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Project Guidelines on Intersectional Justice

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List of Abbreviations

ABM Agent-Based Modelling

CDE Communication, Dissemination, and Exploitation

CIJ Centre for Intersectional Justice

ENAR European Network Against Racism

EU European Union

HETUS Harmonised European Time Use Surveys

MAPS Models, Assessment, and Policies for Sustainability

PM Project Management

SOEP Socio-Economic Panel

STEM Science Technology Engineering and Mathematics

UN United Nations

USA United States of America

WP Work Package

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Executive Summary

The Project Guidelines on Intersectional Justice provide a comprehensive framework for the Models, Assessment, and Policies for Sustainability (MAPS) research project to assess their practices and outputs through an intersectional justice lens. Intersectional justice refers to recognising and addressing multiple, interconnected social injustices related to factors such as race, gender, class, geography, (dis)ability, sexuality, caste, education, and other axes of identity and social structures. The guidelines outline how such recognition can be applied at various stages of MAPS, including project management, theoretical-conceptual work, qualitative and quantitative methods, as well as communication, dissemination, and exploitation activities. The aim is to ensure that intersectional perspectives are considered at every stage of the project, promoting more inclusive, equitable, and sustainable policy outcomes. The guidelines first and foremost serve as a manual for MAPS members to systematically assess their working practices and outputs throughout the project lifecycle. They strive to make intersectional justice practices both accessible and actionable, enhancing the overall impact and integrity of MAPS. Venturing beyond the scope of MAPS, the guidelines may inform researchers, policymakers, and practitioners who aim at integrating intersectional justice as a cross-cutting theme into their projects.

1. Introduction

As humanity transgresses several planetary boundaries related to Earth-system processes, climate change and other ecological crises worsen globally. High-income, industrialised countries and the wealthiest segments of the world are mainly responsible for these crises, while marginalised people, who are often based in the Majority World[1], are impacted disproportionately (World Bank 2010). This imbalance between responsibility and impact fundamentally makes climate change a social justice issue, highlighting the need for addressing concerns of justice and fairness with regard to global climate policy (Clark and Gunaratnam 2019; Gardiner 2011; Shue 2014). The conventional approach to addressing ecological crises has focused on technological and market solutions, both of which have placed an undue burden on the working class (Bell 2020) and global majorities (Hornborg 2016), while also proving to be limited and inefficient in tackling underlying systemic causes. To ensure post-growth policies are socially just, it is necessary to integrally consider multiple and overlapping axes of discrimination, such as race, class, gender, geography, (dis)ability, sexuality, caste, and education, in other words, an intersectional justice lens.

Today, in the European Union (EU), intersectionality as a "horizontal principle" in project implementation is mentioned as a key pillar of the European Commission's strategy for the 'Union of Equality' (European Commission 2022). Despite this proclamation, EU policies are found to be lacking a deep engagement with intersectionality (Debusscher and Maes 2025). With intersectionality gaining prominence in global policy discourses, it is important to understand what intersectionality entails and where the concept stems from. The term 'intersectionality' was coined by Kimberlé Williams Crenshaw (1989), but, as a travelling concept its origins are much older (e.g., Sojourner Truth's 1851 speech *Ain't I a Woman*). It has firm roots in Black[2] Feminism (e.g., Combahee River Collective 1977; Davis 1981), but also in decolonial feminism, Chicana feminism, and feminist activism (e.g., Mohanty 1984; Moraga 1983). Intersectionality primarily asserts that "major systems of oppression are interlocking" (Combahee River Collective 1977) and that categories, such as race, class, gender, geography, (dis)ability, sexuality, caste, and education, among others, do not exist in isolation nor simply "add up". Feminist and Indigenous scholars from Latin America and Africa have emphasised the inclusion of decolonial perspectives. In their approach, they address other relevant axes of structural and historical deprivations, such as land dispossession, modern/colonial system of gender, Indigenous identity, and rural habitation, among others (Bhandar 2016; Cusicanqui 2010; Lugones 2008; Oyěwùmí 1997).

The EU-funded project Models, Assessment, and Policies for Sustainability (MAPS) commits to intersectional justice as a guiding principle and cross-cutting theme. While it exceeds the scope

[1] The Majority World refers to what may elsewhere be described as the Global South, whereas the Minority World refers to the Global North. Using Minority/Majority World instead of Global North/Global South is an attempt to foreground unequal power relations by showing that the majority of the world in terms of land and people is dominated by a minority (Crawford, Michael, and Mikulewicz 2023).

[2] Following interventions by anti-racist activists and in line with – for example – the AP style guidelines, these guidelines capitalise Black (as well as Indigenous) to point towards historical and cultural commonalities rooted in a shared history of discrimination based on skin colour, which does concern Black and Indigenous, but not white people.

of the guidelines to comprehensively discuss and define justice, the commitment to intersectional justice calls for the recognition and alleviation of intersectional *in*justices. In these Project Guidelines on Intersectional Justice (hereafter referred to as guidelines), intersectional injustice is defined as the *compounded or overlapping discrimination and disadvantages experienced by individuals or groups due to the intersection of multiple social identities and structural deprivations such as race, class, gender, geography, (dis)ability, sexuality, caste, and education, among others.* Figure 1 provides a visual representation of the intersection of multiple axes that define overlapping discrimination and/or privileges within the scope of the structural deprivations and histories that define them. Intersectional justice involves a recognition and redressal of these injustices, and these guidelines aim at establishing what such a recognition and redressal can look like in project management, theoretical-conceptual work, qualitative and quantitative methods, as well as in the communication, dissemination, and exploitation of MAPS.

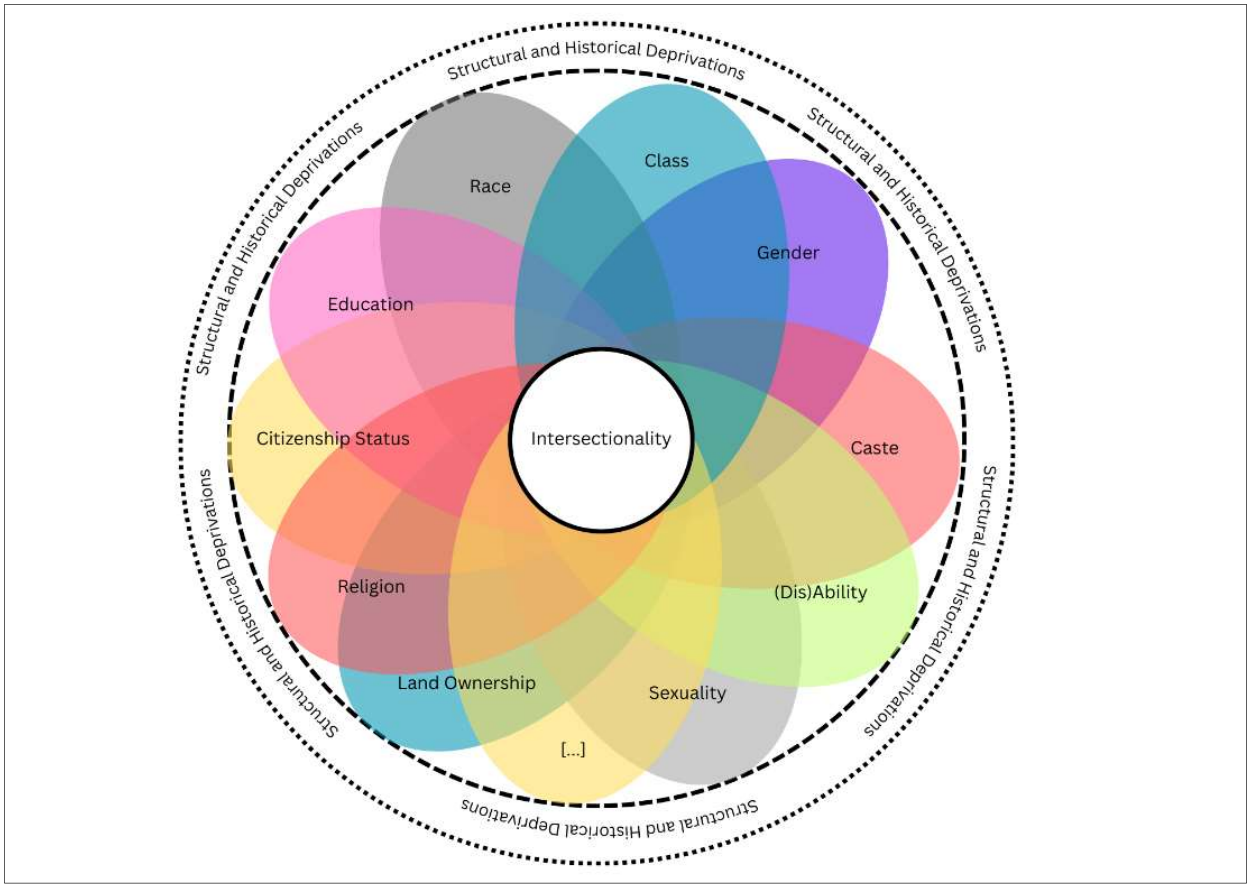

Figure 1: Axes of intersectionality, adapted from the intersectionality wheel presented in the United Nations (UN) Intersectionality Resource Guide and Toolkit.

