women's participation. Since 2008, a more comprehensive approach to gender has been pursued⁶. Gender is now one of the 20 cross-cutting themes, but with only weak links to the cross-cutting issue of climate change and biodiversity. In the Conferences of the Parties, numerous decisions were made referring to women's rights and, later on, to gender, including gender mainstreaming in the implementation of all activities under the Convention.

Since 2008, Gender Action Plans (GAPs) have been adopted and revised several times. Initially they involved only mandates addressing the Secretariat, but later also mandates to governments. The strategic objectives of the current gender action plan include the mainstreaming of a gender perspective in the implementation of the Convention and the promotion of gender equality in the pursuit of the objectives and strategic plans of the Convention. In addition, it should be demonstrated that gender mainstreaming contributes to making the work under the Convention more effective and to better achieving the aims of the Convention. Specifically, gender is to be taken into account in the national biodiversity plans (NBSAP) and integrated into indicator development and monitoring.

⁵ Homepage of the CBD: <https://www.cbd.int/>

⁶ See also <https://www.cbd.int/gender/>

However, several evaluations have shown that the implementation of gender mainstreaming at national level is still insufficient. Many of the national biodiversity plans do not even contain the word gender, and only a few countries have developed indicators for monitoring.

Gender in the United National Convention to Combat Desertification (UNCCD)⁷

The connection between combating desertification and climate policy is, above all, in the area of adaptation to the consequences of climate change, which increases the risk of desertification. However, combating desertification can also contribute to climate change mitigation by conserving ecosystems. Germany is not part of the regions mentioned in terms of regional implementation in the Annex to the Convention, and therefore deals with it in the context of development policy.

The initial UNCCD document included a reference to women, since this process has put a strong emphasis on the participation of the affected population from the outset. Although the issue of women was more strongly anchored than in the CBD, less substantial COP decisions were made with reference to women or gender. Most refer to gender parity in the 'Roster of independent experts', which was obviously difficult to achieve.

The 2007 strategic plan to implement the Convention as well as several other references call for the inclusion of women at the local level. The Gender Action Plan of the UNCCD has been a draft since 2011 (UNCCD 2011) and is part of a series of UNCCD Advocacy Policy Frameworks (APF). It specifies only tasks for the Secretariat and does not contain any mandates for the states that are Parties to the Convention. Instead, the UNCCD has published several information and recommendation documents on gender⁸. There are no gender references in the thematic UNCCD documents on climate change.

Further international agreements

In the preamble and the resolution text of the 2030 Agenda for Sustainable Development (**Sustainable Development Goals - SDGs**), the role of gender equality is emphasized in a number of references. It is stated that this applies to all objectives, even if gender is not mentioned explicitly in the target 13, which deals with climate, apart from the mention of women among a long list of vulnerable groups. SDG 10 on the reduction of inequalities within and between countries also deserves attention, as it is about social, economic and political inclusion of all social categories, including gender.

The **Sendai Framework for Disaster Risk Reduction**⁹ was adopted at the 3rd UN Conference on Disaster Reduction in 2015. It is intended to set a framework for the reduction of disaster risk with a time horizon of 2030. The relatively far-reaching and concrete gender references are not legally binding, but are based on a decision of a UN conference and can thus also be understood as mandates. A gender perspective is to be integrated into all policies and measures in disaster prevention. Women and young people should be encouraged to take a leadership role to ensure gender equality in all approaches and aspects of disaster preparedness and post-disaster management. Capacity development and participation of women in the development of early warning systems and in all plans and policies for the management of disasters should also be secured.

In the process of the **Convention on the Elimination of All Forms of Discrimination against Women** (CEDAW)¹⁰, which was adopted by the UN General Assembly in 1979 and ratified by 189 states, several decisions on gender and climate were adopted, usually by the CEDAW Committee, which provides recommendations on the implementation of the Convention. Most of the decisions concern the

⁷ Homepage of the UNCCD: <http://www2.unccd.int/>; official documents can be found here: <http://www.unccd.int/en/about-the-convention/official-documents/Pages/default.aspx>

⁸ See <http://www2.unccd.int/issues/gender>

⁹ See <http://www.unisdr.org/we/coordinate/sendai-framework>

¹⁰ Homepage: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CEDAW.aspx>

vulnerability of women and their specific needs with regard to disaster risk reduction and adaptation policies, some of them with a very concrete definition of the problems.

