Intersections of Sexual and Reproductive Health and Rights and Climate Change:

A Postcolonial Feminist Analysis

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Abbreviations

ARROW	Asian-Pacific Resource and Research Centre for Women
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
GAD	Gender and Development
GBV	Gender-based violence
ICPD	International Conference on Population and Development
IPCC	Intergovernmental Panel on Climate Change
LGBTQI+	Lesbian, gay, bisexual, transgender, queer and intersex
MCH	Maternal and child health
NAPA	National Adaptation Programme of Action
NGO	Non-governmental organisation
PHE	Population-Health-Environment
SDGs	Sustainable Development Goals
SRHR	Sexual and reproductive health and rights
SRH	Sexual and reproductive health
STD	Sexually transmitted disease
STI	Sexually transmitted infection
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNFPA ESARO	United Nations Population Fund East and Southern Africa Reginal Office
WHO	World Health Organisation
WID	Women in Development

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Tiivistelmä - Referat - Abstract

The intersections of climate change and sexual and reproductive health and rights (SRHR) have increasingly received attention from international organisations but also from academia. For some, establishing these intersections is about reducing human pressure on the Earth systems, while for others it is about the human rights of vulnerable individuals and communities. Many have lauded these connections for providing a win-win solution for both. While these benefits are championed, there has been little reflection on the underlying motives and justifications for establishing these connections in the first place. Given the problematic past of population control policies, understanding these justifications is necessary to break away from the neo-colonial practices of the past.

This thesis investigates the motives and justifications for establishing such intersections between SRHR and climate change. Specifically, the thesis addresses two questions, namely: 1) In what ways are the interconnections between SRHR and climate change justified in academic literature? 2) What are the implications of the ways in which these interconnections are justified? By drawing on a postcolonial feminist theoretical framework rooted in understanding this nexus critically, and carefully reflecting on the implications of these discourses, the thesis answers these questions by systematically drawing on a sustained body of research. The data consist of 88 academic publications that are systematised through discourse analysis. The findings identify six distinctive intersectional discourses which reflect the ways in which SRHR, and climate change are justified, namely: public health, population dynamics, reproductive rights, critical, sustainable development and environment discourses.

Largely reflecting adherence to liberal feminist and populationist frameworks, these findings imply that the discourses, justifications, and motives do not sufficiently address the neo-colonial practices and structural inequalities that shape intersections between SRHR and climate change. Analytically, therefore, this thesis suggests that postcolonial feminism offers a more effective way for understanding intersectional discourses because it recognises how power inequalities manifest in the discourses, while contributing towards more justice-based approaches to sustainability.
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Tiivistelmä - Referat - Abstract

Ilmastonmuutoksen ja seksuaali- ja lisääntymisterveyden ja -oikeuksien (SRHR) väliset yhteydet ovat herättäneet sekä kansainvälisten järjestöjen että tutkijoiden kiinnostuksen. Osalle näiden yhteyksien korostaminen on tärkeää, jotta väestön aiheuttamaa painetta luonnonjärjestelmää kohtaan voidaan vähentää, kun taas toisille kyse on haavoituvassa asemassa olevien ihmisten ja yhteisöjen ihmisoikeuksista. Monet ovat korostaneet näiden yhteyksien tunnistamisen johtavan yhteishyötyihin. Vaikka tälläisen lähestymistavan etuja puolustetaan, yhteyksien luomisen taustalla olevia motiiveja ja perusteluja ei ole juurikaan tarkasteltu. Väestökontrollin ongelmallisen historian huomioon ottaen, näiden yhteyksien taustalla olevien perustelujen ymmärtäminen on kuitenkin tärkeää, jotta menneisyyden uuskolonialistisista käytännöistä pystytään irtautumaan.

Tämä pro gradu -tutkielma tutkii SRHR:n ja ilmastonmuutoksen välisten yhteyksien tunnistamisessa hyödynnettäviä motiiveja ja perusteluja. Tutkielma vastaa kahteen tutkimuskysymykseen: 1) Millä tavoin SRHR:n ja ilmastonmuutoksen välisiä yhteyksiä perustellaan akateemisissa julkaisuissa? 2) Mitä vaikutuksia näillä perusteluilla on? Pohjaten postkoloniaali feministiseen teoriaan, jonka tapa lähestyä näitä yhteyksiä on kriittinen, ja joka keskittyy huolellisesti tunnistamaan näiden diskurssien vaikutuksia, tutkielma vastaa näihin kysymyksiin hyödyntämällä olemassa olevaa tutkimusta aiheesta. Tutkimuksen aineisto koostuu 88 akateemisesta julkaisusta, joiden järjestelmällisessä analyysissä hyödynnetään diskurssianalyysia. Tulosten perusteella voidaan erotella kuusi toisiaan läpileikkaavaa diskurssia, jotka heijastavat tapoja miten SRHR:n ja ilmastonmuutoksen välisiä yhteyksiä perustellaan. Nämä ovat kansanterveys-, väestödynamiikka-, lisääntymisoikeudet-, kriittinen-, kestävä kehitys- ja ympäristödiskurssi.

Tulokset osoittavat, että diskurssit, perustelut ja motiviit SRHR:n ja ilmastonmuutoksen yhteyksistä pohjautuvat liberaaliin feminismiin ja väestönkasvun rajoittamista tavoitteleviin lähestymistapoihin. Näin ollen ne eivät huomioi tarpeeksi miten uuskolonialistiset käytännöt ja rakenteellinen epätasa-arvo vaikuttavat näihin yhteyksiin. Tämän tutkielman tulokset viittaavat siihen, että analyyttisesti postkoloniaali feminismi tarjoaa paremman lähestymistavan ymmärtää näitä intersektionaalisia diskursseja, sillä se tunnistaa, miten vallan epätasa-arvoinen jakautuminen niissä näkyy. Samalla se tukee oikeudenmukaisempia tapoja lähestyä kestävyyttä.

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Chapter 1: Introduction

On the 18th of April 2019, twelve international organisations published a global call to action. They urged the signatory countries of the Paris Agreement to take concrete action in integrating sexual and reproductive health and rights (SRHR) into their climate change planning processes (Population and Sustainability Network, 2019). These organisations, including the International Planned Parenthood Federation, Guttmacher Institute, Marie Stopes International and Plan International UK, categorised their demands: the key role that women and girls' sexual and reproductive health and access to sexual and reproductive rights services play on national climate change strategies should be recognised and emphasised (EngenderHealth et al., 2019). This call to action demonstrates a growing interest in integrating sexual and reproductive health and rights (SRHR) into wider development issues in the context of climate change (Mayhew et al., 2020). Just a few months later, a global campaign called *Thriving Together* was launched to emphasise the message of the global call to action. This *Thriving Together* campaign is currently supported by 160 environmental and reproductive health organisations working in over 170 countries (Thriving Together, 2021). The central message of the campaign is to amalgamate SRHR, conservation initiatives, and climate action to enable communities and ecosystems to *thrive together* (Engelman and Johnson, 2019). Thus, placing SRHR in this context has been argued to bring benefits to both human and planetary health and wellbeing (Mayhew et al., 2020).

It is estimated that there are currently more than 200 million women in the world who wish to, but cannot, obtain contraceptive information and services (Starrs et al., 2019). This unmet need for family planning, scholars (e.g., Cottingham et al., 2012) argue, undermines the human rights of these women. Universal access to voluntary family planning is an important human right, recognised by the *Convention on the Elimination of All Forms of Discrimination Against Women* (CEDAW, 1999). According to the advocates of SRHR, in the Global South in particular, sexual and reproductive health and harmful traditional practices are still primary causes of women's death, disability and disempowerment (UNFPA, 2020: 4). Improving the sexual and reproductive health and rights of women in the Global South is, therefore, an important priority for many advocates of SRHR. After all, the cost of doing nothing has been argued to be negative for the health of communities, efficiency of health systems, and performance of national economies (see, e.g., UNFPA, 2020).

Human influence has and is causing major disruptions and changes on our planet (Steffen et al., 2015). The expansion of human actions has led to climate change, loss of biodiversity, and rising inequalities (Folke et al., 2021). Human activity has caused increased greenhouse gas emissions (GHG) that are already causing climate shocks and extremes (Folke et al., 2021). The uneven impacts of climate change are even more serious. Thus, in the context of climate change too, the issue of SRHR is an important priority, since

marginalised women and girls in the Global South have been argued to be particularly fragile to the adverse impacts of climate change (Okereke, 2016; WHO, 2014).

The complex interconnections between climate change and sexual and reproductive health and rights have increasingly received attention from international NGOs. The scientific community is also waking up to the issue and scholars have started to address the topic from different perspectives (e.g., Chersich, 2018; Chersich, 2019; De Souza, 2014; Hardee et al., 2018; Mayhew et al., 2020; McMullen 2019; Starrs et al., 2018; The Lancet, 2009). Whereas attention has been placed on 'proving' these interconnections, existing research (e.g., Bryant et al., 2009; Mohan and Shellard, 2014) is less focused on understanding the reasons for establishing these intersections. Whether this array of interconnections entrenches a 'population bomb' view (Moore, 1954),[1] for example, has received limited consideration. Similarly, there is much less discussion about possible implications of these campaigns for deepening persistent contours of slave, colonial, neo-colonial, and imperial racial hierarchies. More fundamentally, significantly less scientific emphasis has been given to stripping away the veil of environmentalism and probing the underlying motives behind the advocacy of SRHR in the era of climate change. With the surge in the number of development organisations pursuing the twin goal of addressing SRHR and climate change simultaneously (Engelman and Johnson, 2019), this thesis seeks to carefully examine the motives, justifications and drivers for establishing interconnections between SRHR and climate change. Doing so from a postcolonial feminist approach is useful because of the predominantly Western origins of SRHR. Understanding the ways in which these connections are justified requires careful analysis of the meanings tied to them. To understand the ways in which language is used to construct these meanings on the topic, this thesis analyses 88 academic publications sampled from Web of Science, Scopus, PubMed and CODESRIA databases, and utilises discourse analysis as an analytical method to scrutinise academic discourses on SRHR.

The rest of the chapter is divided into two sections. The next section provides a contextualisation to SRHR and climate change. Section two describes the research question, clarifying in what sense the study is original, and what its principle concerns and aims are. Together, these sections demonstrate the need to understand how the integration of climate change and SRHR are being discursively justified in academia. In addition, section two highlights the key arguments of this thesis and how they are structured in the thesis as a whole.

1.1 Context

The first global agreement that discussed sexual and reproductive health and rights was the Programme of Action formulated at the International Conference on Population and Development (ICPD) (Starrs et al.,

[1] The term 'population bomb' was first coined by Hugh Moore in his pamphlet *The Population Bomb*, published in 1955 (Fowler, 1972). The term itself is used to describe uncontrollable population growth that Moore defined to be a critical problem for all the UN member states. He developed these views further in his work at the International Planned Parenthood Federation (Fowler, 1972).

2018). Held in Cairo in 1994, ICPD was a key moment in linking sexual and reproductive rights to *human rights* that were already protected under the international law (Starrs et al., 2018; UNFPA 2004). Simultaneously, ICPD shifted the focus away from family planning as a means for reducing fertility to family planning as a vital tool for empowering women. The legacy of ICPD is also the focus on voluntary family planning and the right of each individual to choose the number, timing and spacing between children (UNFPA, 2004). Thus, the Conference established a rights-based framework for promoting sexual and reproductive health and rights, an approach which was conceptualised to be centred on the rights of each individual to bodily autonomy (United Nations, 1995).

Sexual and reproductive health and rights (SRHR) are comprised of reproductive health, sexual health, reproductive rights, and sexual rights (UNFPA ESARO, 2017). SRHR encompasses human sexuality and reproduction; rights to information and affordable sexual and reproductive health services; rights to bodily autonomy and freedom from coercion or violence; rights to consensual marriage and sexual relations; and rights to family planning (UNFPA ESARO, 2017). For Starrs et al. (2018), SRHR are essential to sustainable development, as they are directly linked to gender equity and women's wellbeing. Table 1.1 provides definitions of the different components of SRHR.

Table 1.1 *Components of SRHR*

Sexual health	According to WHO, sexual health is "a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled" (WHO, 2017: 3).
Reproductive health	The International Conference on Population and Development defines reproductive health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes" (UNFPA, 2004: 45).
Sexual rights	Sexual rights are human rights that recognise the right of everyone to obtain "highest attainable standard of sexual health, seek and receive information about sexuality, receive comprehensive, evidence-based sexuality education, have their bodily integrity respected, choose their sexual partner, decide whether to be sexually active or not, engage in consensual sexual relations, choose whether, when and whom to marry, […] pursue a satisfying, safe and pleasurable sexual life, free from stigma discrimination and make free, informed, and voluntary decisions on their own sexuality, sexual orientation and gender identity" (Starrs et al., 2018: 2645).

Reproductive rights	Reproductive rights are human rights that "rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents" (UNFPA, 2004: 46).

Source: Author's Taxonomy

As Table 1.1. shows, SRHR consists of a wide range of issues that affect reproductive health, bodily autonomy, sexuality and sexual health, and which encompass both human rights and public health. However, despite these conceptualisations, overall SRHR remains politically controversial and contested. In particular matters related to bodily autonomy and sexuality are still politicised in many contexts (Cottingham et al., 2019). Similarly, the realisation of SRHR is highly dependent on the societal context, its legal and policy framework, the services and information it provides, and the societal attitudes that prevail (Cottingham et al., 2019).

Climate change is undeniably one of the greatest crisis of our time. Human impacts on climate are clear and pose significant challenges to the Earth system as a whole, challenging its stability (Folke et al., 2021). The change is already occurring in many places around the world. It is anticipated that the rate of change is going to speed up, and the expected adverse consequences are likely to intensify in the upcoming years and decades (IPCC, 2018). Responses to threats are generally divided into climate change mitigation, adaptation and resilience (COP23, 2018), which are conceptualised in Table 1.2.

Table 1.2 *Components for Responding to Climate Change*

Climate change mitigation	Climate change mitigation is "a human intervention to reduce the sources or enhance the sinks of greenhouse gases" (IPCC, 2014a: 4) with the aim for "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (UNFCCC, as cited in IPCC, 2014a: 4).
Climate adaptation	IPCC's special report on the impacts of 1.5. degree warming defines climate adaptation as "the actions taken to manage impacts of climate change by reducing vulnerability and exposure to its harmful effects and exploiting any potential benefits" (IPCC, 2018: 1).
Climate change resilience	IPCC defines resilience in connection to climate change as "capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation (IPCC, 2014b: 5).