2. Why incorporate intersectional justice in MAPS?

The inclusion of intersectional justice as a cross-cutting theme is novel in the context of research projects, as most projects that applied this lens were designed for intersectionality as an *end*. In MAPS, intersectional justice is applied as a *means* to developing post-growth visions of models, assessments, and policies. Given that intersectionality is not the core content of MAPS, there may be some challenges and misunderstandings for researchers involved in the project. Against this background, the guidelines aim to make an intersectional lens as accessible as possible across different aspects of the research and administrative stages of the project. Table 1 showcases how to better understand what intersectionality is by contrasting it with common misconceptions.

INTERSECTIONALITY	
does not	but rather
only apply to research topics that are about gender, race, or diversity	is a way of approaching all research topics.
require changing the research context and question	calls for including possible social realities *within* the research/geographical scope to be addressed.
assume that research can be universal, objective, and/or value-neutral	encourages (self-)reflexivity about a researchers' own positionality and the blank spots/omissions that (may) arise throughout the research process.
depend on or limit itself to depicting intersectionality in data	means trying to depict relevant realities in conceptual *and* empirical work, ideally by letting people and realities speak for themselves.
promote tokenism	calls for reflexivity in ensuring the acknowledgement and inclusion of relevant voices.
mean defining which community/individual is the most disadvantaged or privileged	emphasises the unique experience that is manifested from a confluence of identities and socio-economic circumstances.
merely focus on individual experiences	aims at understanding how historical and structural mechanisms (re)produce privilege/oppression that manifest in individual experiences.
translate to an all-or-nothing approach	calls for including intersectionality where possible and acknowledging when unable to.

Table 1: Addressing misconceptions of intersectionality, own depiction.

Following Cho, Crenshaw, and McCall (2013), we recognise that for MAPS to be truly intersectional it requires "an adoption of an intersectional way of thinking about the problem of same-ness and difference and its relation to power" (ibid., 795). Intersectionality as a heuristic (Collins and Bilge 2016) acts as an analytical tool to gain a more nuanced understanding of social outcomes addressed in MAPS. An intersectional justice framework is particularly important when

addressing large-scale global challenges, where intersectional inequalities often shape the outcomes of policy implementation. For example, the scope of the Paris Agreement, Sustainable Development Goals, and the European Green Deal as well as their modest implementation to date, calls for a broader range of ideas for transformative action. In light of these limitations, MAPS starts from the assumption that the range of existing policy options needs to be broadened to include post-growth approaches. It is noteworthy that existing policies often reproduce intersectional inequalities and power relations along the lines of race, class, and/or gender. Hence, an intersectional perspective can add to the critique of existing policies and support the formulation of alternatives by linking them to the grounds and drivers of certain discrimination or privilege (Wallace 2004). Such an analysis allows bringing forth the underlying context driving the inequities (Mbah et al. 2022). In summary, an intersectional perspective contributes to a well-rounded picture that highlights different actors, institutions, policies, and norms as the source of the inequalities being targeted in the research process (Wallace 2004).

Box 1: Intersectionality and additivity of identities

The discrimination faced by a white European woman residing in a welfare state drastically differs from that of a Black queer person seeking asylum in another country. Within the EU, the privileges enjoyed by an upper-class woman from Germany differs from those enjoyed by a man from a lower socio-economic stratum in Romania. As such, discrimination is not a mere addition of discrimination resulting from Blackness, whiteness, queerness, class, citizenship status, etc. Instead, it takes on a unique form that cannot be explained by any of these categories alone, nor by simply adding the experiences of a 'proto-typical' person from each category. Let us remember:

Black man's experience of racism + white woman's experience of sexism + queer man's experience of homophobia ≠ Black queer woman's experience of discrimination

Excluding intersectional perspectives perpetuates systems of oppression by maintaining a narrow and privileged understanding of social outcomes. As argued by Patricia Hill Collins (2000), politics of race and gender influence knowledge production and, hence, are linked to questions of epistemic violence. Epistemic violence is a term coined by Gayatri Spivak (1988) to highlight the silencing of marginalised groups through a deliberate refusal or dismissal of their knowledge. Building on this, research that fails to integrate perspectives of those at the intersection of multiple axes of discrimination risks epistemic violence by ignoring the lived experiences and knowledge of marginalised groups. This can take several forms, such as overlooking working-class concerns or the urban-rural divide in climate policy considerations, neglecting the fact that post-growth policies in Europe have implications for the Majority World, or reducing the diversity of household constellations to heteronormative nuclear families. Examples like these threaten to reproduce existing intersectional injustices, thereby reinforcing power imbalances, further marginalising oppressed groups, and developing policies overly centred on the norm. As such, the claim for incorporating intersectional justice in MAPS is founded on the principles of equity, inclusion, and epistemic justice, marking intersectional justice concerns as an ethical imperative for models, assessment, and policies for sustainability.

Through intersectionality's emphasis on the relation between socio-economic categories, identities, and structural deprivations, it can "illuminate the most effective policy designs" and provide a non-exclusionary evaluation of policy outcomes (Hancock 2007, 74). McCall (2005) highlights the importance of acknowledging the complexity of social realities and developing methods that do justice to the lived experiences of diverse populations. Thus, intersectionality should not only be a part of MAPS on normative grounds but also for important methodological reasons. Including an intersectional lens across data collection and data analysis can upgrade existing analyses, reveal latent structures, and improve policy suggestions. If methodologies are categorical and top-down, they are "unlikely to discover the full-range of vulnerabilities, activities and experiences of diverse [people]" (Wallace 2004, 4). For example, top-down could mean the arbitrary use of race as a distinguishing characteristic. However, through the involvement of the affected community, it may become apparent that race matters little, but religion or class may be more relevant categories.

To counteract this problem, Gudrun Axeli Knapp's (1997) principles of equality, difference, and deconstruction are helpful. The starting point of intersectionality is *equality* and non-discrimination of all people (i.e. not choosing race as a top-down category of difference). In case intersectional injustices arise, a *difference* needs to be made (e.g., by acknowledging an inequality based on class and by including more people from a working-class background in a sample) to address this inequality. In order to avoid essentialising the difference (e.g., by saying that people from a working-class background do not care for the environment), this needs to be followed by *deconstruction* (e.g., by asking: are environmental policies proposed classist and thus stir rejection? – if so: how can this intersectional injustice be redressed?) to again have the possibility to live up to equality (see also Seebacher 2016).

Given the roots of intersectionality in activist spaces, the concept grounds itself as a "counter-hegemonic and transformative intervention in knowledge production, activism, pedagogy, and non-oppressive coalitions" (Carbado et al. 2013, 308). An intersectional lens reminds us to be critical of the state-bound, policy-centric approach followed in MAPS and (re-)root post-growth and degrowth scholarship in activist and civil society spaces. Most responses towards climate change, including those informed by post-growth and degrowth, remain limited to the political boundaries of the nation-state, restricting justice to national or supranational (EU) level policy interventions. This (supra-)national position, which is focused on welfare states, primarily benefits legal citizens (Fisher 2015) and fails to acknowledge how the EU itself, through its historical colonisation and exploitation of the Majority World and peripheral countries, remains complicit in sustaining global inequalities. Taking working time reduction as an example, Silva (2022) argues that policy proposals in the Global North often ignore the "colonial reliance on cheap labour from the South" (ibid., 377). Recognizing intersectional justice as a guiding principle helps questioning the positionality of MAPS in the light of colonial past and present and encourages the development of policies that favour intersectional global justice (e.g., reparations).

Box 2: Intersectional (in)justice and wages for housework

In an attempt to make what was later called "unpaid care work" visible, feminists launched the International Feminist Collective in 1972, which coordinated the Wages for Housework (WfH) campaign. WfH aimed to politicise the sphere of social reproduction by showing the extent to which economies depend on it (Dalla Costa and James 1972; Federici 1975). Rather than a realpolitik demand asking for money, WfH put forward the analysis that capitalism could not afford to pay for all unpaid care work (let alone adequately), thereby questioning the economic system more broadly. Later attempts to monetise unpaid care work often led to commodification, with the provisioning of care increasingly shifted to the market sector (Dengler and Lang 2022). While being able to buy care on the market does alleviate gender injustice for some, an intersectional analysis shows that it reproduces inequalities along axes such as class, race, and gender. Care work is commonly shifted from high-earning couples (mostly women) to racialised women from the Majority World or – in the European context – from Eastern Europe, who face precarious working conditions and are underpaid for the essential work they provide.