The **New Urban Agenda (NUA)**¹¹ was adopted by governments at the Habitat III Conference in Quito in 2016 and contains commitments for governments. To meet these obligations, governments need to adopt policies targeting municipalities, such as improving the legal and financial framework for local action or through recommendations or funding programmes. There are many gender references in the NUA, for example, in the areas of disaster risk management, adaptation to climate change and climate protection. Gender-responsive urban and spatial development and planning processes are called for, and gender equality is spelled out concretely especially in the fields of mobility and housing policy.

Strategies for the integration and anchoring of gender issues

In a further step of work package 1, we examined the strategies for the integration of gender in climate-relevant UN organisations and institutions and the extent to which their effectiveness can be evaluated.

Gender Action Plans (GAPs) are obviously the central instrument for the embedding of gender, since all the conventions and institutions considered have a GAP, which is, however, often addressed to the institutions and their programmes themselves, rather than the governments who are Parties to the conventions. For complex processes, such as the UNFCCC process, it appears to be very useful to draw up a document in which at least all existing gender mandates are compiled and operationalised, in particular if the mandates are not just mentioned, but, moreover, responsibilities, time horizons, indicators and procedures for monitoring are defined. This has often been neglected in GAPs, and evaluations of several of the GAPs considered here have produced unsatisfactory results which led to a revision of the plan. Above all, if there is a lack of qualified personnel and budgetary resources, as well as a solid foundation at the top of the institution, GAPs remain largely ineffective.

In an initiative of the International Union for the Conservation of Nature (IUCN), national action plans on gender and climate (ccGAPs) have been developed in recent years for some developing countries. The process includes an inventory, training, identification of women's priorities, multi-stakeholder processes to develop action proposals in priority sectors, elaboration of an action plan and coordination with relevant government agencies, monitoring and reporting.

While the action plans can hardly be transferred to industrialised countries because of different priorities for mitigation and adaptation, the challenges observed are relevant for all countries: firstly the cross-sectional nature of both tasks, gender and climate policy, secondly the necessary capacity building in climate change among women's organisations and gender experts on the one hand, and on gender among the experts in charge of climate policy on the other, and thirdly the role of such gender action plans, which can be decisive when a window of opportunity opens up, for example, a concrete action programme is planned.

Assessment of portfolios based on gender dimensions

This part of the study seeks to resolve on the question as to whether and how a portfolio of climate change mitigation and adaptation policies can be evaluated and possibly optimised from a gender perspective.

Up to now, mostly portfolios of greenhouse gas (GHG) technologies have been assessed, primarily in terms of their cost-benefit ratio. The IPCC in its 5th Assessment Report (Intergovernmental Panel on Climate Change 2014) analysed also portfolios of policies, for instance in connection with uncertain-

¹¹ The text is available in several languages at <http://habitat3.org/the-new-urban-agenda>

ties and risks or in terms of cost-benefit assessments. At the same time, the limits of purely economic cost-benefit analyses are discussed (Intergovernmental Panel on Climate Change 2014: 244), but primarily with regard to ethical considerations on international justice. Gender equality is not addressed by the IPCC in this context, but has some parallels with international justice, in that it is not only about economic assessments, but also about power relations, as well as structurally and culturally determined, deep-rooted inequalities. Moreover, gender inequality is also related to care work whose monetarisation is controversial¹².

In this respect, the question of the assessment of comprehensive climate action programmes from gender perspective is new. While the Gender Impact Assessment (GIA) focuses on individual measures or (narrower) programmes, the entire portfolio of policies is to be assessed here.

In the following, an experimental approach for an analytical framework is presented, which can be used to show which gender dimensions are relevant for the portfolios of existing climate protection and climate adaptation programmes and should be taken into account when designing the measures. Moreover, the analysis shows which strategies and fields of action have a high potential for contributions to gender equality and therefore should have high priority from a gender perspective.

For this purpose, a comprehensive portfolio of mitigation and adaptation strategies and policies was developed in a bottom-up approach. It is structured according to the policy areas planning, building, housing; mobility and transport; energy demand and supply; biodiversity, agriculture and forestry; water management; coastal protection; tourism; production; consumption; waste management; disaster prevention, and health. As much as possible, the structure was set in accordance with existing mitigation and adaptation programmes. In each policy area, all known strategies and policies have been listed. Some of these policies are not directly implementable at the national level in a multilevel system, since certain responsibilities are located at local or regional levels. Nonetheless, national climate policy is also responsible for tapping the policy potential that is not directly accessible, especially if these policies are environmentally friendly and low-risk, with considerable positive side effects on social and gender equality¹³.