Source: Author's Taxonomy

Table 1.2 thus indicates the three components for responding to climate change (COP23, 2018). From these conceptualisations, it is clear that climate change mitigation efforts aim to tackle the causes of climate change and minimise its anticipated impacts, whereas adaptation to climate change is about reducing its harmful impacts and risks, as well as exploiting potential benefits. Then again, resilience takes a more systems perspective and recognises that humans and nature of inextricably coupled and part of the same socio-ecological system that is required to transform (Folke et al., 2011).

1.2 Research Questions, Aims, Originality, Approach and Arguments

This research aims to answer two research questions: **1) In what ways are the interconnections between SRHR and climate change justified in academic literature? 2) What are the implications of the ways in which these interconnections are justified?** Hence, the aim of this study is twofold. The first is to map out how demonstrating intersections between climate change and SRHR is justified in the academic publications regarding the topic. The second, is to critically assess what building this nexus means from a postcolonial feminist perspective. In doing so, I try to shed light on the current problems of integration, including how gendered and racialised discourses overlook intersectionalities of inequalities that deeply shape how SRHR and climate change outcomes. The overall aim is, thus, to continue the work of scholars that have demonstrated the persistence of a neo-Malthusian logic in international development programmes linking SRHR and climate change (e.g., Bhatia et al., 2019; Hendrixson, 2018; Hendrixson et al., 2019; Sasser, 2014a; Sasser, 2018; Schultz, 2010) by arguing that the academic discourses on climate change and SRHR continue to rely on populationist assumptions. In this respect Western feminism is complicit in perpetuating modernist Western centric development. Simultaneously, I hope to contribute to the search of finding alternative justice-based approaches that facilitate more inclusive SRHR policies in the context of climate change.

This thesis is original, since previous academic work largely either focused on proving the interlinkages between climate change and SRHR or critically reflected on the positionality of international organisations engaging with the topic. By focusing on critically examining the academic discourses on the topic, my thesis potentially has important political ramifications, as it provides important clues as to whether integrating climate change and SRHR policies together should be encouraged in the future, and if so on what grounds. For SRHR advocacy the insights from this thesis point towards the need for approaching their work from a more intersectional lenses that pay respect to equity and justice. Environmentally these findings are significant as they demonstrate the need to rethink approaches to integrating SRHR and climate change and to better consider the alternative paradigm of *just sustainabilities* (Agyeman et al., 2003).

There have been earlier attempts to address such aims, of course. Such studies can be broadly classified into three themes. The first group are studies that focus on proving connections between a component of SRHR and climate change, including for example studies assessing the impacts of climate change on maternal health outcomes. A second group are studies aiming to demonstrate the need for integrated programmes, such as the population, health and environment (PHE) approaches. A third group

are studies focusing on reproductive rights and how they 'empower' women in the era of climate change to become more resilient and adaptable to the anticipated change. However, these existing studies are limited in several ways. Firstly, they do not sufficiently reflect on the historical and ongoing structural issues influencing the topic in hand. Secondly, they tend to place only limited (if any) critical reflection on the implications of 'proving' these connections. A fundamental common theme of these weaknesses is methodological. Most are methodologically modernist and as such place emphasis on the empirical evidence without reflection on the structural power imbalances that influence which knowledge is disseminated and on whose terms. In contrast, such underlying structural factors are revealed in postcolonial feminist studies.

Postcolonial feminist approaches, put forward, for example, by Kimberlé Crenshaw (e.g., Crenshaw, 1989; 1991), Patricia Hill Collins (e.g., Collins, 2000; 2004), Kalpana Wilson (e.g., Wilson, 2012), Nawal El Saadawi (e.g. El Saadawi, 2009), Wangari Maathai (e.g., Maathai, 2009), Chandra Talpade Mohanty (e.g., Mohanty, 1988; 2003), and others, are more relevant. Indeed, my study is informed by the fields of postcolonial studies, feminist studies, reproductive justice and the ideas on just sustainabilities, and theoretical underpinnings of discourse analysis and Linda Tuhiwai Smith's work on decolonising methodologies (Smith, 2012). This research is conducted as a critical review of existing literature taken from a pool of studies available in Pub Med, Web of Science and Scopus. To mitigate the exclusion of studies in the Global South, I have also analysed research published by the Council for the Development of Social Science Research in Africa (CODESRIA). Discourse analysis is used as a data analysis method.

Based on these data, the thesis argues that, currently, the integration of SRHR and climate change is problematic. Such a merger overlooks existing neo-colonial practices and structural inequalities that influence the intersections between SRHR and climate change. I demonstrate that the current discourses continue to rely on populationist assumptions, highlight individual responsibility and choice in responding to the climate crisis and SRHR, while simultaneously making little reflection on how intersecting inequalities and social context limit reproductive freedoms. To develop this argument, the thesis is structured into five chapters. Chapter 2 critically examines how sexual and reproductive concerns have been addressed. I demonstrate the challenges of doing so in the light of historical forms of oppression. I also critically reflect on feminist approaches engaging with the topic, finding them inadequate. I develop a postcolonial feminist approach, defend its relevance and clarify how it can be used. Chapter 3 addresses the methodological drawback of previous studies and showcases the need for critical reflection on discourses on the topic. Chapter 4 provides findings from my critical review, whereas Chapter 5 discusses the findings and their implications in relation to the research approach of this thesis. Overall, my critical exploration of the scholarship on SRHR clearly establishes the need for more inclusive alternatives.

Chapter 2: Questions on Population, Gender and Environment

> Only in a misogynist and racist culture does it seem simpler – and a greater priority – to develop global programs to intervene in the reproductive behaviour of millions of women than it is to challenge the structures of proven environmental destruction.
>
> -Joni Seager, 2000: 1713

To understand the context for SRHR, it is important to obtain a clear vision of how reproduction and sexuality have been connected with environmental issues. Hence, before embarking on the precise literature on climate change and SRHR, I assess how the connections between environment and human health have been built and how they have evolved to the current debates around SRHR and climate change. The emergence of these ideas within modernisation theories can be considered central. Not only did they provide legitimising discourses, they also contributed to the foundation for policy and politics of exclusion, which effectively diverted attention from privilege and existing systemic problems. In section 2.1.1, I also demonstrate how these ideas have fuelled the population control establishment, which historically has resulted in the marginalisation of particularly poor women of colour (Hartmann, 1987). Then, in section 2.2, I articulate how these practices of population control are influencing current debates surrounding climate change and SRHR, as well as how programmatic and policy interventions have been developed to combine these issues through a narrative of win-win solutions that are aligned with sustainable development. I scrutinise these efforts by looking in section 2.3.1 at how the discourses on climate change and SRHR currently produce and reproduce colonial language categories of 'women in the Global South'. In section 2.3.2, my focus will be on assessing how these discourses often fall into the trap of liberal western feminism of 'choice', whilst in section 2.4 I assess the topic from what could be called an environmental justice perspective. In section 2.5, I justify a need to look at the issue from a postcolonial feminist perspective that recognises the colonial power hierarchies, intersectionalities of lived experiences of women during the ongoing climate crisis, and the need to look beyond modern technologies for more systematic responses towards sustainability transformation. All in all, the subsections in this chapter lay the ground for why it is so vital to examine the underlying motives and assumptions presented in the academic discourses on the topic.

2.1 Population 'Problem', Environment and Development

Making connections between population health and environment has a long history. Determining the complex relationship between population and environment or environmental degradation was given a new lease of life in 1798 when Thomas Malthus published the first draft of his essays collectively entitled *Essay on the Principles of Population* (Malthus, 1798). In these essays, Malthus (1798) framed all things, including humans, animals, and plants to have natural limits. For him, crossing these natural limits causes disturbances. In the case of excess population, the Earth's ability to produce enough food for everyone would be disturbed,

causing famine, which would then lead to death to balance the size of population with the Earth's capacity to produce food (Malthus, 1798). Malthus (1798), thus, argued there to be a fixed relationship between Earth's ability to produce food and human reproduction.

Even though many of Malthus' ideas have since been fiercely contested, they have also resonated with many scholars and influenced the development of neo-Malthusian thinking (Dyett and Thomas, 2019: 21). Similarly to Malthus' views, neo-Malthusian perceptions are built on individualism and capitalism, as well as the need to manage the population of the poor (Dyett and Thomas, 2019: 21). This neo-Malthusian rhetoric is clearly visible in the work of Paul Ehrlich who, in 1968, published a book titled *Population Bomb*.[2] Ehrlich's (1969) alarmist tone continued the Malthusian rhetoric and warned the world about uncontrollable population growth and its perils particularly to the world's 'underdeveloped' countries (Robertson, 2012; Seager, 2000).[3] In the 1970s, these views were translated into mainstream thinking and to a perception that uncontrolled population growth results in food shortages, particularly in the Global South (Seager, 2000: 1711). Ehrlich's (1969: xii) famous quote "the battle to feed all humanity is over" announced that without controlling human reproduction food aid and feeding programmes were simply going to waste.

These views have been reinforced in the work of environmentalists, including the Club of Rome's 1972 study *Limits to Growth*, which outlined exponential population growth to have negative and stagnating impacts on economic growth (Meadows et al., 1972). Similarly, biologist Garett Hardin enforced these views in his well-known book *Living Within Limits*, in which he outlined the devastating impacts that high population growth has for ecological stability. For him addressing this challenge culminates in controlling population growth, particularly in areas of high fertility (Hardin, 1993). The common assumption in these works is the idea that the Earth's finite resources or carrying capacity can only be protected through controlling population and reconfiguring economic growth to maintain ecological stability (Foster, 2014: 1030, see also Connelly, 2008). Hence, they rest on the assumption that reduction in human numbers is key for responding to environmental degradation and for preserving the Earth's capacity to sustain people (Aguirre, 2002).

The neo-Malthusian rhetoric of managing population growth particularly in areas, where population growth is the highest is closely linked with the logics of modernisation theories and discourse on development. Modernisation theories rest on the assumption that modernisation is an inevitable, desirable and linear process that will transform societies to higher stages of 'development' following the footsteps of 'developed' countries in the West (Rostow, 1990). Following this, modern and developed societies are categorised as the countries experiencing high economic prosperity and democratic stability – mainly European and Northern American countries (Rostow, 1990). For example, Ehrlich's work builds on making

[2] The book *Population Bomb* was written by both Paul and Anne Ehrlich, but only Paul has been credited for the work (Ehrlich and Ehrlich, 2009).

[3] The use of the word underdevelopment is utilised here to highlight the links between capitalist development and underdevelopment. These connections have been firmly established in the dependency theory developed by Andre Gunder Frank in his influential work *Capitalism and Underdevelopment in Latin America* (1967). According to Frank (1967) the historical process of development has actively generated the underdevelopment of other regions.

these connections between 'development', economic prosperity, and declining birth rate and contrasts economic growth of *modern* countries in the Global North and their declining birth rate with the population growth and prevalence of poverty in the countries in the Global South (Ehrlich, 1969). This discourse on development has laid the ground for assumptions that for underdeveloped countries to reach for the stage of 'developed' they would need to follow the demographic experiences of wealthier countries (Escobar, 1995: 35).

The idea that development and economic prosperity are closely connected to fertility decline is deeply connected to the development economics narrative. For Sen (2000) economic and social development, which includes investing in women's education and employment, are more effective in reducing fertility rates than coercive measures. Particularly advancing family planning and reproductive health can have positive effects on gender equity and freedom of women – something Sen (2000) describes as a definition of true 'development'; freedom. Yet, similarly to scholars like Ehrlich (1969), Sen (2000) constructs population growth as a problem to be managed to ensure fertility decline. Furthermore, Sen's vision of development is very much located in the neoclassical economic view on methodological individualism (Obeng-Odoom, 2018), demonstrated in the way in which he places responsibility to enhance their 'freedoms' to individual families, especially to mothers. Indeed, as Bandarage (1999: 27) argues establishing the connections between development, fertility and poverty cannot be understood in isolation from the economic and social subordination of women. Such analysis would require much more analysis on gender relations and understanding how they influence women's subordination, as for example Agarwal (1994) on her work on women's deprivation of land access, has demonstrated.

Such views about modernisation and development, however, have received significant criticism particularly from postcolonial and decolonial scholars. For example, Arturo Escobar (1995) argues in his influential book, *Encountering Development* that the development discourse creates, maintains, and controls the underdeveloped countries of the Global South. A central element of this critique, particularly in regard to population policies and reproductive rights, relates to how the fears about overpopulation of particularly the "poor and ignorant masses" have resulted in ideas that the countries with high population growth could not wait to develop to reduce their fertility 'naturally' but instead required more direct top-down fertility reduction projects (Escobar, 1995: 35). Establishing such connections is problematic, and as many scholars have demonstrated, since in practice they have resulted in racist and abusive policies with the intent to control certain "undesirable" populations, articulated along racialised lines (Davis, 1981; Hartmann 1987; Hartmann 2014; Murphy, 2017: 135; Sasser, 2018; Robertson, 2012; Wilson, 2012). Indeed, the dark history of the eugenics movement rests on these same assumptions of managing and controlling 'undesirable' populations.[4] Similar rhetoric is evident in the work of Hardin, who in his essay 'Living on a lifeboat', paints a

[4] Seager (2000: 1711) defines eugenics movement as the "`science of race improvement' – produced programs to limit the reproduction of designated `undesirables': sterilizations (mostly female, mostly forced, disproportionately imposed on women of racial and ethnic minorities), dubious medical and pharmaceutical experimentation, and `removals' of

neo-Darwinian argument for the human survival that rests on population control (Hardin, 1974). Accordingly, people in the Global North are living on the lifeboat that has a certain carrying capacity and letting more people into the lifeboat from the world's more 'impoverished regions' would result in overcrowding the lifeboat, going beyond its carrying capacity and resulting in misery for all (Hardin, 1974).[5] Such rhetoric is clearly rooted in white supremacy,[6] and as such been associated with ecofascism (e.g., Dyett and Thomas, 2019).[7] Indeed, it links to the questions of whose life is defined as a "a valuable life" (Stoler, 2002: 63).

On the other hand, such policies have failed to account for the root causes of global development and underdevelopment (Frank, 1967), as well as population growth. Indeed, Bandarage (1999: 24) has demonstrated that growing population in the Global South and the declining birth rates in the Global North are actually rooted in the historical development of capitalism and Western imperialism. She argues that colonial capitalism, exploitation of people, commodification of labour, and poverty created conditions in which large families became a desirable option for the colonised people (Bandarage, 1999: 26). Coupled with the rise of modern technology that decreased mortality, these conditions under capitalism produced population growth in the Global South (Bandarage, 1999). Similarly, empirical evidence also points out to the disconnect between development and birth rate reduction. For example, a study by Lappé and Schurman (1988) on the fertility reduction observed in China, Sri Lanka, Colombia, Chile, Burma and Cuba during 1980-85 demonstrated that the most effective strategies for poverty alleviation and birth rate reduction were investments in income and gender equalities, not generated overall development (as cited in Bandarage, 1999: 28-29).