An intersectional lens provides scope for MAPS to develop policies that are socially desirable and politically viable, acknowledging the needs of groups affected by intersectional injustices. It allows recognising gaps, such as the communities that cannot be included in our analysis and may still require tailored solutions. For example, in the field of mobility, the needs of a person in the countryside who relies on a wheelchair are distinct from both an able-bodied person in the countryside and a person with a disability in an urban context. To redress this injustice, it is important to ensure that rural public transport is accessible and provide special subsidies for private electric vehicle solutions for people with physical impairments in low-population density locations. In an urban context, a sustainable mobility transition may involve fees for vehicles entering the city, expansion of electric vehicle charging stations, and subsidies for new electric vehicle purchases. However, people with low income who live just outside the city's boundaries (e.g., due to cheaper housing), may find themselves disproportionately affected by the penalties of this mobility transition and unable to access the benefits. An intersectional justice lens would illuminate post-growth policies that ensure that higher-income households pay a greater share, while low-income households' needs are prioritised. While it may seem that intersectionality concerns complicate post-growth proposals of models, assessment, and policies, to be truly transformative, MAPS needs to embrace the nuances that an intersectional lens offers.

3. Making intersectional justice a cross-cutting theme in MAPS

Intersectional justice is a multifaceted concept that can manifest in various aspects of a project, influencing not only its administrative and management practices but also its research methodology, the framing of research questions, and the scope of inquiry itself. This chapter seeks to explore ways in which intersectional justice concerns can be further woven into project practices, offering guidance for enhancing intersectional justice as a cross-cutting theme in the design, implementation, and evaluation stages of the project.

It is noteworthy that MAPS, in its conception, has already taken intersectional justice concerns into account at various stages, not least by devoting a task to developing these guidelines. The strategies outlined here aim to build upon existing efforts and refine the integration of intersectional justice across different dimensions of the project. Fully realising intersectional justice may still prove challenging, given a range of practical constraints, including but not limited to time, budget, and resources (as will be discussed in section 4). While these limitations can influence the extent to which intersectional approaches are fully realised, we should not let perfection be the enemy of good.

The suggestions provided should be viewed as guidelines, not as rigid prescriptions. They are designed to inform decision-making and operational practices, while also prompting critical reflection on areas where gaps or barriers may remain. The aim is to go beyond acknowledging the gaps to simultaneously address them wherever possible. By engaging with intersectional justice as a cross-cutting theme, we can continue to refine our practices and enhance our research, even in the face of inherent challenges. Please read these guidelines and discuss them as a team before your institution or task team begins working on a new task. Ideally, dedicate a meeting to consider how to incorporate the insights.

3.1 Project management

Project management (PM) underpins how the consortium, work packages, and task groups work together in MAPS. It is crucial to apply the insights of intersectionality to not just our outputs but also our internal processes. An intersectional approach to PM will increase our awareness of the group's diverse positionalities, consider ways to counteract intersectional injustices within the MAPS consortium, and enable a collaborative and inclusive workspace.

- **Positionality:** Reflection of positionalities can help reveal how one is placed within the matrix of power relations and the influence this has on the knowledge produced, methods used, and the interpretations drawn (Sultana 2015). Within the context of MAPS, the reflection on positionalities across Work Packages (WPs) and tasks can help determine the project's institutionalised mechanisms of exclusion. As a project situated in the EU, the MAPS team predominantly consists of white and able-bodied researchers from (mostly Western) Europe. While gender balance in terms of equal participation of men and women

was strived for in the consortium, there is an evident gender divide regarding who does qualitative vs. quantitative research, with an overall greater share of men in quantitative approaches. An active reflection process, combined with the inclusion of positionality statements, can help accurately provide the context within which MAPS and the research therein are conceived. The reflection process must not stop with the recognition of the respective positionalities. It needs to be followed by a consideration of how to include other voices to limit biases and omissions within our work, for example through targeted hiring or pro-active skill-sharing.

Box 3: A reflection of positionalities among the authors of these guidelines

Our team acknowledges that our positionality as researchers – along with our personal experiences and affiliations with specific organisations – shape the way we engage with models, assessment, and policies for sustainability. These guidelines were developed collaboratively by a group of authors that has experienced discrimination based on race, gender, nationality, and class. Nonetheless, we recognise that we come from privileged backgrounds (some of us more than others), for example, residing in Europe, having obtained higher education, and working in academia. These shared privileges have afforded us access to spaces where post-growth policymaking is being discussed. We are mindful of the systemic privileges and power dynamics that influence our work, and we aim to be transparent about how our perspectives may shape both our analysis and recommendations. As we work to develop guidelines grounded in intersectional justice, we are committed to addressing the forms of discrimination faced by individuals at the intersections of multiple axes of discrimination. At the same time, we acknowledge that our own lived experiences (e.g., all of us being able-bodied) may limit our understanding of the experiences faced by people and/or communities facing intersectional injustices. We are committed to listening, learning, and adapting our approach in response to feedback from those who are directly affected by the suggestions we advocate for.

- **Hiring process:** Team compositions that include people from diverse backgrounds are important to include a wide spectrum of perspectives in the project work. This enables the research foundations to have what in feminist philosophy of science is called value- and context-sensitive "strong objectivity"[3] (Harding 1992). Often, subconscious biases come into play and result in the reproduction of intersectional injustices, for example, by hiring people with previous education in one's own country or men for quantitative tasks.[4] As

[3] Positivist conceptions of objectivity in science assume that research can be value-neutral and independent of the social, political, and cultural contexts of the researcher. Harding (1992) argues that this idealised objectivity is not only impossible but also hides the ways in which power dynamics influence knowledge production. In suggesting that science is always situated and influenced by the positionality of researchers, Harding advocates that what is commonly regarded as objective knowledge only reaches 'weak objectivity'. Strong objectivity, on the other hand, is a value- and context-sensitive objectivity that starts from embodied social positions and tries to include various perspectives. Thus, according to Harding, a reflection on one's positionality and how it affects research makes way for a stronger objectivity, compared to the research obtained by 'value-neutral' researchers.

[4] In the EU, female graduates from Science Technology Engineering and Mathematics (STEM) programs totalled less than a third of all graduates (Eurostat 2024). While the data on race is sparse in the EU context, the USA also displays a fulminant racial gap in STEM. As per

such, keeping this often-unintended bias in mind, future hiring should be extended to a greater share of women in quantitative tasks within MAPS and – more generally – to people from non-EU countries, different class backgrounds, people with disabilities, and other axes of exclusion. Targeted hiring can be aided by explicitly requesting such persons to apply in the call for applicants, circulating the call proactively within these communities or channels, and ensuring the interview panel is mixed. Additionally, actively supporting the application and hiring of these groups in MAPS can help foster inclusion. However, when advocating for diversity, it is crucial to be aware of the risk of elite capture (Táíwò 2022). Access to academic institutions and EU-funded research initiatives is not always equally available to the public. While promoting the inclusion of more diverse individuals, we must recognise that the significant time, financial, and class-related barriers to entering these institutions may mean that opportunities still tend to favour the elite members of marginalised groups. Thus, it is important to note, that simply calling for diversity does not guarantee true inclusion unless systemic obstacles are addressed.

- **Decision-making processes:** Decisions within consortium proceedings are abundant and tend to mirror the implicit or explicit hierarchies within the project. Hierarchy in decision-making – which can be useful, for instance, to save time – needs to be reflected upon critically, as it can easily lead to an exclusion of voices that are lower on the hierarchy. Whenever possible, and especially for decisions that affect the whole consortium, it is recommended to ensure decision-making processes include the voices of all (e.g., by working with formal consensus decision-making, see Butler and Rothstein 1987). This includes the responsibilities of those hierarchically higher positions to give space and encourage junior researchers, to voice their opinions. Another possible example, for smaller group meetings, using an online form to determine people's preferred meeting days/times allows people with time restrictions (e.g., due to care responsibilities or health constraints that lead to less energy at certain times of the day) to participate in decision-making. Further, when unilateral decisions are convenient and/or necessary, it is important to make the rationale explicit to the rest of the consortium members.
- **Meetings:** Meetings provide the scope for meaningful discussion, feedback, and collaborative work. Aiming to have voices heard, and for collaboration to be non-hierarchical, meetings should be organised in a way that everybody can feel comfortable to contribute. This can be achieved through a combination of means depending on the size of the meeting. Conditional on the time constraints, for smaller group meetings, one of the activities can include a group check-in, initiated by the moderator/facilitator. This can provide a space for participants to express how they are doing/feeling, make struggles people are facing visible, and help to build trust among team members. The moderator/facilitator should be active, observing and aiming at counter-acting dominant speaking behaviour, and promoting an encouraging, respectful, and inclusive culture of communication. In-person meetings should be sensitive to people's capacities and access. They should aim at being inclusive, for example by providing collective childcare to make it easier for people with caring responsibilities to join the meetings or by planning for

the analysis done by Pew Research Centre in 2021, Black and Hispanic adults make up only 8% of all STEM workers in the USA, with Black and Hispanic women in STEM occupying a lower share and having the lowest typical earnings (Fry, Kennedy, and Funk 2021).

enough breaks and providing food as a collective (rather than individualised) solution for structural necessities.