Policy areas such as research, development cooperation, or the role of the federal government in political processes at EU or UNFCCC levels have not been included in the portfolio, because they do not directly lead to emissions reductions or adaptation to climate change, but have rather have indirect effects.

This portfolio was the starting point for assessing the potential of the various policy approaches in terms of their contributions to gender equality. The concrete design of the policies in the sense of specific interventions and policy instruments has not been taken into consideration, as this is the task of a GIA.

Gender dimensions

The criteria for the evaluation were based on the gender aspects and dimensions that have been used by the partners of the consortium (Alber & Röhr 2011, Röhr et al. 2004, Spitzner et al. 2007, Turner et al. 2006). For this purpose, in a first step, a synopsis of the hitherto used dimensions was developed¹⁴. The various dimensions were then revised in order to obtain a set of dimensions as consistent as possible:

¹² See e.g. (Gottschlich u. a. 2014) on the discussion of approaches to monetise care work

¹³ See also further above the deliberations on the ‚New Urban Agenda‘ (in detail in Chapter 3 of the full report), in which governments have entered into commitments concerning cities and settlements.

¹⁴ The dimensions are based on the aspects that contribute substantially to inequalities and where the most important gender inequalities become apparent.

1. Care economy (gender-specific responsibilities and attributions for housework, care work and household decisions, cost-benefit distribution of care, logic and criteria for the care economy);
2. Employment/market economy (gender-specific distribution of paid and unpaid labour, gender income gap and poverty risk, assets and financial resources);
3. Provision, orientation, access, usability of public resources / infrastructure (distribution of public space, public resources, quantity and quality of service infrastructures, access to resources);
4. Structural aspects: Symbolic order (dominant social gender constructions and identities including attitudes, perceptions, risk assessments, attributions, problem perception);
5. Structural aspects: Institutionalised androcentrism (institutional rationalities determining the perception of problems, processes, organisation and outcome, masculinity models as the norm, conceptualization, methods, knowledge production);
6. Definition and decision-making power at the level of actors (procedures, decisions, power relations and governance structures, participation, empowerment, choice of instruments);
7. Body, health, intimacy (physical differences between the sexes and age groups, sexual harassment, reproductive health, gender-specific responsibilities for health, perception of physical risks).

This set of gender dimensions should be regarded as provisional and might be modified in the further course of the project after its applicability for the further development of the Gender Impact Assessment in AP2 has been examined.

The assessment of the catalogue of policies was fed from the literature review and from own plausibility considerations. However, only limited indications for the assessment can be found in the literature. One of the reasons for this is that, above all, the empirical findings so far generally do not address the climate strategies and policies. A further constraint is that some of the gender dimensions are hardly or not at all addressed in the literature, which is especially true for Dimension 5. Moreover, the literature research revealed only a few current studies for some fields of action, for example in the areas of water or waste management.

Indirect effects were not included in the assessment, in particular international effects, for example on food security. We consider these effects to be tremendously important, but have not taken them into account since they require studies in detail.

Results of the portfolio assessment

The assessment is still a relatively crude estimation, which serves a first step to prioritise strategies and policies from a gender perspective.

It became clear that the focus of gender effect of mitigation lies in the areas of planning, building and housing as well as transport, especially with the rather long-term planning as well as short-term organisational measures for traffic avoidance and the expansion of infrastructure and services in public transport, accompanied by policies to reduce motorised individual traffic. In the energy sector, household energy is primarily relevant from a gender perspective, since only direct effects have been considered.

In the area of adaptation, in addition to the climate-proof development of settlements, especially the areas of disaster risk reduction and health are of paramount importance from a gender perspective.