2.1.1 From Population Problem to Population Control Establishment

These assumptions about development, environmental degradation and population (and poverty) are important to understand, as they have had and continue to have relevance for policymaking and practice. Since the late 1960s these ideas have translated into development aid programmes and the establishment of Western-based population control establishment that focused on human numbers, or more precisely restricting human numbers, particularly in the Global South (Connelly, 2008; Eager, 2004; Hartmann, 1987; Sasser, 2018). The population control establishment constructed procreation as an object to govern. In this context, the work of Betsy Hartmann's (1987) is particularly relevant, given her pioneering work on understanding the economic, political, health and human rights consequences of population and fertility control programmes. Developed in her book *Reproductive Rights and Wrongs* (1987), this work tracks back

various kinds (from institutionalization to withholding of medical assistance)".

[5] Carrying capacity, in particularly when connected to population, rests on the idea that there is a certain amount of people that can live within ecological limits without causing environmental degradation (Sasser, 2018: 64).

[6] Saad (2020: 12) defines white supremacy as "a racist ideology that is based upon the belief that white people are superior in many ways to people of other races and that therefore, white people should be dominant over other races. […] It also extends to how systems and institutions are structured to uphold this white dominance."

[7] Ecofascism, as Dyett and Thomas (2019: 217) defines it, is environmentalism compounded with xenophobic nationalism.

to international institutions, government, and non-governmental organisations in reducing birth rates predominantly in the Global South, whilst simultaneously family planning and contraceptives became viewed as emancipatory for women in the Global North. These policies were a norm guiding international population policy between 1965 and 1994 (Eager, 2004). In her work, Hartmann (1987) compellingly showcases how practices of fertility reduction administered particularly by international development organisations, have actually resulted in reproductive abuses particularly of poor women in the Global South.

Indeed, these eugenic ideas of population control have translated into forced sterilisations and abusive practices around the world, and largely targeted racialised communities and exploited the reproductive rights of Black,[8] Latina and Indigenous women (Hartmann, 1987; Sasser, 2018).[9] Indeed, there is a considerable amount of work that has been done to demonstrate how racism and racialised constructions have informed these population policies (see, e.g., Wilson, 2012). Many of these abusive policies are well documented, including the sterilisation abuses of Mexican immigrant women in Los Angeles hospitals in the 1960s and 1970s, which are harrowingly presented in the Rene Tajima-Peña's documentary *No Más Bebés* (2016). Similarly, in rural India cash transfers and other incentives were used by the US population control establishment to pressure poor women to undergo sterilisation or to accept long-term contraceptives, such as intrauterine devices (IUDs) (Hartmann, 1987). These examples demonstrate a much darker side to the population debate and feed into the debates about whose lives are valued and whose are not, and more fundamentally who gets to make these decisions (see also Shaw and Wilson, 2019).

Manipulation of minority women's bodies is also closely aligned with the concept of biopower that was coined by Foucault (1990) in his book *The History of Sexuality.* For Foucault, biopower is a selective political act that can be used to examine, control and regulate human body (Danaher et al., 2000: 64). The concept of biopower is important to understand in this instance, as it helps one to grasp how modern reproductive technologies have played a role in shaping human behaviour on procreation. Indeed, Foucault (1990: 25) notes that "one of the great innovations in techniques of power in the eighteenth century was the emergence of "population" as an economic and political problem". Hence, population became an economic and political issue to be managed in order to utilise it in the best possible way in the service of the modern state (Sasser, 2018: 23). Seen in this light, biopower "works to construct gender and sexuality along heterosexual and racialised lines in attempt to regulate populations more widely" (Foster, 2014: 1033). The construction of non-white women, particularly in the Global South, as over-reproductive and a population to be 'managed' demonstrates the intersections between race, gender and sexuality – all integral to the operation of biopower (Foster, 2014: 1033, see also Stoler, 2002).

[8] Throughout this thesis I capitalise the word Black to demonstrate the racialised categorisation of people. This is to highlight that "the concept of a 'white race' and a 'black race' is not something that exists in the nature; on the contrary, it is a socially engineered concept invented with a very specific intention in mind. That was racism." (Dabiri, 2021: 27).

[9] The capitalisation of the word Indigenous stems from respect and the belief that Indigenous peoples should be perceived equally to other nations that are capitalised (Labelle et al., 2016).

In the post-ICPD era there has been a radical shift away from these forced family planning interventions to the individual rights and freedoms. Yet, it is important to recognise that even though the ICPD led to the public condemnation of abusive policies and a transition towards reproductive rights that is centred on fulfilment of human rights, reproductive abuses still regularly resurface. For example, recently cases of forced sterilisation were discovered in US prisons, where between 2006 and 2010, at least 148 women, majority of whom were Black or Latina, underwent tubal ligations during postpartum without informed consent (Jindia, 2020).

Despite a significant amount of historical evidence that demonstrate the flaws in the belief that demographic transition results in 'modernisation' and 'development', these beliefs continue to dominate international family planning policies and demography (Sasser, 2018: 61). This context is crucial to appreciate how SRHR has evolved from population control policies to rights-based approaches and how environmental concerns have become connected to these dynamics. Ranging from Western feminist approaches and reproductive rights to questions about reproductive justice and environmental justice the rest of this chapter analyses these themes in turn.

2.2 Climate Change and SRHR: Connecting the Dots

It is important to acknowledge that there is very limited research examining the connections between SRHR and climate change holistically. One reason has been argued to be the broad conceptualisation of SRHR (see, e.g., Mayhew et al., 2020). When defined broadly, sexual and reproductive health and rights consists of many complex issues that coupled with climate change pose challenges to scientific inquiry. Mayhew et al. (2020) for example have argued that the connection between sexual and reproductive health and rights and water scarcity is less clear than the dynamics between population growth and water scarcity. As a result, scholars have tended to address one component of SRHR and its interconnections with climate change. Some have analysed the impacts of climate change to the spread of STDs, such as HIV (see, e.g., Bryant et al., 2009; Chersich, 2019), while others have focused on the impacts of sexual violence and assault in the context of climate emergencies (see, e.g., Tanyag, 2018). Alternatively, scholars have tended to concentrate on one aspect of climate change, such as temperature increases to determine the sexual and reproductive health impacts of predicted change. For example, Matthew Chersich has analysed maternal and newborn health implications of temperature increases, as a consequence of climate change in sub-Saharan Africa (e.g., Chersich et al., 2018; Chersich, 2019).

Since the International Conference on Population and Development (ICPD), voluntary family planning has been advocated not only as a tool for improved reproductive health but also a strategy to 'empower' women and girls living in the Global South (Eager, 2004; Sasser, 2018). In the context of climate change, voluntary family planning and addressing the unmet need for it have become key measures to improve women's sexual and reproductive rights, and as such key investments for sustainable development (*The Lancet*, 2009). This inclusion of women's empowerment as a climate adaptation tool, according to Sasser

(2018), is a relatively new phenomenon. The underlying assumption behind this argument is that investments in SRHR, particularly in family planning, have the capacity to empower people, which then improves their capacity to cope with crisis. Voluntary family planning thus is argued to help vulnerable people to take control of their lives (Jane Goodall, as cited in Engelman and Johnson, 2019).

Since the 1990s, populationists have started to collaborate with environments, forging a new 'green alliance' (Sasser, 2018; Seager, 2000: 1712). Sasser (2018) argues that this rhetoric is clearly still evidenced in the work of some environmental organisations, as their advocacy tool for greater conservation efforts. In this new alliance the core tenant is that a localised phenomenon of high population growth has global repercussions, particularly to the global environment (Seager, 2000). For Mayhew et al. (2020), Sustainable Development Goals (SDGs) provide a justification and an obligation for both the SRHR community and the environmental and climate change community to forge new partnerships. Interdisciplinary programmes that address ecosystem and human health simultaneously have been argued to provide better outcomes than addressing these issues in isolation (Mohan and Shellard, 2014). One such example is the population, health and environment programmes (PHE), which are community-based development projects that address multiple issues concurrently, including natural resource management, conservation, and primary and reproductive health (Hardee et al., 2018). Yet, as McMullen (2019: 15) notes the benefits of these projects are often perceived locally, for example, in the form of improved nutrition, and which in the context of climate change can improve the resilience and adaptive capacity of these communities.

The modern reliance on human numbers is also manifested in discourse around SRHR and climate change mitigation. Efforts to integrate investments in SRHR and climate change mitigation rely on the assumptions that more people equal higher greenhouse gas emissions per person, which leads to a faster rate of climate change (Skeer, 2002; Wire, 2009). Precisely, the urgency to mitigate climate change has led scholars, and particularly environmentalists, to rekindle the idea that reducing human numbers through family planning policies is a solution to climate change (Bongaarts and Sitruk-Ware, 2019). Thus, investments in SRHR, often realised through family planning, can be instrumentalised as climate mitigation strategies as they directly reduce the number of people, and also lower greenhouse gas emission. Precisely, addressing the unmet need for family planning has been set to reduce population growth and reduce demographic pressures on the environment (*The Lancet*, 2009).

Then again, the uncomfortable past of population control has led many people, particularly from the reproductive rights community, to rationalise integrating SRHR and climate change through climate adaptation and resilience. The focus on SRHR and climate change avoids the use of 'population', which according to McMullen (2019) can be a difficult word precisely for many SRHR, reproductive rights and feminist actors. The desire to focus on adaptation and resilience can also be seen to stem from the growing awareness on how climate change is already impacting many communities around the world. The central assumption here is that investments in sexual and reproductive healthcare will result in improved health of individuals, who are also better able to cope with adverse impacts of climate change (Hardee et al., 2018).

These ideas are echoed in the work of the Asian-Pacific Resource Centre for Women (ARROW), which has published several case studies of how climate change impacts women, and more specifically their SRHR needs (e.g., ARROW 2014; 2015). Their work emphasises the importance of rights-based voluntary planning as a tool for climate resilience, particularly in the context of climate related emergencies (ARROW, 2014). It has been argued that the SRHR community should challenge the global architecture of climate change, and its focus on technologies to a broader discussion on rights-based adaptation approach (*The Lancet*, 2009). The Report of the Guttmacher – Lancet Commission outlines the interconnection between SRHR and climate change, since the health of the people affects a country's ability to cope and adapt to changing climate (Starrs et al., 2018).

Yet, in all of these approaches, the common assumption is that population growth is a cause of vulnerability in the era of climate change (e.g., De Souza, 2014; Mutunga and Hardee, 2010; Mutunga et al., 2012). According to Mutunga and Hardee (2010) human population growth is likely to worsen the adverse impacts of climate change particularly in the Global South, and as such slowing population growth offers a key component of climate adaptation policies. Yet, they also take this argument further by stating that reducing population growth serves the dual benefit of improving the adaptation capacity, but also contribute solving climate change by reducing greenhouse gas emissions, through averted births (Mutunga and Hardee, 2010). This rhetoric has been repeated by many environmental organisations engaged in the debate (EngenderHealth et al., 2019; Project Drawdown, 2020).

Despite positive intentions of creating synergies between family planning and conservation, scholars such as Sasser (2018) and Hendrixson (2019) have argued that discourses on integrating population and environment seem to pay little to no attention to the 'dark past' of population control and how it manifests itself today. In her book *On Infertile Ground*, Sasser (2018) has demonstrated the importance of acknowledging this past and its integral role in shifting away from the history of population control narratives. Indeed, understanding the complicated past of population and environment programmes and their connection with population control together with how they percolate current approaches is an important starting point for facilitating more inclusive policies. This possibility is particularly the case because the discourses on population control and fear of diminishing resources have manifested in restrictive fertility control programmes (Cobb, 2016). In the light of these concerns, what could be called an 'amalgamated response' has been developed. Positing that these limitations can be addressed by simply coupling investments in rights and climate resilience, this approach has become the new normal.

The problem then becomes how these populationist claims are mainstreamed into development discourses and the implications that this has on the sexual and reproductive rights of people. According to Hendrixson (2018), the populationist discourse is mainstreamed and interwoven into the human rights and women's empowerment approaches (Hendrixson, 2018). As a result, the opportunities for comprehensive, inclusive SRHR programmes are limited (Hendrixson, 2018). Furthermore, for Foster (2014), population management policies have been legitimised through the discourse on sustainable development. Indeed, in

her work, Foster (2014: 1029) has analysed how UN directives on population and sustainable development "perpetuate gendered and racialised narratives of victimhood and (in)security, related to the persuasive discourses of (sexual) self-restraint, through the rhetoric of sustainable development".

More recently, Hendrixson (2018) has demonstrated how these population control policies still manifest today alongside human rights and women's empowerment approaches. Her work scrutinises the mandate of Family Planning 2020 (FP2020) and demonstrates how international targets like the 120 by 2020 are top-down constructs of technical specialists from the Global North, which problematise the contraceptive use and non-use of poor women of colour in the Global South (Hendrixson, 2018: 789).[10] Defining the contraceptive use and essentially the fertility of women in the Global South as a problem, these top-down initiatives continue the neo-Malthusian rhetoric of population control. This is demonstrated in how population growth is problematised as a primary driver of resource scarcities, violence, poverty and environmental degradation (Hartmann, 2014; Hendrixson, 2018; Sasser, 2018).

The persistence of populationist, neo-Malthusian discourse is also manifested in how representations of 'women in the Global South' are constructed in the context of climate change, along with the neoliberal discourse on individual rights and choice. These issues require more analysis and will be the focus of next section.

2.3 Reproduction, Representation and Rights

Sexual and reproductive health and rights have received significant amount of scholarly attention and scrutiny. There are two sub-themes that can be distinguished, and which are highly relevant in the establishing intersections between SRHR and climate change. First is a question of *representation* of women in the era of climate crisis and environmental degradation. Second is the question regarding *choice* and particularly the different perspectives to this question presented by reproductive rights and reproductive justice scholars and activists. Each is distinct, but both are dialectically related. These discussions are the focus of the following two sub-sections.

2.3.1 Representation of 'Women in the Global South' in the Context of Climate Change

Jade Sasser's book *On Infertile Ground* is a useful starting point. Its argument that the discourse on SRHR and climate change perpetuates myths about the universal "women" of the Global South is poignant (2018: 26). The representation of women in the Global South has received a significant amount of attention from postcolonial scholars. Chandra Mohanty (1988), an influential postcolonial feminist academic, has critiqued the feminist discourses for constructing 'Third World Woman' as a singular monolithic subject. For her, the global hegemony of western scholarship is reflected in the western feminist representations of 'Third World

[10] The aim of the 120 by 2020 target was to provide access for 120 million new users to contraceptives from the 69 poorest countries of the world by the year 2020 (Hendrixson, 2018).