- **Support group:** It is important to acknowledge that – even with the best intentions and under reflexive settings – different forms of discrimination can arise, because of lifelong socialisation in a patriarchal, racist, and ableist society and the simple fact that "privilege is a great blinder" (Sprague 2016, 89). To acknowledge and ideally redress intersectional injustices that are (re)produced in the MAPS consortium, these guidelines call for the establishment of a support group that can be approached if issues of discrimination, dominance, or untenable hierarchies arise during work in MAPS (albeit limited, insofar as MAPS is not an employer). Any MAPS member who feels discriminated against should be able to speak confidentially to the support group, which would then – in consultation with the person who seeks support – decide the best course of action. In case of MAPS, two of the authors these guidelines (Pooja Patki and Corinna Dengler) as well as the project's ethics managers (Federico Demaria and Alexandra Köves) constitute the support group. They can be approached individually or via a support group email address, which will be communicated to all MAPS team members.

3.2 Theoretical and conceptual work

The theoretical and conceptual work in MAPS sets the ground for the whole project, which is why applying an intersectional justice lens here is crucial. An intentional or unintentional ignorance of marginalised voices, both inside and outside of the EU, has the potential to amplify already existing intersectional injustices. Using intersectionality as a guiding principle for the theoretical and conceptual work of the project, will help prevent the marginalisation of non-dominant voices and promote inclusivity.

- **Literature review**: A literature review is often the first step towards developing a conceptual framework. In scouting the relevant literature, there is a tendency to lean towards known, often European and American, white, and/or male scholars. A key question to ask at this stage is 'What voices are heard and why (not)?'. Importantly, although MAPS is EU-focused, its models, assessment, and policies for sustainability have implications beyond European borders. For example, an energy transition in the EU will necessarily affect regions of the world where crucial metals and materials for batteries are mined. Thus, the project and specific tasks therein should aim to engage with literature from the Majority World and marginalised perspectives in their literature reviews. While this is already proposed for some tasks (e.g., by considering proposals that inspire post-growth from the Majority World in task 1.1 or by acknowledging the social provisioning approach in feminist economics as an important contribution to work on provisioning systems in task 2.2), a constant reflection of who/what is (not) included is key. Moreover, not all literature has been translated into English (e.g., Latin American debates on Indigenous feminisms and alternatives to development) and/or (due to unequal funding structures) is available open access. Given the range of countries represented within MAPS, the project is well-positioned to take into account variegated strands of literature.

- **Citations**: Following from the literature review, citations offer a clear overview of who was referenced and importantly, who was not, in a given output. It is important to give visibility to scholars from the Majority World and marginalised (e.g., Indigenous, disabled, queer) scholars, rather than merely to dominant voices, thereby reproducing institutionalised mechanisms of exclusion. Moreover, it is crucial to avoid crediting European scholars for ideas that originate in the Majority World (e.g., by only referencing quantitative accounts of unequal exchange published in European institutions, rather than groundwork from Latin American dependency theory or Walter Rodney's work on how Europe underdeveloped Africa). Double-checking bibliographies can help to identify rather homogenous reference lists and feminist approaches to referencing (with first names) can help to detect androcentrism.
- **Internal diversification of perspectives**: Inclusion of diverse perspectives need not be limited to literature reviews and should additionally be carried out within the team itself. For example, encouraging the active participation of all team members (i.e. also PhD students and not only professors) in defining key concepts and selecting theories promotes the inclusion of alternative perspectives. Similarly, internal review processes can be implemented by asking members from diverse backgrounds to review key outputs to avoid unintended theoretical omissions.
- **Disclosing normative foundations:** The positivist assumption that theories and conceptions can be value- or class-/gender-/race-neutral needs to be abandoned. This involves identifying the normative assumptions in theoretical, conceptual, and methodological claims and making them explicit. Instead of only incorporating intersectionality in a positionality statement in the introduction to an article, it requires constantly reflecting on potential biases stemming from researchers' positionality and how to counteract these.

3.3 Methods

This chapter focuses on applying intersectional justice concerns to research methods. The majority of intersectionality research focuses on qualitative methods (Lynch et al. 2022). However, both qualitative and quantitative research approaches demand careful attention and adjustments to accurately capture experiences shaped by overlapping systems of oppression (Bowleg 2008). While this section aims to delineate strategies for incorporating intersectionality into different methods, it may reinforce methodological binarism by considering qualitative and quantitative methods separately. A mixed methods approach is more suitable to address intersectional justice concerns, as it enables covering the full range of intersectional *experiences*, not just intersectional identities (Jackson, Mohr, and Kindahl 2021). As a project, MAPS follows a mixed methods approach, and constant emphasis should be put on interweaving qualitative and quantitative tasks and WPs more with each other. This can enable more comprehensively grasping different social realities and vulnerabilities in the models, assessments, and policies suggested by MAPS. Additionally, an intersectional lens on mixed methods can enrich analysis by allowing a careful consideration of structural deprivations (such as colonial past and present) in assessing policies and their outcomes.

Box 4: Intersectional (in)justice and legislative blindness towards immigrant women

In the USA, under the marriage fraud provisions of the Immigration and Nationality Act of 1988, a person who had immigrated to marry a citizen or a permanent resident, was required to be "properly married" for two years before applying for permanent resident status. This provision disproportionately impacted immigrant women of colour in abusive relationships. The subsequent public pressure led the Congress to allow for explicit waivers for domestic violence victims. However, this still did not improve the conditions for immigrant women of colour, as the application was challenging in both bureaucratic and linguistical terms and affected women found it difficult to meet the conditions for the waiver and to fight the cultural stigma of leaving marriages (Crenshaw 1991). This is exemplary of how good intentions do not necessarily translate into more inclusive policies and legislation. In analysing the impact of a policy, a focus solely on quantitative methods can lead to an erasure of nuanced experiences. Mixing quantitative with qualitative methods thus provides the scope to engage with affected communities, learning how policies (adversely) affect them, and raising awareness of the (often unintended) reproduction of intersectional injustices. This allows for the formulation of intersectionally just and effective policies and legislations.

In line with Knapp's (1997) principles of equality, difference, and deconstruction (see section 2), the following sections on qualitative and quantitative methods exemplify how an intersectional justice lens can be applied in qualitative and quantitative-oriented research.

3.3.1 Qualitative methods

Qualitative methods in MAPS are an integral part of the project, feeding into and drawing on different stages of the project. Concretely, qualitative methods are used in the following WPs: WP1 (broadening the range of policy options), WP3 (safeguarding social outcomes), and WP6 (informing policymakers and major scientific assessments). In the most generic terms, the purpose of intersectional qualitative research is grounded in an understanding that people embody various social identities and are embedded in society with all its complexities and power relations (Bailey et al. 2019; Esposito and Evans-Winter 2021). Leveraging an intersectional lens in qualitative research thus "offers a means to analyse overlapping structures of oppression, shine a light on the complexities within minoritised groups, and move toward equitable and liberatory futures" (Duran and Jones 2022, 107). The following points address key areas in qualitative research by aiming to recognise and deal with experiences that vary across groups and investigate mechanisms to redress intersectional injustices arising from them.

- **Method selection:** While method selection goes beyond concerns of intersectionality, it is worthwhile to specify how to engage with intersectionality in different qualitative methods. One-on-one interviews are suitable to understand the particular experience of an individual, providing nuance and depth that group settings may not enable. This is especially true for sensitive topics, such as sexuality, violence, or discrimination. In contrast, focus groups can enable dialogue, which illuminate the experiences *within* or *across* groups, highlighting both commonalities and differences. Qualitative surveys

(characterised by descriptive answers) have the benefit of being able to sample larger numbers of persons. However, it is crucial to keep the survey questions open to not pre-determine or categorise experiences that may not be known to the researcher. For example, the multiple-choice question *"What time of day do you normally leave for wage work?" (a) before 7 am (b) before 8 am; or (c) before 9 am"* excludes multiple lived realities – those who do not work in a paid job, those who work from home, and those who have unconventional working hours, for example, night shifts. One learning from intersectionality is that the experiences of people who are affected by intersectional injustice tend to be distinct from the norm and may be more difficult to grasp. Therefore, selecting a method that brings subtle or implicit information to the foreground is ideal. It can be useful to identify which intersecting identities are most relevant in the research design phase and determine which method may best address these audiences.