Figure 1: Portfolio Assessment (extract)

Sectors	Strategies	Policies	Potential for contributions to gender equality in the various gender dimensions						
			Care economy	Employment / market economy	Public resources / infrastructures	Structural aspects: Symbolic order	Structural aspects: androcentrism	decision-making power at actors' level	Body, health, intimacy
Planning, building, housing									
Reduction of transport demand									
		Compact settlements	++		+			+	+
		Mixed use development incl. accessible service infrastructures	++	+	+				+
		Development along existing public transport routes		+	+				
		Polycentric structure of settlements	+	+	+				
		Aufteilung öffentlicher Raum auf verschiedene Verkehrsträger	+		++				+
Minimising energy demand of buildings									
		Energetic refurbishment of existing buildings	+						+
		High performance new buildings	+						+
Securing sites for renewables									
		Solar oriented development of settlements							
		Securing sites for renewables in spatial planning							
Developing climate-proof settlements									
		Avoiding flood-prone sites	+						+
		Securing and enhancing air flow corridors							+

These results are not surprising; one could have come to similar conclusions with a theory-driven approach or common sense. However, it appears desirable for us to use an analytic framework to assess action programmes and conclude recommendations on a revised focus or inclusion of certain policies, not least in order to raise awareness and focus the perception of the gender aspects among decision-makers. It must be emphasised that only necessary, but not sufficient, conditions for gender equality can be identified. The latter is left to the design of the policies in detail, which leaves room for a large number of specific measures and policy instruments.

When considering which gender dimensions have been relevant to what extent, it is found that the most common is dimension 1 (care economy), followed by 7 (body, health, intimacy) and 3 (provision, orientation, accessibility, usability of resources / infrastructures). Dimension 6 (definition and decision-making at the actors level) and dimension 4 (structural aspects: symbolic order) are still clearly effective in this type of assessment. On the other hand, dimension 2 (employment/market economy) plays a relatively small role. Dimension 5 (structural aspects: institutionalised androcentrism) is not yet relevant at this level, but rather at a later point when it comes to the concrete policy design.

Comparison with action programmes

Once the gender assessment of the portfolio is done, it can be used as a benchmark for real action programmes in order to identify whether the strategies and policies that have a high potential for gender equality contributions were taken into account in the action programme.

Gaps or weaknesses from a gender perspective can thus be debunked in climate change action programmes. The GIA is not able to do this because it usually does not have the broad view of an entire policy portfolio, but rather a narrower angle. For example, the GIA usually looks at a specific policy or measure to assess it from the gender perspective and, where appropriate, identify alternatives to the design of the measure, in order to avoid negative effects on gender relations and instead yield positive impacts on gender equality.

The comparison of the portfolio with the BMUB's Mitigation Action Programme for 2020 (BMUB 2014) shows that there are very different levels in the policies and measures listed there - in some cases the programme includes strategic objectives, in other cases policy fields are defined, while in some policy areas very specific implementation instruments are mentioned, such as an ideas contest for climate-friendly construction.

When looking at the strategies and policy areas addressed in the Action Programme, it is striking that the area of traffic avoidance through urban planning is completely lacking, which is a high priority under gender aspects. The climate-friendly building and housing strategy contained in the programme focuses above all on the energy quality of buildings and less on the settlement layouts in terms of their impact on transport needs or, for example, access to service infrastructures.

Another priority area from a gender perspective, namely energy efficiency in the household, is not addressed strategically, but is only represented with pilot projects, some of which target households with low incomes, thus ignoring households with high consumption and thus a high emission reduction potential. There is, however, no strategic approach to tap the savings potential.

Conclusions

The approach is still experimental in nature and does not claim to be a verified methodology. However, the analysis, though still rough and provisional, shows that with this approach, the portfolios of policies and measures contained in climate protection and adaptation programs can in principle be assessed from a gender perspective. It is so far the only approach known to us to examine a portfolio of policies for gaps that should be closed from a gender perspective and, on the other hand, to identify strategies and fields of action to be prioritized.

In the next step, the portfolio could be further developed on the basis of further findings on possible strategies and policies, especially in the area of adaptation. However, it should be emphasised that the more empirical data as well as GIAs are available for individual measures, the more reliable the assessment.

Finally, it should be stressed that the compiled portfolio of strategies and approaches is based on 'conventional wisdom', in order to be applicable as a benchmark for existing programs. More fundamental transformative approaches cannot be discovered with this approach, for example, the transformation of the economic and financial system or a reorganisation of the tax and social system. Both an ambitious climate policy and a gender equality policy require such profound transformations. How these can be designed to meet both closely related objectives is an urgent question and should be subject of a separate investigation.

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