Women'. These universalising and essentialising notions of 'Third World Women' manifest a colonialist discourse that maintain and reproduce existing power imbalances between the 'colonised' and the 'coloniser' (Mohanty, 1988). Furthermore, these representations, according to Mohanty (1988), suppress material and historical heterogeneities and result in reductionist and arbitrary categories. Similarly, Black feminist scholars such as bell hooks have critiqued the colonising gaze through which representations are constructed. In her book *Black Looks: Race and Representation* she investigates how these colonising representations of Black women are rooted in the patriarchal and racist systems of subjugation and domination (hooks, 1992).

Edward Said's (1979) influential work on oriental knowledge is similarly relevant here, as it demonstrates how the system of representation based on the distinction between 'us' and the 'other' instrumentalises and rationalises a colonialist discourse. Indeed, the construction of an 'average third-world woman' is contrasted to the self-representation of western woman (Mohanty, 1988). These essentialised categories privilege the western women as the 'norm' or the 'referent' (Mohanty, 1988). In the context of sexual and reproductive health and rights, women in the Global South are discursively victimised and contrasted to western women, who are able to have control over their bodies and sexualities, as well as have the 'freedom' to choose (Davis, 1981; Stoler, 2002). For Mohanty (1988) the construction of these homogenous categories that contain normative hierarchies are ahistorical and result in paternalistic attitudes towards women in the Global South.

The problem of representation is not only that women in the Global South are homogenised, but it is also a question of how this is done. The representation of 'Third World Women' is based on defining women as victims of different cultural and socio-economic systems (Mohanty, 1988: 54). Objectifying women as the victims of different institutions and systems denies them their agency. Defining women in the Global South as a monolith can be perceived as a manifestation of the ongoing economic and cultural colonisation (Mohanty, 2003: 70). Furthermore, the objectification of 'Third World Women' relies on dichotomising reality. It constructs women as the 'oppressed' and the men as the 'oppressors', or in the context of climate change as the 'polluters' (Shiva and Mies, 2014). Yet, the 'Third World Women' themselves are not part of constructing this discourse (Mohanty, 1988). According to Foster (2014) this paternalistic discourse legitimises the Western development programmes that utilise the language of Western liberal feminism. This problem is also a central question in Gayatri Spivak's (1988) famous essay *Can the subaltern speak*, in which she problematises representation, voice, culture and identity, and demonstrates how power is transmitted through discourse and representation. For her, hegemonic or 'elite discourses' do not permit the subaltern to speak in their own terms – the parameters of representation are predetermined by the oppressor (Spivak, 1988). These discourses are linked with the broader 'women in development' discourse that has since the 1970s argued for a recognition of the gendered impacts of development (Rathgeber, 1990). The 'women in development' or WID discourse, closely linked to liberal feminism, has promoted the idea that women need to be included and given equal opportunities for participating in development processes (Rathgeber, 1990). Yet, it is important to recognise that this WID discourse has been criticised for its acceptance of existing

unequal social structures that result in women's subordination (Rathgeber, 1990; Sasser, 2018). For this reason, new approaches, including the Gender and Development (GAD) approach, have been articulated, as they recognise how women's subordination is produced and reproduced by social, political and economic structures that all contribute to women's subordination (Rathgeber, 1990).

The question of representation is also relevant from a feminist perspective, from which these discourses have manifested in the debates about the role of women or feminism in development and the controversies surrounding it. The discourse on women or gender falls into the Western feminist trap of constructing an imaginary category of "us", as women, whose lived experiences are somehow similar. In the context of environment, these reductionist categories have constructed a discourse on women and environment, which according to Sasser (2018: 18) provides a deep-seated storyline, in which "women are vulnerable victims, subject to harsh impacts of environmental changes, based on an assumed close relationship to nature". These universalisations also overlook the interconnected systems of oppression and how engaging with different groups of people, including men and boys and LGBTQI+ people would provide pathways for changing unequal gender norms (Oosterhoff et al., 2020).

Interestingly, the context of climate change has also resulted in a contradictory discourse of highlighting the 'virtuousness' and 'empowerment' of women and the implications that this has for climate action (Arora-Jonsson, 2011; Sasser, 2018). Scholars from the ecofeminist tradition have particularly promoted the special relationship that women have with nature (Gaard, 2010; Shiva and Mies, 2014). Seen in this light, women in the Global South are perceived as adaptive agents, who are also best equipped to protect nature from the common oppressor (Shiva and Mies, 2014). This notion is closely aligned with Said's (1979) analysis of the romanticised 'other'. Wood (2001) criticises this representation of 'third-world-woman-as-authentic-heroine' for essentialising the diverse lived experiences of women living in the Global South. Schultz (2010) also demonstrates that neo-liberalist rationale is utilised in programming to translate poor, non-white, Indigenous and rural women in the Global South as empowered, responsible agents. Even though this is arguably an upgrade from the victimised object, it still ignores questions about whether these women have the capacity or resources to "save the environment" (Gaard, 2010; Rothe, 2017). Indeed, the danger in highlighting the special relationship between women and nature is that it thrust the responsibility to act on individual women (Resurreccion, 2013), without looking at the systematic factors causing the problem. This shifts focus away from gender inequalities in decision-making and how these imbalances are reproduced through neoliberal institutions (Arora-Jonsson, 2011).

In this context, the work of Kimberlé Crenshaw (1989) is particularly relevant. Crenshaw has demonstrated how the practice of treating gender and race as mutually exclusive categories without understanding their intersectionalities contributes to distorted analysis of racism and sexism, and marginalisation of Black feminist thought (Crenshaw, 1989). To overcome this issue, Crenshaw argues for breaking away from single-axis frameworks in favour of intersectional analysis that recognise the interconnectedness of racism and patriarchy, while advancing the liberation of minorities (Crenshaw, 1989).

Crenshaw's work is also influential in this context, as she demonstrates how intersectionality can move away from essentialising discourses of "woman" – the central pitfall of white, western feminist thinking. Similarly for others, intersectionality recognises that "oppression cannot be reduced to one fundamental type, and that oppressions work together in producing injustice" (Collins, 2000: 18). It has been argued that, by focusing on reproductive justice and addressing some of the root causes of reproductive injustices, the SRHR community could simultaneously address questions on climate justice (Sasser, 2018).

2.3.2 Rights and Choice – For Whom?

For many feminists and reproductive rights scholars (e.g., Cook, 1993; Cottingham et al., 2012; Petroni, 2012; Singh et al., 2014), reproductive rights are centred on the individual right and ability to make decisions about one's sexuality and reproduction, whilst maintaining good sexual and reproductive health. Others have criticised the precise language of choice, due to its failure to recognise barriers that limit the real reproductive choice of women (Gaard, 2010). Thus, the perceived choice is a 'choice' between controlling fertility through contraceptives or terminating pregnancy with contraceptives – not about reproductive health services and rights more broadly (Gaard, 2010). Women of colour activists have particularly resisted the language of choice, as it suggests "a marketplace of options in which women's rights to determine what happens to their bodies is legally protected" although in reality "for women of colour, economic and institutional constraints often restrict their "choices"" (Silliman et al., 2016: 27). Indeed, the rights-based framework has been criticised for its inability to recognise the systematic barriers limiting women's ability to make real choices about their bodies (Davis, 1981; De Onis, 2012; Silliman et al., 2016; Taylor, 1999). As such, it has become blind to the lived realities of women of colour and women who are disproportionally poor or otherwise marginalised.

The problems associated with the reproductive rights discourse and in particularly the recognition that racial, social, economic and political matters influenced the reproductive choices and rights of women has led to the birth of reproductive justice movement led by women of colour activists (Sasser, 2018; Silliman, 2009; Silliman et al., 2016). Reproductive justice as an idea recognises that whilst women's liberation to have reproductive choice is important, historically women from marginalised communities, particularly Black and Indigenous women have been denied their right to have children. For this reason, reproductive justice scholars "fight equally for (1) the right to have a child; (2) the right not to have a child; and (3) the right to parent the children we have, as well as to control our birthing options, such as midwifery. We also fight for the necessary enabling conditions to realize these rights" (Ross, 2008: 4). The theory of reproductive justice recognises the need to look beyond reproductive *rights* and to examine the prevailing social conditions, in which these rights are situated. Reproductive decisions are made within a social context, which means that inequalities in wealth and power influence them (Silliman et al., 2016). For example, in *Age, Race, Class and Sex: Women Redefining Difference* Audre Lorde (1984) demonstrates that the lived experiences across women vary greatly depending on race, class, sexual orientation and age. For this reason, reproductive justice

calls into question the underlying social dynamics, including racial disparities and gender inequalities, and recognise the interconnections between reproductive rights and social justice. Ultimately for reproductive justice scholars and activists, reproductive freedom is a matter of social justice (Roberts, 2000, as cited in di Chiro, 2008: 284, see also Silliman et al., 2016).

Furthermore, as long as patriarchal power relations are reflected in the social, religious and communitarian values, it is difficult to discuss any real 'choice' (Lionnet, 2003: 374). This is clearly visible in the work of Nawal El Saadawi, whose influential work has particularly illuminated the connections between patriarchy and female-genital mutilation (FGM) (El Saadawi, 2009). Indeed, for El Saadawi (2009) the practice of FGM is a manifestation of patriarchy and its effort to control female sexuality and sexual pleasure. Similarly, for Schultz (2010), maternal health programmes tend to frame 'self-determination' in a normative way, by outlining risky reproductive behaviour, as becoming pregnant too early, too late or too often. This demonstrates the difficulty of a real 'self-determination' if the choice is only possible within a certain "right style of conduct" (Schultz, 2010: 198). According to Silliman et al. (2016: 27), these norms are rooted in the neoliberal tradition that focuses on individual rights and emphasises individuals' control over her body as the central tenant of individual liberty and freedom (see also Solinger, 2008). In the context of integrating climate change and SRHR, the assumption is that given the 'choice' women in the Global South would restrict their fertility for their own economic wellbeing as well as for the benefit of planetary health (Foster, 2014).

Not only is the rhetoric around *choice* problematic, so is the language of 'responsibility'. This is visible in the ICPD Programme of Action, which in its principle eight highlights the importance of women to decide 'freely' and 'responsibly' the number and spacing of children (UNFPA, 2004). Yet, as Foster (2014) has argued the word 'responsibly' demonstrates a heavy reliance on Western-centric feminist values around family size and suggests that the only responsible choice is to limit the number of and increase the spacing between children. More worryingly, the word 'responsible' carries a more deep-seated meaning when recognising the ways in which particularly Black women have been historically hyper-sexualised. As in her book *Black Sexual Politics* Collins (2000: 27) exposes the long history of hyper-sexualisation of Black women in the Western discourses. This hyper-sexualisation tracks back to colonial rule. In *Carnal Knowledge and Imperial Power,* Ann Stoler (2002: 78) demonstrates how under colonial rule as "sexual control was both an instrumental image for the body politic – a salient part standing for the whole – and itself fundamental to how racial policies were secured and how colonial projects were carried out". Stoler's (2002) work is important as she indicates how the sexuality and the morality around it was constructed differently for women in the colonies and white European women. Whereas women in the colonies were seen as the sexual objects of white European men's fantasies, white women were constructed through their sexual restrain (Stoler, 2002). For bell hooks, these representations of hyper-sexuality are still 'haunting' the representations of Black women in the present (hooks, 1992: 77).

Discourse on climate change and SRHR place emphasis on women in the Global South, as both the problem and the solution to the persistent issues of climate change and global inequalities (e.g., Sasser,

2018). By victimising the women in the Global South and framing climate problems as functions of the malfunctioning of systems and people in the Global South, this narrative is rather problematic (Sasser, 2014b), and moves away from a truly rights-based approach to development. Indeed, Sasser has argued that this narrative creates a 'sexual steward' – a woman who is "a symbol of the ideal woman framed within the logics of private individual decision-making and choice, who adapts to a modicum of embodied environmental responsibility in the service of global development goals" (Sasser, 2018: 4). Indeed, it creates a justification for exporting Western systems and unbridled faith in markets to the Global South (Hiedanpää and Bromley, 2016).

The concept of embodied responsibility is particularly relevant here. Bhatia et al. (2019) draw attention to the dangers of highlighting the special relationship between women and the Earth, as it tends to frame women as 'environmental stewards' with an embodied responsibility to act and to protect the nature. The perils of this lie in neglecting the question whether women have resources to carry out this embodied responsibility (Gaard, 2010). Indeed, the focus on embodied responsibility has the danger of shifting attention away from the important power imbalances and women's restricted access to control over resources (Bhatia et al., 2019). The concept of 'embodied environmental responsibility' is also evidenced in neoliberal climate governance, which according to some feminist scholars focuses on shifting responsibility to mitigating climate change to individuals instead of centralised, state-based forms of action (Bee et al., 2015: 3).

The discourse on climate resilience is also a reflection of the power dynamics between people in the Global South and Global North. Rothe (2017) argues that gendered discourses around climate resilience essentialise and naturalise gendered categories of 'women in the Global South'. It places vulnerable people in the Global South, often women, at the centre of world politics and the politics of environmental governance. Hence, the discourse on 'climate resilient woman' shifts the responsibility of adapting to climate change to an individual woman (Rothe, 2017). According to Rothe (2017), 'climate resilient woman' is a neoliberal construct that excludes the voices of everyone who are unable to become this desired self-reliant and entrepreneurial neoliberal subject. Framing women in the Global South as 'climate resilient' or 'sexual steward' essentially instrumentalises them (Sasser, 2018: 6) and manifests the technicalisation of women's rights (Sasser, 2014a). It suggests that technological solutions, such as improved access to contraceptives can address complex social, political and economic issues such as climate change or population growth. For Sasser, this technicalisation essentially means oversimplifying complex issues related to sexual and reproductive health and rights to narrow interventions mainly addressing women's fertility (2014: 7-8).