- **Recruiting and selecting participants**: Researchers must be mindful of the identities and experiences that are represented in their sample. With regard to participatory processes, focus groups, expert interviews, and similar qualitative approaches, it is important to critically reflect on the selection of participants. Depending on the research question, commonly overlooked groups (e.g., people of colour, working class, non-dominant religious groups, non-binary people, etc.) should be explicitly included in the sample. Likely, making the sample more diverse will require extra effort, resources, and planning. With respect to recruitment, Duran and Jones (2022) start their research using demographic forms to ask potential participants which identities are most salient to them across a range of categories (e.g., ability, sexuality, gender, worldview). In the next step, they select individuals across the list of interested participants to recognise the within-group differences (ibid.). The qualitative research in MAPS may also learn from deliberative democracy techniques, where marginalised groups are intentionally oversampled (Steel et al. 2020).
- **Practicalities for data collection**: Depending on the participants, considerations of different needs must be taken upfront. This may include improving accessibility by choosing a location with no physical barriers, using simple language and/or sign language translation, reimbursing travel expenses, or adjusting the timing of data collection to improve participation for those with childcare responsibilities or unconventional working time arrangements. Further considerations could include adjusting the homogeneity of the group to enable more comfortably sharing opinions and experiences on sensitive topics. Another crucial issue for data collection is to avoid viewing interviewees only as information sources, from whom knowledge is extracted. Instead, the intersectional lens can be linked to transdisciplinary approaches, such as community-engaged research. Community-engaged research aims to engage with local groups, involve community stakeholders in the project, let these communities speak for themselves (e.g., by using direct quotes), monetarily compensate the community for their work/knowledge, and disseminate the results back to relevant communities (see the Further Reading list at the end of the guidelines on resources for avoiding extractivism in research).
- **Designing interview questions**: Developing interview questions should be approached as an opportunity to incorporate an intersectional lens. Bowleg (2008) highlights the distinction between additive versus intersectional interview questions. In an additive

approach, individuals' identities and the forms of oppression they face are treated as separate, independent, and cumulative. For example, asking a Black lesbian woman "*How do you experience oppression based on your gender? What about your race?"* treats sexism and racism as distinct forms of oppression and overlooks their intricate effect on the interviewee. To explore the interconnections between various forms of oppression, intersectional interview questions foster a more nuanced understanding. These questions reflect the intersecting identities of participants, for example, asking: (1) *What day-to-day challenges do you face as a Black lesbian woman?* (2) *In what ways do you experience these oppressions as interrelated?* (ibid.).

- **Role of interviewer(s):** The dynamic between interviewer(s) and interviewee(s) in one-to-one-person and multiple-person settings can significantly shape the outcome of a study. Interviewers should deconstruct the power relationships between them and their study participants, devote space to the processes of developing trust with the participants, and consider their positionality in the research project (Esposito and Evans-Winters 2021). In multiple-person settings, the researcher should use active moderation techniques to counteract tendencies such as dominant speaking behaviour or a condescending tone. Ideally, the composition of the researchers in interviewer and/or moderator roles should be diverse (e.g., along the lines of race, gender, or hierarchy). Additionally, focus group leaders should take moderation as a crucial task to hold space, time, and a care-full atmosphere for discussion (rather than as a task that can be done without further preparation).
- **Data analysis and interpretation:** The two key tasks of researchers that regard intersectional justice as a guiding principle are firstly "to derive meaning from the observed data" (Bowleg 2008, 320) and, secondly, "to interpret this individual level data within a larger socio-historical context of structural inequality that may not be explicit or directly observable in the data" (ibid.). This aligns with intersectionality's focus on advancing social change, as well as its attention to structural inequalities and not (solely) individuals' experiences. Rather than a blueprint, intersectional approaches to data analysis offer general considerations that may be of help to avoid reproducing intersectional inequalities in the research findings. Esposito and Evans-Winters (2021) encourage the use of research memos in initial data analysis of interview transcripts and point to the continuous critical reflection of the researcher's positionality and how it affects interpretations. When creating categories (e.g., for coding), it is important to acknowledge that categories can overlap with each other to show how *intersecting* categories (e.g., class and gender) affect a person's lived experience. Coding should ideally be done by more than one person to mitigate subconscious bias. Additionally, it can be best to allow people who are involved in a qualitative study to "speak for themselves". Similarly, those involved in the study (and affected by its findings) can participate in the research interpretation phase to contextualise (and re-frame) findings through the eyes of a more diverse group of people, rather than just the researcher and their specific lens (Mbah et al. 2022, 13). Overall, researchers bear the responsibility for interpreting their data within the framework of socio-historical and structural inequalities (Bowleg 2008). For researchers who regard intersectional justice as a guiding principle, the interpretive task is to uncover the often-

implicit experiences of intersectional injustice, even when participants do not express the connections (ibid.).

Box 5: Intersectional (in)justice and image of welfare recipients

The fusion between race, gender and class creates distinct forms of oppression as illustrated by the image of a non-white welfare recipient. Ange-Marie Hancock (2004) elaborates on the image of a young, poor, Black woman that is considered to be hypersexualised and deliberately producing children with the aim to get more money from the taxpayers and potentially spend it on consuming drugs. These stereotypes weave into public debate and provide justifications for undemocratic policy outcomes (Simien 2007).

3.3.2 Quantitative methods

Including an intersectional lens in quantitative analysis is crucial and enriching for the research process (Guan et al. 2021; Harnois 2013; Mbah et al. 2022). However, it simultaneously poses a challenge, as there are no statistical methods specifically designed for this (Mbah et al. 2022). The biggest challenge to include intersectional justice concerns in quantitative methods remains data availability, especially in the context of research projects that – like MAPS – predominantly draw on secondary data sources. The WPs engaging in quantitative work within MAPS are: WP2 (accounting for biophysical and social realities), WP3 (safeguarding social outcomes), WP4 (improving integrated assessment modelling), and WP5 (quantitatively assessing policy packages). This section aims at understanding intersectionality as a throughline in quantitative analysis.

- **Active deliberation about bias:** As previously discussed, conceptual, qualitative, but also quantitative knowledge and data are not value-neutral and likely carry biases stemming not least from the positionality of researchers. The selection of a specific method, dataset, sample size, time horizon, etc., forms a set of unavoidable decisions in quantitative analyses that are informed by numerous factors. Such factors range from data availability, theoretical background, ontological assumptions, timeline of the project, skillsets, and/or the social position of the researchers. To align the process with intersectional justice, teams working with quantitative methods are encouraged to hold deliberate discussions on their respective positionality, the possibly arising biases, and how to overcome them. It is moreover recommended to explicitly articulate the rationale behind the choices made when publishing and making policy recommendations. This encourages transparency, context-specificity, and replicability, thereby making any possible biases of the researchers visible.
- **Control groups and outliers:** In studying the impact of policies, the quantified effect of a policy or a treatment is commonly calculated in relation to some baseline or control group that tends to represent the norm. It is crucial to interrogate what this norm is, who it consists of, who is excluded, and why (McCall 2005). When dealing with outliers in regression models it is important to acknowledge that outliers or absent data points are real people with real experiences. For example, queer couples and non-binary people tend not

to be represented in time-use studies or – even if they are –tend to be regarded as outliers. The strategy of Statistic Austria in the recent Austrian Harmonised European Time Use Survey (HETUS) was to arbitrarily categorise non-binary people as either men or women based on their birth date (odd or even) (Statistik Austria 2023, 35). This reproduces intersectional injustice, as it leads to the invisibility of non-binary people as well as the misrepresentation of their gender (Heck 2024). This intersectional injustice may be counteracted by adding a clear caveat to the analysis and coupling the quantitative finding with a qualitative component that explicitly addresses the known gaps. In the case of time-use studies, findings pertaining to families could be complemented by qualitative research with regard to the effect of the investigated policy on queer and non-binary families (ibid.). More generally, a strategy to amplify the experiences of underrepresented groups is to include more members of the group through oversampling (e.g., Schröder et al. 2020).

- **Engagement with theory and qualitative methods:** Quantitative research does not exist in a theoretical vacuum. While statistical techniques can identify correlations and patterns, it is theoretical and conceptual work (see section 3.2) that helps explain why those patterns exist and what they mean. Using intersectionality solely in the modelling stage can lead to a fragmented or very narrow understanding of complex social realities. To overcome this limitation, quantitative methods can benefit from closer engagement with qualitative research (see section 3.3.1), particularly in the early stages of the study. Qualitative methods are better suited for exploring the lived realities of individuals and can provide invaluable insights that are often difficult to capture through numerical data alone (Bowleg 2008). Qualitative research illustrates lived experiences, making it a valuable tool to explore the complexity and experiences different individuals and/or groups are confronted with. Thus, it can be useful to draw upon the results from qualitative methods to contextualise, refute, or corroborate quantitative findings – approaching an “exploratory sequential mixed-methods design” (Creswell 2018; Rodriguez 2017).
- **Intersectional implications:** Even in the absence of specific data, it is possible and often necessary to include intersectionality in the discussion and interpretation of the research findings. This includes reviewing qualitative studies and theoretical papers that provide insights into how intersecting identities affect outcomes or processes that might be missing in the data. For instance, if a quantitative study on health disparities lacks data on (dis)ability status, researchers could draw on qualitative research exploring how people with disability experience health inequalities differently depending on their gender, race, or socio-economic background. Moreover, engaging with intersectionality in the literature allows researchers to acknowledge the limitations of their models. For example, if race and gender are not considered in a study examining employment outcomes, the researcher could discuss the potential implications of this absence by drawing on the existing literature on race and gender discrimination in the workplace. This demonstrates a clear understanding of how intersecting factors might shape the outcomes, even if they are not directly measured in the study. Incorporating such discussions into the analysis not only adds depth to the interpretation of results but also shows a commitment to acknowledging the complexities of intersectional inequalities.