Precisely, rights-based approaches to integrating SRHR and climate change tend to instrumentalise complex problems to simple solutions that are largely 'solvable' by Western technologies, such as modern contraceptives (Sasser, 2018). This has the danger of commodifying women's bodies, for example through the use of new reproductive technologies (NRTs) where women's bodies become objects for reproductive purposes (Gaard, 2010). Thus, it does little to understand the underlying societal, political, economic and

cultural contexts that are also part of shaping these issues. Furthermore, for Hartmann (1987), the contraceptive development and research is itself gendered, with an overemphasis on developing effective female, long-term contraceptives. Her analysis showcases how the problem of population growth and contraception has historically been placed on women, even in situations where male contraceptives and vasectomy would provide better and safer results than female sterilisation (1987: 229). For Hartmann this is essentially a result of gender inequalities and unequal power relationships (Hartmann, 187: 229). More recently, Campo-Engelstein (2012) has shed light on the questions of contraceptive justice and on the implications of placing the responsibility of contraception to women. She argues femininity is connected with reproductive responsibility, which not only places burden on women but also strips away reproductive autonomy from men. For women, this also has potentially unequal health outcomes, as female contraceptive methods continue to have more serious side effects, since they rely on hormones, unlike male contraceptives. (Campo-Engelstein, 2012: 146)

Sasser (2018) has demonstrated how the population dynamics narrative has a certain neo-colonial undertone, as it suggests that population growth is a problem in the Global South (see also Foster, 2014). This neo-colonial framing of sustainability, coupled with the inattention of climate change activists to forces of uneven development, creates a dangerous distraction from the real root causes of climate change, including the extractive resource use and overconsumption in the Global North. For Dyett and Thomas it is then "evidently clear that mainstream discussions of overpopulation and climate change are performances of Western, masculinity, coloniality, patriarchy, and white supremacy" (2019: 210). For Foster (2014) the construction of women in the Global South as eco-subjects is instrumentalised for the benefit of capitalist market expansion. As such new forms of control by private companies have also surfaced, marked by the boom of implants (Bendix and Schultz, 2018). Consequently, what remains is the perception of population as an economic resource to be managed and controlled. Critically examining this issue requires decolonising both Western modernisation and Western feminism.

2.4 Environmental Approaches to SRHR

So far, I have demonstrated how the topic of climate change and SRHR have been approached from developmentalist, populationist, and feminist perspectives. However, scholars with a background in deep ecology have also approached the topic, claiming that the current approaches often fall into an anthropocentric framework, by highlighting the contribution of *individuals* to the socio-ecological crises and focusing on the impacts that these issues have on individual humans (Cobb, 2016). Ontologically, this analysis is located within a modernisation logic and its separation of nature from society (Lugones, 2010; Polanyi, 2001). This human-centrism fails to understand the interconnectedness of humans and nature. A more eco-centric framework for analysing these complex issues would highlight the inseparability of humans from nature or, economy from nature, as Wangari Maathai recurrently argued (Maathai, 2009). Similarly, Foster et al. (2010: 14) argue that the "rift" constructed between humans and nature is arbitrary and stems from

the conflicts and contradictions of the modern capitalist society. Yet, as Lugones (2010) points out this hierarchical dichotomy between nature and humans is central to colonial modernity. Breaking away from this dichotomy between humans and nature requires then challenging the central tenets of modernity itself. It also requires critically examining the implications of ecological modernisation, and its assumptions about 'sustainable' market-based solutions and modern technologies and their ability to 'solve' ongoing ecological crisis (Foster et al., 2010).

However, approaching sustainability and responding to climate change cannot be just a "green enterprise" (Agyeman, 2013). In this context, the work of Julien Agyeman (2013) on the concept of *just sustainabilities* is particularly relevant, as it articulates sustainability to entail questions of equity and justice (Agyeman et al. 2003; Agyeman 2013). Thus, sustainability must be embedded into questions on social justice or ensuring "a better quality of life for all, now, and in the future, in a just and equitable manner, while living within the limits of supporting ecosystems" (Agyeman et al., 2003: 2). This conceptualisation of just sustainabilities builds strong interdependence between environmental sustainability and social justice (Agyeman et al., 2003). Simultaneously, the plural wording of *sustainabilities* acknowledges that achieving sustainability is highly context specific and there are no one-size-fits-all means for achieving sustainability. Hence, the conceptualisation provides a compelling critique to the modernisation theories and their conceptualisations on development, suggesting that the unsustainable development process of the West is not only impossible (Frank, 1967), but it is also undesirable due to the extractive implications it has had to the Earth systems. Instead, Agyeman provides a compelling case that environmental issues, including responses to climate change, should be seen through their connection with social justice and persisting inequalities (Agyeman, 2013; Agyeman et al, 2003). In the context of SRHR the concept of just sustainabilities has, however, received meagre attention.

2.5 Towards Postcolonial Feminist Framework

Postcolonial feminist theory provides a compelling critique of how representations of women constructed particularly through the liberal feminist discourses. In this research, postcolonial feminism is utilised as a theoretical backbone for assessing the ways in which discourses on climate change and SRHR perpetuate existing neo-colonial practices and structural inequalities. Yet, it should be noted that postcolonial feminism is not a monolithic approach with a universal set of epistemologies, but instead it has been developed by scholars with diverse lived experiences, geographies and historical contexts (Struckmann, 2018).

Postcolonial feminism approach utilised in this study draws on a range of theories, including postcolonial theories, critical race theories and feminism. It challenges both patriarchy and liberal feminism that is produced for and by the West (Struckmann, 2018: 17). It thus recognises that feminist theory remains white, and that race, class, sexual orientation, and a host of other identities, that may mitigate experiences of sexism for some, while contributing to the domination of others (Crenshaw, 1989: 326). It does this by critiquing the universalising discourses put forward by liberal feminists that discount the lived experiences of

marginalised women, including women of colour, poor women, and women with non-heteronormative sexual orientations (Struckmann, 2018: 17). According to Heidi Safia Mirza "postcolonial feminist approaches enable us to situate the silent 'spectral' power of colonial times as it appears in the production and reproduction of marginalised, racialised and gendered others in new contemporary times" (2009: 1). Thus, postcolonial feminist theoretical lenses open up room for a more intersectional analysis (Mirza, 2009) and in this way offer a fresh approach for examining the connections with SRHR and climate change.

The strength of postcolonial feminist framework is its recognition of the interconnectedness of knowledge and power (Smith, 2012; see also Mama, 2011). Feminist scholarship also recognises the need to critically examine the structures of knowledge production and reject traditional ways of disciplinary knowledge production that rest on reducing complex issues into simplistic categories (Huutoniemi, 2014: 3-4). Whilst feminist scholars have criticised the positivist approaches to knowledge production, they have been largely unable to deconstruct the dominant ways of knowledge production and practice critical self-reflection on their own positionality (Smith, 2012). This has been evidenced in universalised assumptions about shared oppression that have failed to interrogate how Western feminist scholars themselves hold privilege and power that also translate into their scientific inquiry. Thus, whilst feminist scholarship has rejected the approach on outsider research (positivism), there has been insufficient reflection on how their own research practices continue to uphold patriarchal systems of knowledge production and marginalise oppressed academics (Smith, 2012).

Indeed, previous research on climate change and SRHR have focused largely on proving the intersections, whilst placing limited emphasis on exploring how these intersections have been established and whose interests making these connections serve. For example, Amina Mama (2011) notes that feminist research in Africa has so far largely been produced by scholars from outside of Africa. Collaborative research also has its challenges given the power relations that inevitably shape these discourses. For example, Sariola and Simpson's (2019) work on biomedical research practices in Sri Lanka, presented in *Research as Development,* demonstrates not only the importance of recognising the power dynamics between scholars from the Global South and North, but also the importance of collaboration that serves the potential for moving towards more ethical research practices.

The critical approach of this study is aimed at uncovering questions about justice and assessing how different approaches in engaging with the topic could meaningfully engage with the systemic factors contributing to climate change and persisting gender equalities without reproducing the essentialising discourse of 'women in the Global South' as victims or virtuous 'climate warriors'. In this sense, the postcolonial feminist approach applied to this study is committed to social justice and making a stance on changing "the conditions and relations that exist in the margins" (Smith, 2012: 205). Indeed, as Mama notes by taking such an activist stance feminist research counters reductionist approaches and "technicism" that are depoliticising, and instead challenge unequal systems of power to bring about positive change (Mama, 2007a: 158, see also Mama, 2011). My commitment to critical research is further highlighted in the critical

reflection on my reflexivity, and how it influences my research practices, something that most researchers exploring the topic of SRHR and climate change have not explicitly done.

Utilising postcolonial feminist framework for this study is also needed, since it recognises how gender inequalities intersect with multiple other inequalities, such as class, race, sexuality, disability among others (Struckmann, 2018). These forms of oppression are not mutually exclusive but may overlap. By analysing academic discourses on the topic, this research aims to contribute to this search for alternatives. In this chapter, I have demonstrated some of the existing flaws in integrating SRHR and climate change from environment and reproductive rights perspectives. These challenges demonstrate the need to critically assess whether there are more inclusive ways for assessing these complex issues together. Indeed, this research aims to uncover how SRHR and climate change are integrated in current academic research, and what are the justification for doing so. The following section will look into the methods and data of this research in detail, including the practical details of data collection and analysis.

2.6 Concluding Remarks

This chapter has provided a detailed analysis of how the topic of SRHR and climate change has been previously approached. I began by looking at how the debates on SRHR and climate change are situated in the past conversations on population, environment and development. In doing so, I have recognised the historical context in which the emerging discourses on the intersections of SRHR and climate change are rooted. Such approach, as I have argued, is critical for breaking away from the past abusive policies of population control, which were discussed in detail in section 2.1.1. In section 2.2, I reflected on the previous research on the precise connections between SRHR and climate change. I demonstrated how significant amount of scholarly attention has been placed on either proving these intersections or demonstrating their benefits. As shown, only a limited number of scholars have examined these intersections critically and when they have done so their focus has predominantly been on scrutinising the work of international development organisations. This demonstrates a clear research gap in understanding the ways in which scholars working on the topic justify and establish these intersections.

In section 2.3, I broadened my focus to the ongoing debates within SRHR community that concern particularly the representation of women and their right to make decisions about their SRHR needs. I argued that universalising discourses of women tend to overlook intersectionalities within the group of women and may contribute to the colonial discourses of 'women in the Global South'. Similarly, I argued that the discourses on reproductive rights tend to overlook structural inequalities and barriers that in reality may negatively affect the realisation of these rights. I contextualised these conversations to the emerging work on the intersections between SRHR and climate change, demonstrating the value in reflecting on these debates.

In section 2.4, I reflected on the topic from a more environmental justice perspective and discussed how the concept of *just sustainabilities* could be applied to these discussions. Exploring the topic from a more

environmental justice perspective is critical, as limited assessment on the intersectionalities of vulnerabilities to environmental degradation and climate change have been applied to the context of SRHR.

Then again, in section 2.5, I discussed the challenges in the previous research and argued for the need to explore these intersections from a postcolonial feminist perspective. Such approach is beneficial for several reasons: First, it provides a necessary critique of the positivist ways of knowledge production. Second, it moves beyond liberal Western feminist discourses that universalise the lived experiences of women and recognise how intersecting systems of oppression influence both SRHR and climate change outcomes. Third, it presents a pathway for a more action-oriented research that is committed to achieving social justice. The relevance of the chosen approach is addressed further in detail in the following chapter. The next chapter looks at the data and methods of this research and provides a detailed explanation to the data collection and analysis processes.

Chapter 3: Methods and Data

The questions raised at the end of chapter two require serious reflection. As a result a careful selection and justification of systematic methods for the collection and analysis of data is needed. On the one hand, interviews provide one approach to address these research questions. Document-based approaches, on the other hand, have become more promising. Not only have scientific publications increased in number, they have also become more accessible (Larsen and von Ins, 2010). This case for a document-based approach is complemented by its inherent potential to support an MSc study like this one, which has to be undertaken under the constraints of time. A document-based research method is also more suitable approach during the COVID-19 pandemic, when social distancing measures have made alternative research designs desirable (Jowett, 2020). The range of document-based approaches from which to choose, however, requires further considerations. Is a traditional literature review sufficient? How about a systematic review: is it more reliable? Or is appropriateness a more dependable criterion in which case a critical review is a more suitable approach? These questions bring the aims of the present study into a sharp focus.

In this chapter, I examine the existing approaches, highlight in what respective contexts they can be used optimally, and outline and defend the methods used for conducting this particular research. While the strengths of traditional literature review are its effectiveness in assessing and consolidating existing literature (Grant and Booth, 2009: 97), and proponents of systematic review (e.g., Petticrew and Roberts, 2006) defend it as a panacea, I find both approaches problematic. Given the aims of my study, a critical review is more appropriate, and more comprehensive, as it offers a way to carefully examine the way in which the connections between SRHR and climate change are discursively justified. A critical review also provides room for greater reflexivity. To demonstrate these claims, the rest of this chapter is divided into four sections. The

next section assesses the traditional literature review along with systematic reviews. The second section makes the case for the critical review and how I propose to use it as my central approach for this study. It is followed by a section on discourse analysis, which is utilised as a data analysis method. Finally, in the fourth section I reflect on the strengths and weaknesses of this study.

3.1 Reviewing Literature: Traditional and Systematic Literature Reviews

Literature reviews are the most common type of review that forms the basis of a great deal of research (Paré et al., 2014). The term itself is rather general and is broadly used to describe research that examines past or current literature (Grant and Booth, 2009). Literature reviews act as an analytical foundation for research and demonstrate the relevance of scholarly research on a given topic, through developing, organising and identifying certain gaps in existing research (Lamont, 2015; Turner, 2018). Nevertheless, the process of source and document selection that is used in literature reviews is rarely explicitly stated (Petticrew and Roberts, 2006; Suri, 2014). This influences the external reliability of the research findings, as it makes the replicability of the research findings difficult.[11] The failure to explicitly state how the literature review process was carried out poses questions about potential selection bias (Grant and Booth, 2009).

These selection biases in literature reviews are particularly problematic when recognising the existing impediments in including marginalised voices to mainstream Western databases. Indeed, as Obeng-Odoom (2019) argues, a great deal of research conducted by Africans scholars is not included in the dominant Western online databases. The 2010 World Social Science Report recognises this knowledge divide and the reality that a great deal of African research is underfunded and published in local journals, not visible to international audiences (International Social Science Council, 2010: 65). The marginalisation and inferiorisation of knowledge production are particular persistent for female writers from the Global South (Mama, 2007b; Obeng-Odoom, 2019). Their work is not only miscounted, but it is also underutilised.

To address some of the issues in traditional or narrative reviews, more systematic ways of analysing the existing literature have been developed to comprehensively identify research on a topic (Petticrew and Roberts, 2006: 19). Systematic literature reviews are literature reviews that aim to summarise the prior knowledge on the topic in an organised way (Paré et al., 2014). They entail for comprehensive searches, which are conducted utilising a *priori* protocols and specific, explicitly stated inclusion and exclusion criteria (Suri and Clarke, 2009). On the flip side of the coin, systematic reviews tend to exclude research on the grounds that they do not meet certain pre-described methodological quality (Suri and Clarke, 2009; Thorne, 2017). In doing so, systematic reviews often favour empirical evidence and tend to exclude valuable qualitative research (Hattie, as cited in Suri, 2014: xv). According to Thorne (2017), the exclusion of large bodies of documents based on certain guidelines is arbitrary and may result in the exclusion of viable research.

[11] External reliability refers to the extent to which the research can be replicated (Bryman, 2001: 271).

The exclusion and inclusion processes create what Smith calls "knowledge hierarchies", which reinforce the dominance of certain knowledges compared to others (2012: 45). For Kress (2011) these knowledge hierarchies are rooted in colonialism and positivism, and as such produce and reproduce the Western hegemony in knowledge production. This is particularly the case, as systematic reviews tend to favour inclusion of published peer-reviewed articles, whilst commonly leaving out important sources such as books and book reviews (Thorne, 2017). The strict inclusion and exclusion criteria fail to acknowledge how power is transmitted through these specific criteria. Precisely, Linda Tuhiwai Smith's ground-breaking work on decolonising methodologies draws attention to inequalities in knowledge production and how "power is expressed at both explicit and implicit levels" (2012: 45). Indeed, for Smith (2012) there are 'rules' that guide, which knowledge is recognised, which then shapes our understanding of how the world functions.

As an approach systematic review has also been criticised for its exaggerated claims of objectivity (Chambers et al., 2017). This claim is particularly characteristic of positivist research, which defined and constructed by the West, emphasises the need for value-free and objective ways of producing 'legitimate' knowledge (Smith, 2012: 166). Yet, as many critical, feminist and Indigenous theorists have demonstrated, knowledge production is not value free (Smith, 2012). Even if researchers report data collection processes transparently, they still make value judgements about what to include and exclude, and on what counts as relevant knowledge. Indeed, even researchers working with *a priori* protocols can be blinded by their gaze and omit certain connections arising from the data (Suri, 2014: 43). Thus, as for Thorne (2017), the goal of qualitative reviews should be to shift away from the positivist roots of knowledge gathering, towards knowledge discovery where interpretation and critical reflection of the existing literature are the priority. Precisely, she critiques the growing tendency to focus on developing systematic search strategies, whilst and dismissing of qualitative interpretation of what the data gather means (Thorne, 2017). Instead, researchers must critically reflect on their position, underlying research paradigms and how these influence their research process and results. Only in this way it is possible to recognise the diversity, complexity and depth of the previous research in the review and critically assess the existing inequalities in knowledge production.

3.2 Critical Review

The recognition of the issues associated with literature reviews, systematic reviews and the colonial practices in knowledge production have influenced my decision to use a critical review approach. From the perspective of this study, a critical review allows me to "analyse the extant literature on a broad topic to reveal weaknesses, contradictions, controversies or inconsistencies" (Paré et al., 2014: 189). Indeed, it enables me to critically reflect on the ways in which integration of climate change and SRHR is justified in the existing literature, and to further examine whether this integration is effective. Critical review also helps me to focus on some of the ethical concerns about both the outcomes and processes of conducting this research. For Suri (2014: 2), rigorous synthesis or review should include sufficient information about the review process, which

will enable readers to assess whether the findings of the research may be adaptable to their contexts. To ensure the rigorousness of my research, I will report the review process as transparently as possible.

In developing the methodology for this review, I utilised Suri's (2014) guiding principles for quality research synthesis. These three guiding principles are: "informed subjectivity and reflexivity; purposefully informed selective inclusivity; and audience-appropriate transparency" (Suri, 2014: 42). According to Suri (2014: 43), informed subjectivity means that researchers "ought to be explicit about where they are coming from and how their own positioning may have influenced the synthesis". This is important because, the process of designing a review methodology involves a series of judgements to be made. For me, as a white, northern European cis-woman engaged in climate activism, I found myself critically reflecting on whether I am capable of conducting research on this topic. I reflected on my own unearned privileges, and how I might reproduce oppressive colonial patterns of knowledge production, and in doing so legitimise this oppression during this research process (Swadener and Mutua, 2008: 5). I was particularly contemplating my Eurocentric gaze and how that influences my decision-making, particularly in terms of data selection, extraction, and analysis.

Acknowledging the biases in knowledge production and the marginalisation of scholars from the Global South, I chose to practise purposefully informed selective methodological inclusivity.[12] This increased the need for informed, critical and deliberate selectivity (Suri, 2014). Indeed, Swadener and Mutua (2008: 5) acknowledge that decolonising research must begin with the recognition that non-Western and Indigenous knowledge production is marginalised, resulting in silencing non-Western and Indigenous voices. Thus, when designing the research methodology, I was constantly reflecting on my own role as a researcher. I reflected on the choices I made and whether I was homogenising the literature, omitting important sources of information or ignoring key nuances in the documents. This recognition also resulted in the purposeful sampling of publications from selected journals in the Global South. Throughout the process, I also reflected on inclusion and exclusion criteria to ensure that I was not excluding articles based on some rigid rules, if they otherwise engaged with the topic.

To practice methodological inclusivity also meant that I sought to include material from diverse sources (see also Grant and Booth, 2009). This review relied on three online journal databases and the publications from the Council for the Development of Social Science Research in Africa. The three journal databases, PubMed, Web of Science and Scopus, were selected, due to their wide circulation, relevance for the research area, and the reliance of many African natural scientists and scientific organisations such as the African Academy of Sciences on these databases. Web of Science (WoS) was selected, as it is a robust database, consisting of over 33,000 journals stemming from over 256 disciplines (Shaffril et al., 2018). WoS includes subjects related to development and environmental studies, which made it an ideal database for this research. Similarly, Scopus was selected due to its wide reach. It is the largest abstract and citation

[12] Informed selective inclusivity is a term used by Suri (2014: 44) to describe critical, informed and purposeful selectivity, which recognises the responsibilities of excluding data.

databases for peer-reviewed literature (Scopus, 2020). Scopus includes literature from diverse subjects including both environmental and social sciences (Shaffril et al., 2018). Lastly, PubMed was selected since it comprises of over 30 million citations from MEDLINE and other biomedical and life sciences journals (PubMed, 2020). It includes citations and abstracts of research from biomedicine and health, and thus fits well for searching literature on SRHR. Recognising the existing publishing biases, I chose to also purposefully sample documents from Council for the Development of Social Science Research in Africa (CODESRIA). CODESRIA is an African social science research association that aims to facilitate knowledge production in Africa (CODESRIA, 2014). Additionally, a search was conducted from African Journals Online database, but after the initial screening of the identified documents it became clear that none of the papers identified addressed the topic.

Critical reviews often analyse documents based on clearly formulated research questions and explicit defined inclusion and exclusion criteria (Nielsen and D'haen, 2014: 403). To ensure audience-appropriate transparency, I decided to develop a broad inclusion criteria for document selection. This included defining suitable search terms that would allow me to capture the key materials published on the topic (see, Appendix 1). In defining the search terms for the databases, I utilised previous reviews and their search words. Since there are no existing reviews on the comprehensive topic, it was necessary for me to look at reviews that address one component of the topic at the time. Thus, in defining the search words for SRHR, I utilised the search words defined by Blanchet et al. (2015), Van Belle et al. (2018) and Ivanova et al. (2018) as baselines.

Peer-reviewed articles, policy documents, editorials, reviews and book chapters were included in the analysis as secondary source documents. Only publications published in English were included. In future, more comprehensive studies could include papers written in the diverse scientific languages used, for example, in Africa. The time period was selected to start from September 1994, when the ICPD defining the parameters of SRHR was held. This meant that all publications published prior to September 1994 were excluded from the analysis.

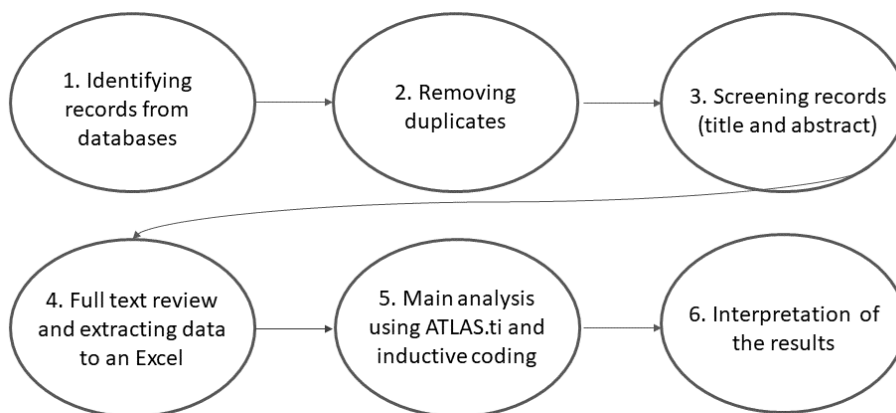
The analysis process consisted of identification, screening and eligibility checks, which were divided into four stages: screening, removing duplicates, review of title and abstract, and assessing the full manuscript. The review process started with the identification of documents meeting the inclusion criteria from the selected databases. This was done using the specific search terms (see, Appendix 1), after which all of the documents meeting the inclusion criteria were exported to EndNote reference management software. EndNote software was selected, as it provides a user-friendly tool to store the documents meeting the inclusion criteria (Clarivate Analytics, 2020). A total of 1060 articles were retrieved from the three databases using relevant keywords. From CODESRIA 38 articles were retrieved.

Having extracted the publications to EndNote, I begun the process of screening the articles. This included several steps. First, I ensured that all the duplicates were removed. After the removal of duplicates, 770 articles were retained. Having removed duplicates, I began the process of screening the title, year and abstract of the selected publications to ensure that they were eligible and met the inclusion criteria. A

screening of the retained articles based on their titles, year and abstract resulted in the inclusion of 102 articles to the data extraction of articles. During the extraction and reading through the full articles it became clear that fourteen of the included papers did not in reality address the topic and were excluded. In total 88 publications were included in the analysis.

After all the relevant publications were identified, I began the data extraction process. Data was extracted into a standardised Microsoft Excel worksheet. Each publication was categorised according to publication year, type of the publication, geographical focus and the topic. Data extraction was carried out by reading through the article, with a special focus on the title, abstract and keywords of the article. During the data extraction, my aim was to categorise publications based on which aspects of SRHR and climate change the publication was addressing. The categorisation thus served the purpose of identifying certain themes from the publications. I developed the categorisation deductively based on the identified themes and components of SRHR.[13] To improve the consistency of data collection and extraction process (Suri, 2014), I maintained a code-book to which I recorded each decision during the data inclusion and exclusion process. Figure 3.1 presents the critical review process.

Figure 3.1 *Critical Review Process.*



Source: Author's Analysis

The data analysis was conducted utilising ATLAS.ti. As a qualitative data analysis software, its use was deemed necessary to systematically organise and categorise the large quantity of data. ATLAS.ti was selected given that it has been successfully applied to previous studies utilising discourse analysis as a method (e.g., Paulus and Lester, 2015). The analysis was carried out through reading the articles and inductively generating coding categories from key passages of the text.[14] Coding the text served the purpose of categorising the articles into themes and sub-themes that made the critical reflection on the emerging issues more digestible.

[13] Bryman (2001: 502) defines deductive as "an approach to the relationship between theory and research in which the latter is conducted with reference to hypotheses and ideas inferred from the former".
[14] Inductive coding means coding that the codes were derived from the text, following inductive reasoning (Lamont, 2015: 170).

Given the size of the dataset, I coded only passages of the text that were addressing the intersections of SRHR and climate change. For example, I did not code parts of the text that were not relevant for the analysis, such as detailed descriptions of the methodological processes used in the studies. This was necessary given the limited timeframe and scope of this thesis. Since, I conducted the data extraction independently I paid close attention to what Suri (2014) defines as 'coder fatigue'. In practice, this meant that I only coded for short intervals at a time.

3.3 Discourse Analysis

Qualitative discourse analysis (QDA) was selected as a method of analysis. Discourse analysis (DA) is a form of qualitative data analysis that allows researchers to analyse discourse "as a particular way of talking about and understanding the world" (Jørgensen and Phillips, 2002: 2). QDA relies on the assumption that language is more than patterns of words. Ontologically, discourses are deeply embedded in the surrounding social context and are not only shaped by it, but also shape it by creating meanings to it. Thus, language and knowledge are not stagnant, but instead construct and reproduce the social world around us (Bryman, 2015: 531-540).

Discourse analysis was chosen as a method of analysis, since it helps to uncover how academic publications construct meaning to the interconnections between and SRHR and climate change, and in this way justify these intersections. Little previous research has examined the topic using a discourse analysis: Dyett and Thomas (2019) have examined the discourses of international development organisations engaged in the debate on SRHR and climate change, while Foster (2014) has conducted discourse analysis of UN documents that address the intersections of population, environment, and development, and identifies population discourse and sustainable development discourse.

Texts, including academic publications, vary in the way they construct meaning to certain aspects of the world and how they mix different discourses together (Fairclough, 2003: 133). For Foucault (1990) discourse is produced by a set of linguistic categories and the way in which these categories are utilised to describe an object and to produce meaning to the object itself (Bryman, 2015: 531). Identifying differences in discourses is possible through assessing semantic relations between words, which include among other things the assumptions presented in the text, features in the vocabulary that are utilised and how meaning is created to different social events, such as people, objects, and processes (Fairclough, 2003: 133). In this research, my focus is on understanding how scholars in particular prioritise certain aspects of the intersections, justify them, as well as what is included/excluded and in what ways this is done. This analysis is important given that discourses constitute and shape the subject (Fairclough, 2003). Hence, academic discourses on SRHR and climate change have then the potential to shape how these interconnections are translated into policy and programming with wide reaching implications.

Although discourse analysis provides a tool for textual analysis, it does not restrict itself to a linguistic analysis of text (Fairclough, 2003: 3). Instead, it provides a framework for social analysis that are able to

"consider bodies of texts in terms of their effects on power relations" (Fairclough, 2003: 9). Then again, discourse analysis is thus an analytical tool for examining the interconnections between language, power, and ideology (Halperin and Heath, 2012: 313). It, therefore, fits with the theoretical underpinnings of this research and the critique of the assumptions of positivist science. It also provides an excellent tool for understanding the power that academics have in shaping the meanings that are constructed for a studied phenomenon (see, e.g., Foucault, 1990). This reflection on the power dynamics behind discourses is important in this context, as it helps to understand why certain ways of thinking become dominant and how certain assumptions prevail. Indeed, different discourses have the ability to construct competing imaginaries of reality and power relations, and ultimately influence which of the discourses become dominant. This is particularly important for assessing whether the populationist narratives continue to prevail in the academic discourses on the topic.