- **Leveraging planned methods:** Agent-based modelling (ABM) offers a promising approach for integrating intersectional concerns into quantitative research, particularly when examining complex social systems where individual experiences are shaped by multiple, interacting factors. ABM simulates the interactions of autonomous agents, each representing individuals or entities with unique characteristics. These agents can be assigned attributes such as race, gender, and socio-economic status, among other attributes that intersect to influence their behaviours and outcomes. By modelling how these individual attributes interact within a system, ABM can capture the dynamic nature of intersectional inequalities, providing insights that often get lost in more traditional statistical methods. Since ABM simulates multiple agents based on theoretical expositions, researchers can understand social processes better, thereby refining the theories being tested (Hall et al. 2024; Poile and Safayeni 2016). That ABM is already planned as a method in MAPS to understand and incorporate behavioural and lifestyle changes (in WP4) presents a significant opportunity to explicitly engage with intersectionality. This can be done by for example, by refining the model to reflect how multiple forms of oppression and privilege intersect. By doing so, ABM can provide a rich, nuanced understanding of the effects of intersecting inequalities to account for the complexity of lived experiences (Gilbert and Troitzsch 2005).

3.4 Communication, dissemination, and exploitation

Weaving intersectionality through MAPS begins with our team, ebbs through our research, and makes its way to communication, dissemination, and exploitation (CDE) activities. An intersectional approach to CDE is crucial since it is the public-facing part of the project, creating an image of the team and the project and influencing who engages with our work. Applying an intersectional lens to CDE implies reflecting the team's internal diversity in external communications and adapting our messaging (both in medium and content) to ensure that people from diverse backgrounds and experiences are recognised and included.

- **External communication:** If presentations are given about the MAPS project, it is important to be aware of intersectional inequalities when choosing spokespersons. For example, instead of always choosing the most experienced/famous person (often white, male professors) to present the project, opportunities should be provided to other members of the team whenever possible. To encourage engagement in CDE activities, teams can implement strategies such as offering encouragement, providing training, and adapting expectations.
- **Nature of the communication:** It is recommendable to develop multiple forms of communication tailored to different audiences and consider adapting the examples used in the messaging such that a variety of audiences finds themselves represented in our project. This implies acknowledging that a diversity of people with varied backgrounds will be affected by our suggested models, assessment, and policies for sustainability if they come to fruition. It is our responsibility to make our results easily accessible not only to EU policymakers and IPCC/IPBES communities (labelled as priority stakeholders in the MAPS CDE plan), but also to the broad public. This includes, for example, using jargon-free

language, descriptions of images for people with visual impairments, inclusive language, etc.

- **Communication tools:** It should be ensured that our website uses accessible language and is useable in low-data mode (a lite version or by default) to make it more easily accessible for communities without high-speed internet. [5] Additionally, the website should be accessible for those with visual impairments (font and colour choices, alt texts). The European Commission provides guidelines for digital accessibility[6] that can be used as a basis for creating digital documents that align with (dis)ability needs.
- **Communication audience/reach:** CDE provides the perfect avenue to reach out to communities beyond academia and policymakers. Trade unions, social movements, citizen groups, and communities of marginalised groups that MAPS aims to include in its research can benefit from the research carried out within the project. Reaching a wide audience is key to enabling a broad range of people to engage meaningfully with our work. This implies dissemination of key messages in multiple languages or exploring alternative channels to reach more diverse communities.

Box 6: Intersectional (in)justice and the scope for coalitions

While at first glance, intersectionality can seem to highlight difference, the idea was developed with the aim to understand that identities are inherently heterogenous. These multiple dimensions that constitute identities can, in fact, be key in forming coalitions for political organisation. In its essence, intersectionality challenges us to go beyond the identities that 'feel like home' and to acknowledge other identities that are excluded and invisibilised to negotiate and deliberate ways in which these differences find meaningful expressions in coalitional politics (Crenshaw 1991). For example, the category of race can allow for coalitions between straight and queer people of colour in challenging dominant heteronormative institutions and paradigms. Crenshaw argues that identities having multiple dimensions implies that any identity-based group is already a coalition or has the potential to form coalitions across dimensions.

[5] As an example, see LowTech Magazine: https://solar.lowtechmagazine.com/

[6] See European Commission's latest Accessible EU Report: https://accessible-eu-centre.ec.europa.eu/digital-accessibility_en

4. Challenges of incorporating intersectionality

Throughout these guidelines, there have been many suggestions of ways to improve our work together in MAPS by including intersectional justice as a cross-cutting theme. However, it is important to also acknowledge the challenges in effectively and adequately incorporating this framework into MAPS activities. This section will consider first what those challenges are and, second, explore ways to acknowledge when, as researchers, we face difficulties incorporating insights from intersectionality into our work.

From a project management perspective, a crucial challenge is the number of decisions that have been made before the project began. For example, WP and task leaders already have in mind who they want to hire for a specific position or have limited options because of a lack of candidates with the required academic background – this background itself is shaped by intersectional injustices that compound to create unequal opportunities. Time-sensitivity of decision-making processes may additionally limit the extent to which intersectionality can be applied to project management. These are real barriers to hiring a diverse team and should not be underestimated nor downplayed.

With regard to theory, incorporating an intersectional lens may imply a significant rethinking or overhaul of key concepts within the project which in some instances is unfeasible given project deadlines and resource/time constraints. The effort to collectively re-think and challenge key ideas that underpin the project is not a trivial task and fully embracing an intersectional approach to theory may require a significant reconsideration of tasks. Being aware of such implications beforehand can be helpful to know how much time and capacities can be devoted to this important, yet challenging and time-consuming work.

Methodologically, applying methods in an intersectional manner can be intimidating due to the challenge of translating intersectionality into practical methods and tools (Schiebinger et al. 2010). Previous work on including intersectional methods in research has acknowledged that there is a lack of guidance for how to conduct intersectional research and even encourages the creation of practical guidelines for this purpose (Lynch et al. 2022, 25). Methodological challenges are specific to qualitative and quantitative methods (see section 3.3.1 and 3.3.2 respectively). From a qualitative perspective, a key challenge is identifying and accessing those persons affected by the research topic, which may include persons who are difficult to reach. For example, a study on mobility policies may find it important to include people with limited mobility in their focus group on post-growth mobility policies. However, exactly because of these persons' mobility challenges, it may be hard to organise an in-person focus group. Simply trying hard to make such events "more accessible" may still prove insufficient. A further challenge is how to include a diversity of people (and therefore lived experiences) in an investigation without tokenising these people. In other words, how to avoid having a diverse focus group just for diversity's sake, but to truly ensure that this diversity is in service of the broader goal of combating intersectional injustice.

From a quantitative perspective, methodological challenges are of a different nature – mainly centring on data availability, as most projects use pre-collected data with its given weaknesses and omissions. With regard to the granularity of the data, from an intersectional perspective, disaggregated data is usually preferable as it can better show multiple factors. However, some data sets come pre-aggregated without access to the disaggregated data. In the case of MAPS, most of the data (e.g. the HETUS data) is pre-collected and most of the modelling tasks build upon existing models, thereby inheriting some limitations of the data/models. Thus, it is crucial to reflect on how the data was collected, what has been ignored in the collection, and acknowledge how this will be accounted for in the resultant models and simulations. For instance, the research design may call for including information about people's income, gender, (dis)ability status, race, and their intersections. However, the available datasets may only contain half of those metrics. These metrics impose a further challenge as categories such as gender are fluid, subject to different interpretation, and cannot always be disaggregated into neat buckets, adding to the difficulties of combining and comparing data from different sources.

Collins (2000) suggests that 'knowledge claims' – that is, statements asserting what is known or true – are a representation of "[...] character, values, and ethics" (ibid., 265). As such, acknowledging the limitations of incorporating intersectionality in research is crucial for maintaining academic rigour and transparency. When researchers are unable to fully integrate intersectional perspectives due to obstacles such as time constraints, prior decisions, data availability, methodological limitations, or disciplinary boundaries, it is important to explicitly state these challenges. This acknowledgement should detail the specific aspects of intersectionality that could not be addressed, the reasons for it, and discuss how these gaps may affect the findings and conclusions. For instance, a study focusing on gender disparities might recognise that it accounts for only some additional axes of discrimination such as class or migration status but perhaps not the intersections of (dis)ability or sexuality due to the unavailability of disaggregated data. This transparency allows for a more honest interpretation of the research outcomes and invites future studies to build upon and address these deficiencies. However, acknowledging the absence of intersectionality should not be used as an excuse for oversimplifying complex social issues or for excluding marginalised voices. Acknowledgement of potential deficiencies in incorporating an intersectional lens should only be pursued after all possible avenues of adopting intersectionality have been explored. Such acknowledgements should be coupled with a commitment to improving future research practices, including advocating for more inclusive data collection and interdisciplinary collaboration. Ultimately, this helps to maintain the integrity of research while acknowledging the ongoing need for more comprehensive approaches that can better capture the realities of diverse populations.