3.4 Reflexivity and Ethical Considerations

Critical systematic reviews have recently received also widespread criticisms. According to Paré et al. (2014), critical reviews are usually either selective or representative, which limits the number of relevant literature selected for the review. For the purpose of this research, I had to selectively choose to include only certain databases. Thus, it is possible that the use of different databases could have produced slightly different findings. Similarly, different set of key words could have produced alternative findings. Acknowledging these limitations, this research aims to critically examine the literature on integrating SRHR and climate change and assess what this integration means from a postcolonial feminist perspective. As the strength of a critical review is its ability to identify controversies, inconsistencies and weaknesses in existing literature (Paré et al., 2014), critical review was an ideal method for the purpose of this study. The decision to include book chapters, editorials and comments is justified, as it recognises the issues of making strict exclusions based on, for example, methodological quality of the research.

In engaging with document-based research it is, nevertheless, critical to reflect on whether documents and written text have the power to accurately depict reality. Indeed, Bryman (2015: 560-562) explains that document-based research must recognise the inability of documents to fully depict reality, as the context in which they have been written and their intended readership may influence their content. Thus, in analysing academic research, I must recognise that the text may not fully capture reality or even the positionality of the researchers' who have written it. Particularly peer-reviewed journals that undergo rigorous review processes may have resulted in reframing, omitting or adding certain aspects of the text that, for example, would have reveal more about the author's assumptions about the topic.

From an ethics perspective, this research was conducted in line with the ethical guidelines of responsible conduct of research outlined by the Finnish National Board of Research Integrity (University of Helsinki, 2020). Consideration to good research ethics was particularly paid attention to when designing, reviewing and conducting the research to ensure transparency and quality of research (Lamont 2015: 58). As

Mama (2007) has pointed out, the ethical predispositions of a researcher is also shaped by her identity and social context. Thus, I recognise that my own assumptions, privileges as well as ontological and epistemological position shaped the decisions I made when designing this research project. As a white Northern European feminist it was particularly important to me to critically be aware of my positionality and the privileges I hold when seeking to engage with such a complex topic.

3.5 Concluding Remarks

This chapter has demonstrated the importance of reflecting on the methodological questions about what data to use, how to analyse it, and more fundamentally how to think about the relationship between data and reality. In section 3.1, I examined literature reviews and systematic reviews and demonstrated their methodological weaknesses and inappropriateness as a method for this study. Consequently, in section 3.2, I articulated the need for conducting a critical review on the topic that enables an in-depth reflection on the underlying justifications, motives and assumptions behind the academic discourses on the topic. I outlined the critical review process in detail and provided justifications for the need to practice methodological inclusivity and to understand how 'knowledge hierarchies' influence and bias knowledge production. In section 3.3, I explored discourse analysis and defended its relevance particularly for understanding how different meanings are constructed to the scholarly work on the intersections of SRHR and climate change. Then again, in section 3.4, I discussed the ethical principles and practices guiding this work. I reflected on my own positionality and the privileges I hold and how these may shape the outcomes of this study. To conclude, this chapter has provided an important framework for understanding how this study was carried out and the questions that were reflected when designing this study. These considerations are put in practice in the next section, which provides the findings of this study.

Chapter 4: Intersections of SRHR and Climate Change

This chapter presents the findings for this study. A total of 88 papers were included in the analysis, which examined how the integration of climate change and SRHR is justified discursively in academic publications (see Appendix 4). I find that, the justifications rest on six main discourses: 1) public health; 2) environment; 3) population dynamics; 4) reproductive rights; 5) sustainable development; and 6) critical discourse. Most authors in these discourses highlight the adverse consequences of climate change to sexual and reproductive health (SRH), particularly to the SRH of women and girls. In this chapter I flesh out the findings of the analysis and demonstrate that, through these discourses, authors construct the integration of SRHR and climate change as an important and desirable policy strategy.

Table 4.1 contains a summary of the findings. During the analysis process, I noticed that the different topics (left column) had interlinked and overlapping discourses that utilised common strategies in justifying the connections between different SRHR themes. This realisation lead to a more careful analysis of underlying discourses and resulted in the identification of the six discourses presented in this chapter. As the Table 4.1 demonstrates, the public health discourse was clearly the most dominant one. It was present in all of the publications addressing the connections between climate change and maternal health, which explains its dominance given the large number of sampled papers focusing on maternal health. The environment discourse was the least dominant one, as there were only four papers that were categorised under it.

Table 4.1 *Distribution of Publications in Each Discourse According to the Identified SRHR Topics*

Topic		**Discourse**					
	Frequency (n)	Public health	Environm ent	Population dynamics	Reproductive rights	Sustainable development	Critical
Maternal health	43	43	0	0	0	0	0
Family planning and contraceptives	29	1	4	11	2	5	6
Reproductive health and rights	7	2	0	1	4	0	0
Sexual and gender-based violence	5	0	0	0	4	0	1
STIs (sexual health)	1	1	0	0	0	0	0
SRHR (broad definition)	3	0	0	1	1	1	0
Total (n)	88	47	4	13	11	6	7
Total (%)	100 %	53,4 %	4,5 %	15,9 %	12,5 %	5,7 %	8,0 %
Ranking (highest to lowest)	N/A	1	6	2	3	5	4

Source: Author's Taxonomy

In this chapter, my aim is to critically examine these identified discourses and their connections with each other. I scrutinise the ways in which they rationalise establishing the connections between climate change and SRHR. This is done through an assessment of the utilised discursive strategies, such as the way in which they construct their arguments. This chapter is organised as follows: First, I analyse the public health discourse, which constructs climate change as a public health problem that among other things requires adapting health systems to better respond to climate change. Second, I assess the topic from what could be called a mitigation angle, outlined in the environment discourse. Third, I showcase how the questions of population size on a national level have become masked under the resilience discourse evidenced in the population dynamics discourse. Fourth, I discuss how gender, climate change and SRHR have become interlinked discursively through what could be called a reproductive rights discourse, which rests on the human rights and sexual and reproductive rights frameworks. Fifth, I outline a sustainable development discourse, which combines eloquently elements of the population dynamics and reproductive rights discourses and places emphasis on the effectiveness of integrated programmes. And sixth, I discuss critical reflections on the topic that emerge particularly from scholars that are aligned with the reproductive justice framework. Finally, I conclude with a summary on the findings and visualise the connections.

4.1 Strengthening Health Systems for Adaptation: Public Health Discourse

The connections between climate change and SRHR are most often constructed through a public health perspective. This discourse justifies the impacts of climate change to *health outcomes* as the main issue and a reason for analysing the connections between climate change and SRHR. In majority of the 47 papers categorised under the public health discourse the focus was on proving the connections between certain health outcome and impact, or estimated impact, of climate change. In most cases this 'proving' of connections was about demonstrating the adverse consequences of temperature increase, heat waves, changes in rainfall patterns, among other things, to maternal or reproductive health outcomes. There were also few instances in which researchers sought to prove these connections between climate change and HIV prevalence (Baker, 2020; Chersich, 2019). As evidenced in Table 4.1, the focus of these papers was often on specific maternal health outcomes. For example, a great deal of publications addressed the impacts of climate change on specific maternal health outcomes, including preterm birth (see, e.g., Carolan-Olah and Frankowska, 2014; DeNicola et al., 2019; Guo et al., 2018; Spolter et al., 2020),[15] hypertension (see, e.g., Scheelbeek et al., 2016),[16] and pre-eclampsia (see, e.g., Homer et al., 2009; Poursafa and Kelishadi, 2011). These adverse impacts of climate change on maternal and newborn health were recognised in both the Global South and the Global North.

[15] Preterm birth is the birth of an infant before 37 weeks of pregnancy (Carolan-Olah and Frankowska, 2014: 51).

[16] Hypertension means high blood pressure and it is connected to the increased risk of other heart complications, such as strokes (Scheelbeck et al., 2016).

The public health discourse could be categorised as technical, as it placed emphasis on the medical connections between climate change and SRHR. This was evidenced in the medical terms that were used, and the medical conditions that were studied, including 'rupture of membranes' (e.g., Chersich, 2019; Song et al., 2019). This technical nature could also be explained by the journals in which these papers were published, most of which were medical journals, including Obstetrics and Gynecology, Midwifery, International Journal of Environmental Research and Public Health, and Occupational and Environmental Medicine.

Public health discourse constructs climate change as a reproductive and sexual *health* problem. In majority of the publications, there was a general agreement that climate change is going to, or is likely to, adversely impact maternal health outcomes and newborn health (e.g., Homer et al., 2009; MacVicar et al., 2017; Poursafa et al., 2015) and other reproductive health outcomes, including human fertility (e.g., Cil and Cameron, 2017; Fisch et al., 2003) or the prevalence of HIV (e.g., Baker, 2020). As a consequence, the estimated impacts of climate change were discursively used to justify the importance of integrating public health and climate change policies together. For example, Baker (2020: 1) predicted the prevalence of HIV during different climate change scenarios and estimated that under a high emission scenario up to 16 million additional new cases of HIV may occur by 2050.

Many publications recognised *pregnant women* to be one of the most vulnerable groups to the adverse impacts of climate change (e.g., Rylander et al., 2013; Shashar et al., 2020). This discursive use of 'vulnerability' was used as a justification for a scholarly interest in the topic. In some of the publications, these risks were highlighted to be the worst in the Global South (e.g., Zhong et al., 2018).

> Pregnant women, the developing fetus, and young children, are considered the most sensitive members of our species and are, in addition, already marginalized in many countries. They will therefore be most **vulnerable** to the environmental effects of climate change. A number of reviews have recently addressed the issue of health effects to climate change, but there has been no analysis of maternal health, pregnancy outcome, and perinatal health effects related to climate change. (Rylander et al., 2013: 2) [bolding added for emphasis]

In this way, majority of the papers constructed a rather homogenous category of people that are the most vulnerable to climate change – *pregnant women*. A case in point is the paper by Grace et al. (2015), which lumps together the health outcomes of "women in Africa" by examining the relationship between temperature, precipitation and birth weight of women in 19 African countries, without critical reflection on the different socio-political and economic contexts within these countries that could influence these health outcomes.

Of course, there were some efforts to distinguish health inequalities *within* the group of women. In these cases, the emphasis was often based on the health inequalities between the poor and the wealthy, which was rationalised through mothers with a higher socioeconomic status being better able to cope with

the anticipated changes (e.g., Ngo and Horton, 2015). For example, a study by Shashar et al. (2020) concluded that the higher vulnerability of Bedouin-Arab mothers (compared to Jewish mothers) to develop pre-eclampsia was explained by their rural and nomadic lifestyle that prevents them from having facilities that help them to cope with higher temperatures. Thus, their research concludes that a nomadic lifestyle is one source of maternal vulnerability, but they do not reflect on the land annexation practices of the Israeli state. Although Shashar et al.'s (2020) failure to account for structural factors and historical forms of oppression was one of the sharpest ones, other papers also failed to look at the root causes of such vulnerabilities. For example, some papers that focused solely on the health outcomes of women in the Global South, explained the expected poor health outcomes to be mainly to be caused by poor health infrastructure, socio-economic factors, including poverty, and the severity and intensity of climate change in these areas. Yet, the predominant source of vulnerability on the public health discourse was biological factors, including a lowered ability of pregnant women to thermoregulate, instead of in-depth analysis of how the social context and hegemonic power imbalances influence this vulnerability.

Along with the category of 'vulnerability' some of the papers, however, connected the role of women as active 'agents' for responding to these anticipated adverse health outcomes. For example, Zhang et al. (2019: 2) note "pregnant women should be cautious of extreme heat, exposure, especially during early pregnancy". The underlying assumption is that women have the capacity to limit their exposure to heat. Zhang et al.'s (2019) study was based on USA, where arguably some women have the capacity and the socioeconomic status to do this. Yet, beyond this broad generalisation of *pregnant women* no reflection was made on the economic, social and political resources that these women may need to 'adapt'.

Despite the tendency of the papers using the public health discourse to focus on women's reproductive health and particularly maternal health outcomes, there was one instance which reflected on male fertility. In this instance, the focus was on human fertility (ability to procreate) and changes to it with an experienced change in temperatures (Fisch et al., 2003). Thus, their research focused on assessing the impacts of long-term temperature change on fertility, particularly through alterations in sperm count. In this sense, climate change was presented as a potential threat to fertility of the citizens in the 17 'industrialised' countries on which Fisch et al.'s (2003) study focused. No studies that expressed concerns about females' reproductive capacities in the future were included in the dataset.

Then again, the public health discourse also consistently made references to health services. The adverse health outcomes of climate change were used to emphasise either implicitly or explicitly the need to improve the preparedness of health systems to climate change (see, e.g., Homer et al., 2009: 6; Lin and Zhang, 2012; Rocha and Soares, 2015). For example, Rocha and Soares (2015) promoted efforts to improve public health infrastructure to ensure its effectiveness and capability to respond to adverse maternal health outcomes that are likely to increase as a consequence of climate change, including changes in rainfall patterns. Strengthening health systems was, thus, depicted as a climate adaptation strategy. This strengthening of health systems and improving their 'resilience' to shocks fits into the broader resilience

discourse that is articulated in the population dynamics discourse, presented in the section 4.3. Indeed, in this sense, the public health discourse draws parallels to questions around population dynamics, as it connects improving the population health to achieving resilience.

It is also noteworthy that some of the papers utilised their evidence on adverse reproductive health outcomes to justify climate action. In this sense, the adverse maternal health outcomes were fuelling calls to mitigate climate change (Basu et al., 2010; Spolter et al., 2020). For example, Spolter et al. (2020) state that:

> Our research highlights the need for more awareness among health professionals, policy makers and pregnant women on the potential adverse effects of temperature, even for term pregnancies, and further stresses the urgent need of climate change mitigation. (Spolter et al., 2020: 4).

Interestingly, in the papers which connected these dots between adverse health outcomes and the need curb carbon emissions, words such as 'urgent need' were used to emphasise the rapid need for action. The use of these words to emphasise the importance of the topic is closely aligned with the rhetorical devices used in the environment discourse, discussed further in the next section.

4.2 Mitigating Climate Change: Environment Discourse

The connections between humans, environmental degradation and climate change were also approached from what could be a called a mitigation angle. I choose to call this the environment discourse to also reflect on the broader environmental sustainability concerns raised in this discourse, including biodiversity conservation. The papers categorised in this environment discourse were focused on particularly justifying the links between climate change, human numbers and the unmet need for family planning. All of the papers using this discourse focused only on family planning and contraceptives, which is a narrow conceptualisation of SRHR.