5. Conclusion

These guidelines provide a critical framework for embedding MAPS' concerns of equity, fairness, and justice into its research practices, processes, and outputs. In its consideration of intersectional justice as a cross-cutting theme, MAPS emphasises the need to address the crucial issues of systemic inequalities and overlapping systems of oppression. By adopting an intersectional justice lens, researchers can develop a more nuanced, holistic, and transformative approach to post-growth policies. Any model, assessment, or policy for sustainability that fails to integrate intersectionality risks being reductive and reproducing existing inequalities. These guidelines thus strive to make the recognition and redressal of intersectional injustice both accessible and actionable, enhancing the overall impact and integrity of MAPS. They are novel in that they not only address the research process (theoretical work, qualitative and quantitative methods) but also span the entirety of the project cycle, including PM and CDE.

Incorporating intersectional justice into projects like MAPS is both an ethical imperative and a methodological enhancement. By critically reflecting on our teams' positionalities, striving for a more diverse consortium, and challenging dominant frameworks – we open new pathways for overcoming historical and structural inequities embedded within (sustainability) research. Despite the challenges of time constraints, budget limitations, lock-ins, and data availability, we believe it is worthwhile to push ourselves to pursue intersectional justice throughout MAPS and not let perfect be the enemy of good. Embracing intersectionality as a tool promotes not only a deeper understanding of complex societal issues but also aids in the development of equitable and context-sensitive solutions. Such post-growth policies will incorporate the needs of marginalised populations and align with the broader goals of a good life for all within planetary boundaries.

6. A list of further readings

On intersectional qualitative analysis:

- Considerations for Employing Intersectionality in Qualitative Health Research (Abrams et al. 2020)
- Introduction to Intersectional Qualitative Research (Esposito and Evans-Winters 2021)

On intersectional quantitative analysis:

- Advancing Equity through Quantitative Analysis (Mbah et al. 2022)
- Intersectionality in Quantitative Health Disparities Research: A Systematic Review of Challenges in Limitations in Empirical Studies (Harari and Lee 2021)

On intersectional research and conceptual work:

- Doing Justice to Intersectionality in Research (Rice, Harrison, and Friedman 2019)
- Methods of Intersectional Research (Misra, Curington, and Green 2021)
- When Multiplication Doesn't Equal Quick Addition: Examining Intersectionality as a Research Paradigm (Hancock 2007)
- Beyond Extractivism in Research with Communities and Movements (Gorman 2024)

On intersectional justice in project management:

- Resources for addressing intersectional concerns in the workplace (UN WOMEN and UNPRPD 2021)
- Intersectional Discrimination in Europe: relevance, challenges and ways forward by the Center for Intersectional Justice (Roig, Bekele, and Scholz 2019)
- The European Union-Intersectionality Framework: Unpacking Intersectionality in the 'Union of Equality' Agenda (Debusscher and Maes 2025)

References

Abrams, Jasmine A., Ariella Tabaac, Sarah Jung, and Nicole M. Else-Quest. 2020. "Considerations for Employing Intersectionality in Qualitative Health Research." *Social Science & Medicine* 258: 113138.

Bailey, Jane, Valerie Steeves, Jacquelyn Burkell, Leslie Regan Shade, Rakhi Ruparelia, and Priscilla Regan. 2019. "Getting at Equality: Research Methods Informed by the Lessons of Intersectionality." *International Journal of Qualitative Methods* 18: 1609406919846753.

Bell, Karen. 2020. *Working-Class Environmentalism: An Agenda for a Just and Fair Transition to Sustainability.* Springer International Publishing.

Bhandar, Brenna. 2016. "Status as Property: Identity, Land and the Dispossession of First Nations Women in Canada." *Darkmatter Journal* 14.

Bowleg, Lisa. 2008. "When Black + Lesbian + Woman ≠ Black Lesbian Woman: The Methodological Challenges of Qualitative and Quantitative Intersectionality Research." *Sex Roles* 59 (5–6): 312–25.

Butler, C. T. and Amy Rothstein. 1987. *On Conflict and Consensus: A Handbook on Formal Consensus Decisionmaking.* Cambridge, MA: Food Not Bombs.

Carbado, Devon W., Kimberlé W. Crenshaw, Vickie M. Mays, and Barbara Tomlinson. 2013. "Intersectionality: Mapping the Movements of a Theory." *Du Bois Review : Social Science Research on Race* 10 (2): 303–12.

Cho, Sumi, Kimberlé W. Crenshaw, and Leslie McCall. 2013. "Toward a Field of Intersectionality Studies: Theory, Applications, and Praxis." *Signs: Journal of Women in Culture and Society* 38 (4): 785–810.

Clark, Nigel and Yasmin Gunaratnam. 2019. "Exorbitant Responsibility: Geographies of Climate Justice." In *Climate Futures: Re-Imagining Global Climate Justice*, edited by Kum-Kum Bhavnani, John Foran, Priya A. Kurian, and Debashish Munshi, Zed Books, 73–81.

Collins, Patricia Hill, and Sirma Bilge. 2016. *Intersectionality. Key Concepts*. Polity Press.

Collins, Patricia Hill. 2000. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. Routledge.

Combahee River Collective. 1977. "A Black Feminist Statement." In *The Second Wave: A Reader in Feminist Theory*, edited by Linda Nicolson, Routledge, 271–80.

Crawford, Neil J. W., Kavya Michael, and Michael Mikulewicz (eds). 2023. *Climate Justice in the Majority World: Vulnerability, Resistance, and Diverse Knowledges*. Routledge.

Crenshaw, Kimberlé W. 1989. “Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics.” *University of Chicago Legal Forum*: 139–67.

Crenshaw, Kimberlé W. 1991. “Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color.” *Stanford Law Review* 43 (6): 1241–99.

Creswell, John W. 2018. “Mixed Methods Procedures.” In *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, edited by John Ward Creswell and John David Creswell, SAGE, 213–46.

Cusicanqui, Silvia Rivera. 2010. “The Notion of ‘Rights’ and the Paradoxes of Postcolonial Modernity: Indigenous Peoples and Women in Bolivia.” *Qui Parle* 18 (2): 29–54.

Dalla Costa, Mariarosa and Selma James. 1972. *The Power of Women and the Subversion of the Community*. Falling Wall Press.

Davis, Angela. 1981. *Women, Race, and Class*. Random House.

Debusscher, Petra and Eva Luna Maes. 2025. “The European Union-Intersectionality Framework: Unpacking Intersectionality in the ‘Union of Equality’ Agenda.” *Political Studies Review* 23 (1): 276–96.

Dengler, Corinna and Miriam Lang. 2022. “Commoning Care: Feminist Degrowth Visions for a Socio-Ecological Transformation.” *Feminist Economics* 28 (1): 1–28.

Duran, Antonio and Susan Jones. 2022. “Intersectionality as A Lens in Qualitative Research: Possibilities, Problems, and Practices.” In *Advancing Culturally Responsive Research and Researchers*, edited by Penny A. Pasque and E. Alexander, Routledge, 103–18.

Esposito, Jennifer and Venus Evans-Winter. 2021. *Introduction to Intersectional Qualitative Research.* SAGE.

European Commission. 2022. “Union of Equality: The First Year of Actions and Achievements.” December 20. https://ec.europa.eu/commission/presscorner/ detail/en/statement_22_7941 (last accessed: January 31, 2025).

Eurostat. 2024. “Women Totalled Almost a Third of STEM Graduates in 2021.” March 8. https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240308-2 (last accessed: January 31, 2025).

Federici, Silvia. 1975. *Wages Against Housework*. Falling Wall Press.

Fisher, Susannah. 2015. "The Emerging Geographies of Climate Justice." *The Geographical Journal* 181 (1): 73–82.

Fry, Richard, Brian Kennedy, and Cary Funk. 2021. “STEM Jobs See Uneven Progress in Increasing Gender, Racial and Ethnic Diversity.” Pew Research Centre. April 1.

https://www.pewresearch.org/science/2021/04/01/stem-jobs-see-uneven-progress-in-increasing-gender-racial-and-ethnic-diversity/ (last accessed: January 31, 2025).

Gardiner, Stephen M. 2011. “Climate Justice.” In *The Oxford Handbook of Climate Change and Society*, edited by John S. Dryzek, Richard B. Norgaard, and David Schlosberg, Oxford University Press, 309–22.

Gilbert, Nigel, and Klaus G. Troitzsch. 2005. *Simulation for the Social Scientist*. Open University Press.

Gorman, Jamie. 2024. “Beyond Extractivism in Research with Communities and Movements.” The Commons: Social Change Library. https://commonslibrary.org/beyond-extractivism-in-research-with-communities-and-movements/ (last accessed: January 31, 2025).

Guan, Alice, Marilyn Thomas, Eric Vittinghoff, Lisa Bowleg, Christina Mangurian, and Paul Wesson. 2021. “An Investigation of Quantitative Methods for Assessing Intersectionality in Health Research: A Systematic Review.” *SSM - Population Health* 16: 100977.

Hall, Matthew A., Peter Barbrook-Johnson, Sait Bayrakdar, and Andrew King. 2024. “Queer(y)Ing Agent-Based Modeling for Use in LGBTQ Studies: An Example from Workplace Inequalities.” *Journal of Homosexuality* 71 (1): 120–46.

Hancock, Ange-Marie. 2004. *The Politics of Disgust: The Public Identity of the Welfare Queen.* NYU Press.

Hancock, Ange-Marie. 2007. “When Multiplication Doesn’t Equal Quick Addition: Examining Intersectionality as a Research Paradigm.” *Perspectives on Politics* 5 (1): 63–79.

Harari, Lexi and Chioun Lee. 2021. “Intersectionality in Quantitative Health Disparities Research: A Systematic Review of Challenges and Limitations in Empirical Studies.” *Social Science & Medicine* 277: 113876.

Harding, Sandra. 1992. “Rethinking Standpoint Epistemology: What is ‘Strong Objectivity?’” *The Centennial Review* 36 (3): 437–70.

Harnois, Catherine. 2013. *Feminist Measures in Survey Research*. SAGE.

Heck, Lukas. 2024. “‘A Child Does Not Function like Clockwork’: The Hegemony of Clock Time in Time-Use Studies.” Master Thesis, WU Vienna.

Hornborg, Alf. 2016. *Global Magic: Technologies of Appropriation from Ancient Rome to Wall Street*. Palgrave Macmillan.

Jackson, Skyler D., Jonathan J. Mohr, and Alexandra M. Kindahl. 2021. “Intersectional Experiences: A Mixed Methods Experience Sampling Approach to Studying an Elusive Phenomenon.” *Journal of Counseling Psychology* 68 (3): 299–315.

Knapp, Gudrun-Axeli. 1997. “Differenz und Dekonstruktion: Anmerkungen zum ‘Paradigmenwechsel’ in der Frauenforschung.” In *Differenz und Integration: die Zukunft Moderner Gesellschaften*, edited by Stefan Hradil, Campus Verlag, 497–513.

Lugones, María. 2008. “Colonialidad y Género.” *Tabula Rasa* 9: 73–102.

Lynch, Ingrid, Lorenza Fluks, Roshin Essop, Nazeema Isaacs, P. Majokweni, S. Friese, and Heidi van Rooyen. 2022. *Integrated Report: Intersectionality in Research, Grant-Making and Human Capital Development. Considerations for public funding agencies in advancing equality, diversity and inclusion. Integrated report.* HSRC. https://sgciafrica.org/wp-content/uploads/ 2022/11/Integrated-report_Intersectionality-in-research-grant-making-and-human-capital-development.pdf (last accessed: January 31, 2025).

Mbah, Olive, Sevak Purvi, Lauren Amos, Kate Bradley, Annalisa Mastri, Brittany McGill, Maggie Flowers, and Amanda Benton. 2022. *Advancing Equity by Incorporating Intersectionality in Research and Analysis.* Department of Health and Human Services, https://aspe.hhs.gov/ sites/default/ files/documents/d2c38aca5baea78dfef5dce460883a17/Intresectionality-Resrch-Anlysis.pdf (last accessed: January 31, 2025).

McCall, Leslie. 2005. “The Complexity of Intersectionality.” *Signs: Journal of Women in Culture and Society* 30 (3): 1771–1800.

Misra, Joya, Celeste Vaughan Curington, and Venus Mary Green. 2021. “Methods of Intersectional Research.” *Sociological Spectrum* 41 (1): 9–28.

Mohanty, Chandra Talpade. 1984. “Under Western Eyes: Feminist Scholarship and Colonial Discourses.” *Boundary 2*: 333–58.

Moraga, Cherrie. 1983. *Loving in the War Years*. South End Press.

Oyěwùmí, Oyèrónké. 1997. *The Invention of Women*. University of Minnesota Press.

Poile, Christopher and Frank Safayeni. 2016. “Using Computational Modeling for Building Theory: A Double-Edged Sword.” *Journal of Artificial Societies and Social Simulation* 19 (3): 8.

Rice, Carla, Elisabeth Harrison, and May Friedman. 2019. “Doing Justice to Intersectionality in Research.” *Cultural Studies ↔ Critical Methodologies* 19 (6): 409–20.

Rodriguez, Jenny K. 2017. “Intersectionality and Qualitative Research.” In *The SAGE Handbook of Qualitative Business and Management Research Methods*, edited by Catherine Cassell, Ann L. Cunliffe, and Gina Grandy, SAGE, 436–45.

Roig, Emilia Zenzile, Aida Bekele, and Henrike Scholz. 2019. *Intersectional Discrimination in Europe: Relevance, Challenges and Ways Forward.* Center for Intersectional Justice (CIJ) commissioned by the European Network Against Racism (ENAR). https://www.enar-eu.org/wp-content/uploads/intersectionality-report-final-2.pdf (last accessed: January 31, 2025).

Schiebinger, Londa, Ineke Klinge, Addison Arlow, and Sarah Newman. 2010. “Gendered Innovations. Mainstreaming Sex and Gender Analysis into Basic and Applied Research”. Meta-Analysis of Gender and Science Research – Topic Report.

Schröder, Carsten, Charlotte Bartels, Konstantin Göbler, Markus M. Grabka, Johannes König, Rainer Siegers, and Sabine Zinn. 2020. “Improving the Coverage of the Top-Wealth Population in the Socio-Economic Panel (SOEP).” *SOEPpapers on Multidisciplinary Panel Data Research* 1114.

Seebacher, Lisa M. 2016. “Counting People, Not Objects. A Feminist Standpoint Theoretical Perspective on Quantitative Methods & Questionnaire Construction.” Master Thesis, WU Vienna.

Shue, Henry. 2014. *Climate Justice: Vulnerability and Protection*. Oxford University Press.

Silva, Gabriel Trettel. 2022. “Trade and Decolonisation.” In *Degrowth and Strategy. How to Bring About Social-Ecological Transformation*, edited by Barlow, Nathan, Livia Regen, Noémie Cadiou, Ekaterina Chertkovskaya, Max Hollweg, Christina Plank, Merle Schulken, and Verena Wolf, Mayfly, 342–65.

Simien, Evelyn M. 2007. “Doing Intersectionality Research: From Conceptual Issues to Practical Examples.” *Politics & Gender* 3 (2), 264–71.

Spivak, Gayatri. 1988. “Can the Subaltern Speak.” In *Marxism and the Interpretation of Culture*, edited by Cary Nelson and Lawrence Grossberg, University of Illinois Press, 271–316.

Sprague, Joey. 2016. *Feminist Methodologies for Critical Researchers: Bridging Differences*. Rowman & Littlefield.

Statistik Austria. 2023. “Zeitverwendung 2021/22: Ergebnisse Der Zeitverwendungs-erhebung.” Vienna. https://www.statistik.at/fileadmin/user_upload/ZVE_2021-22_barrierefrei.pdf (last accessed: January 31, 2025).

Steel, Daniel, Naseeb Bolduc, Kristina Jenei, and Michael Burgess. 2020. “Rethinking Representation and Diversity in Deliberative Minipublics.” *Journal of Deliberative Democracy* 16 (1): 46–57.

Sultana, Farhana. 2015. “Reflexivity, Positionality and Participatory Ethics: Negotiating Fieldwork Dilemmas in International Research.” *ACME: An International Journal for Critical Geographies* 6 (3): 374–85.

Táíwò, Olúfẹ́mi O. 2022. *Elite Capture: How the Powerful Took Over Identity Politics (And Everything Else)*. Pluto Press.

Truth, Sojourner. 1851. “Women’s Rights Convention.” *The Bugle*, June 21, 1851.

UN WOMEN and UNPRPD. 2021. “Intersectionality Resource Guide and Toolkit: An Intersectional Approach to Leave No One Behind.” Manuals and Tools. December 31. United Nations. https://www.unwomen.org/sites/default/files/2022-01/Intersectionality-resource-guide-and-toolkit-en.pdf (last accessed: January 31, 2025).

Wallace, Rebecca M. 2004. “Intersectionality: A Tool for Gender and Economic Justice.” Association for Women’s Rights in Development (AWID). https://www.awid.org/sites/default/files/atoms/files/intersectionality_a_tool_for_gender_and_economic_justice.pdf (last accessed: January 31, 2025).

World Bank. 2010. “World Development Report 2010: Development and Climate Change.” https://hdl.handle.net/10986/4387 (last accessed: January 31, 2025).

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