A core element of the environment discourse was the emphasis on instrumentalising family planning as a climate change mitigation tool. This was rationalised through highlighting the *urgency* to respond to climate change, the role of family planning and smaller families as individual *eco-actions*, and the perceived *cost-effectiveness* of mitigating climate change through family planning. It should be noted that family planning was not supported as the only solution, but rather a solution together with other technologies to combat climate change.

The papers framed reduction in human numbers through contraceptives as one of the central benefits of integrating the issues together. For example, Jeffrey Skeer contrasts the emission reduction potential of honouring the ICPD commitment of improving access to contraceptives (UNFPA, 2004), to the emission reductions of the United States under the Kyoto Protocol (Skeer, 2002: 29). He also made predictions about the discounted lifetime CO_2 emissions that result from avoiding unplanned births:

> On an annual basis, since there are roughly 20 years of discounted emissions per lifetime, reductions in CO_2 emissions would be about 0.5 billion t by 2050, 1.5 billion t by 2100, and 2 billion t by 2150. In other words, a century from now, CO_2 emissions reductions achieved by honoring the Cairo commitment would equal the negotiated target for total greenhouse gas emissions in the United States in the first compliance period of the Kyoto Protocol (2008–2012). (Skeer, 2002: 29)

In this way, the line of reasoning contrasts the mitigating potential of contraceptives to other technological innovations. Thus, family planning was instrumentalised and scrutinised against other technological innovations in its capacity to reduce emissions, rather than as a human-rights priority on its own right.

The cost-effectiveness of family planning interventions was coupled with the *urgency* to act on climate change, which was argued to ensure that every necessary measure to reduce greenhouse gas emissions are utilised, including reducing human numbers (e.g., Guillebaud, 2016; Skeer, 2002). This rhetoric is summarised well by Guillebaud, for whom "with climate change already close to an irreversible tipping point, urgent action is needed to reduce not only our mean (carbon) footprints but also the "number of feet"—that is, the growing population either already creating large footprints or aspiring to do so" (2016: 1). The discursive use of 'urgency' as a justification for investing in family planning along with contraceptive accessibility and availability were used as discursive tools to highlight attention to the issue. Nevertheless, it is interesting to recognise that despite highlighting the urgency to act on climate change, this urgency was not translated to the language used to refer to climate change. In all of the papers the term is precisely *climate change* not, for example, 'climate crisis' or 'climate emergency'.

By emphasising the need to reduce the "the number of feet" (Guillebaud, 2016: 1), the environment discourse makes connections to the populationist arguments of 'population' as a problem. Indeed, the environment discourse could be seen as a continuation of the work of those neo-Malthusians that have vocalised the need to reduce human numbers to avoid planetary overshoot problems (e.g., Hardin, 1993; 1974). Interestingly, in the context of environment discourse the responsibility for responding to the issue was placed on individuals, rather than on national population policies. This was evidenced in the use of concepts such as 'carbon legacy' that measure the emissions of the added weight of having a child has on individual's carbon footprint (Guillebaud, 2016; Wynes and Nicholas, 2018).

In this context, it is also interesting to reflect on who is the active agent in environment discourse. In all the papers using the environment discourse the active agent seems to be a woman. This clearly applies to the work of Guillebaud (2012; 2016), who states that "simply by having one child less, an American women would reduce her "carbon legacy" (the summoned emissions of herself and her descendants weighted by relatedness) by 9441 tonnes" (2016: 2). Thus, it is clear to see that the active agent is the 'American woman' who makes the rational choice of reducing the size of her family by accessing contraceptives. Constructing women as the active agents was also visible in how the papers constructed having smaller families as individual *eco-actions* that reduce their carbon footprint. In these justifications, the assumption is that given

the chance to access modern contraceptives women would reduce their family size. This can be seen as a narrow conceptualisation of family planning, as merely a way to prevent births rather than to address broader questions on fertility.

Looking at the language of 'eco-action' more carefully, it appears that it was constructed as a choice for women in the Global North. Indeed, Guillebaud (2016) frames it as a choice for 'American women'. This is justified in the literature by the larger carbon footprint of children in the Global North. Conversely, this finding could also be explained by the *agency* associated with the eco-action narrative. Indeed, in this instance a woman in the Global North that chooses to have one child less is constructed as an active agent, empowered by her decision to do mitigate climate change. Interestingly, the geographic focus on women in the Global North in this instance, is in contradiction with the discourse on smaller families as a climate change adaptation strategy that appears to be constructed as a responsibility for women in the Global South. This is discussed more in detail the following section, where the focus is on this resilience discourse.

4.3 Resilience through a Reduction in Human Numbers: Population Dynamics Discourse

The connection between 'population' problem, SRHR and climate resilience is best outlined in the papers that were categorised as representing, what could be called, a population dynamics discourse. This discourse was the second most popular discourse, and in it a central connection was made between demographic change, climate change, environmental sustainability, and national development among other things. In this discourse there existed a sharp contrast between a 'resilient' society, in which population growth is managed through effective population policy, and 'vulnerability' caused by high population growth. This rhetoric was clearly evidenced in the statement by Bongaarts and Sitruk-Ware (2019):

> In 2100, our planet is expected to be home to 10.9 billion people, up from today's 7.7 billion. This expansion of humanity will take place mostly in sub-Saharan Africa and South Asia. **Rapid population growth has pervasive adverse effects** on societies, economies and the natural environment. In particular, with an additional 3 billion people producing greenhouse gases, the global warming problem will become even more intractable in the coming decades. (Bongaarts and Sitruk-Ware, 2019: 233) [bolding added for emphasis]

A central element of the population dynamics discourse is the way in which it instrumentalises investments in reproductive health, primarily family planning, to reduce population pressures contributing to both greenhouse gas emissions and 'climate vulnerabilities' (Bongaart and O'Neill, 2018). In this way, family planning and other investments in reproductive health are viewed as tools for population policy. In this context, it is critical to reflect on how the emphasis is placed on the word 'voluntary'. It is precisely investments in 'voluntary' family planning that are constructed as effective tools for responding to the unmet need for family planning, while simultaneously reducing the population pressures contributing to climate change. This attention to the word 'voluntary' could be seen to as a tool to distance the current conversations

from the past abusive policies and practices of fertility control. In fact, in some papers this distancing went as far as to state the current conversations are only about the adaptation, not about connections between population and greenhouse gas emissions. For example, Bryant et al. (2009: 852) state that "we stress the distinction between this approach, which prioritises the welfare of poor communities affected by climate change, and the argument that population growth should be slowed to limit increases in global carbon emissions". Yet, in the absence of in-depth reflection on these past abuses along with the continued emphasis on 'population' as a source of the problem, it is not clear from these papers, how in practice this separation is carried out.

Moreover, the populationist discourse tended to construct population as a source of climate vulnerability, mainly on a national and community level (Bryant et al., 2009; Hardee and Mutunga, 2009). This is in contrast to adaptation as a source of individual resilience and 'empowerment', which are discussed in the next section (section 4.4) on reproductive rights discourse. Improving the adaptive capacity was here linked with reducing these population pressures – to which family planning was suggested to provide a solution to. Indeed, voluntary family planning was argued to act as a climate change adaptation tool on a societal level and reduce the vulnerability of populations to the predicted impacts of climate change. Reducing population pressures was suggested to free national resources to other areas, which could support the collective efforts to adapt to climate change. It was also recognised that population pressure itself impedes adaptation efforts. This is perhaps best evidenced in the papers that address the connections between family planning and the National Adaptation Programmes of Action (NAPAs), which are national adaptation plans specifically for the countries in the Global South (Hardee and Mutunga, 2009; Mutunga and Hardee, 2010). Yet, others such as Rovin et al. (2013) also recognised the connections between governmental efforts to reduce population pressures and longer-term climate change adaptation strategies.

In this context, it is noteworthy to critically assess the context in which the benefits of reducing population pressures are constructed. For example, Potts and Henderson state that "slowing rapid population growth is a prerequisite to allow countries vulnerable to climate change to develop appropriate adaptive policies" (2012: 567). This hints that the adaptive benefits are particularly seen for 'vulnerable countries'. The examination of other papers proves that investments in reproductive health were constructed as climate change adaptation strategies particularly in areas that were characterised with high fertility and as such constructed as 'vulnerable' to climate change. Indeed, population growth in high fertility areas, mainly in the Global South, was constructed as a problem that makes populations in these areas vulnerable to climate change. Implicit assumption here is that improved access and availability of family planning methods is expected to decrease the population pressure and improve collective adaptive capacity. This was linked to the idea that reducing population pressures will free resources for adaptation, including investments in education and health (Bongaarts and O'Neill, 2018).

A commonality between the population dynamics and the environment discourse is their use of 'alarmist' words to emphasise the importance and urgency to address these intersections. As stated, this was

also evidenced in some papers in the public health discourse. In the context of population dynamics discourse, this alarmist tone highlighted particularly the connections between population growth and various negative outcomes, including environmental degradation. This was demonstrated by Potts and Henderson, for whom:

> The collision between global warming and rapid population growth has the potential to initiate a **major humanitarian disaster** in which women and children will be the most affected. (Potts and Henderson, 2012: S64) [bolding added for emphasis]

Despite the emphasis on 'voluntary' family planning and its connections with reducing population pressures, the papers included in the population dynamics discourse do engage in the conversation between population increase and environmental degradation in a way that constructs 'population' as a source of a problem. This can be argued to have direct links to the neo-Malthusian thinking and linking population and environmental degradation. Indeed, addressing unmet need for family planning through investments in voluntary family planning were recognised as a strategy to reduce the human pressure on Earth. This was evidenced in the language of Hardee (2014), who stated that:

> Reproductive health, a good in its own right, helps women control their own fertility and is hypothesized to strengthen their ability to cope with changes in climate – for themselves and their families. Reproductive health, to the extent that access to family planning is expanded and women choose to have fewer children, is linked to climate change mitigation through affecting fertility rates. Micro fertility decisions add up to macro populations. (Hardee, 2014: 178)

This was further evidenced in the reductionist way in which some scholars engaging in this discourse simplify the complex connections between human reproduction and planetary processes. This reductionism was visible particularly in the words of Short (2009: 28), for whom "if we could contain human population growth in the years to come, we could call a halt global warming. And all it would take is a **simple pill**, the oral contraceptive pill" (bolding added for emphasis). In this way a connection was made between reproductive technologies (oral contraceptives) and climate change mitigation.

4.4 Gender Equality and the Right to Choose: Reproductive Rights Discourse

The reproductive rights discourse is characterised best by its emphasis on gender equality and the right of women to choose the number and timing of children. The discourse establishes its legitimacy by making links to both human rights, as well as sexual and reproductive rights' frameworks. In doing so, it can be seen to be closely aligned with the 'ICPD promise', meaning it highlights the importance of approaching SRHR from a

human-rights based perspective (Hardee, 2009; Hardee, 2014).[17] Thus, it places the sexual and reproductive rights of individuals to the centre of analysis and highlights the need for rights-based responses to climate change that result also in the full realisation of individuals' sexual and reproductive health and rights. The central assumption in the reproductive rights discourse is that if given access to contraceptive services, women would choose to have fewer children.

The reproductive rights discourse constructs the connections between climate change and SRHR, particularly through voluntary family planning as a climate change adaptation tool. Indeed, family planning was constructed as a healthy *choice* for women, which simultaneously *empowers* women to become more adaptive to anticipated climate change (Hardee, 2014; Rezwana and Pain, 2020). Investing in family planning was argued to improve women's ability to space and choose the timing of their children, which is generally associated with positive impacts on their health. Improving the health of women was then linked positively with adaptive capacity and resilience (Hardee et al., 2018). Indeed, many publications identified the strategy of empowering women through investments in family planning as a climate adaptation strategy. However, besides gender inequalities other matters that could influence women's ability to *choose* were not sufficiently addressed, including race, gender identity, sexual orientation or disability.

Then again, the benefits of family planning to women's adaptive capacity was also framed through increased self-efficacy of women. Thus, it was assumed that investments in family planning and sexual and reproductive health and rights of women are important for making women more adaptable to the impacts of changing climate. Similarly, improved family planning was argued to free families' resources to adapt to climate change (Hardee, 2014). The benefits were thus constructed on a more household level to improve the adaptive capacity of families to the anticipated impacts of climate change. Indeed, it was argued that smaller families increase the resilience of households to change since they may have better resources to adapt and to respond to these changes.

The connections between family planning and climate change adaptation were discursively constructed through the utility of family planning. Thus, family planning was both implicitly and explicitly framed as a tool for 'empowering' women, families and the nation to adapt to climate change. It was conceptualised as a vehicle for making women more adaptable to the predicted impacts of climate change. Interestingly, when family planning was connected to empowering women and increasing their adaptive capacity and resilience to climate change, the focus was on the women in the Global South. Indeed, all of the papers that were primarily focusing on climate change adaptation had a focus on countries in the Global South, primarily in the sub-Saharan Africa. Countries of focus included Ethiopia, Madagascar and Tanzania, with few of the papers focusing more broadly on the countries in the Global South. Few papers that did not have a specific geographic focus did, however, made references to the issue in 'high fertility areas' (e.g., Potts

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[17] The language of *ICPD promise* has been used actively by many reproductive rights organisations to make a reference to meeting the Programme of Action of the 1994 Conference on Population and Development (ICPD). In particular, UNFPA utilised this language during 2019, which was the 25th anniversary year of the ICPD (UNFPA, 2019b).

and Henderson, 2012), and in this way, implied a focus on the Global South. This suggests that the benefits of family planning to climate change adaptation are primarily constructed advantageous to individuals in the Global South, primarily in the sub-Saharan Africa.

One of the benefits of connecting the dots between reproductive health and climate change was clearly funding or placing family planning and reproductive health 'back on the agenda'. In this sense, integration of climate change and SRHR was justified as an advocacy tool for gaining interest, and potentially funding for the SRHR, or more specifically the family planning community. Thus, using the 'climate angle' was seen as a potential push for greater support for voluntary family planning (e.g., Petroni, 2009: 281). For example, Hardee's (2014) book chapter assessed in detail the opportunities and challenges for allowing reproductive health organisations to assess climate finance instruments. Thus, connecting climate change and SRHR discursively was also seen to benefit the family planning community by bringing renewed interest in its work.

The interconnections between climate change and reproductive health were also justified through the impacts of climate change on individual fertility decisions and reproductive behaviour. Indeed, adjusting fertility decisions, including altering preferences on family size were argued to serve as climate change adaptation and coping strategies. For example, Eissler et al. (2019) argued that changing preferences in the number of children allows vulnerable families to reduce pressures that climate change is predicted to create. In this context, the focus was on the ideal family size of *women* (Eissler et al., 2019). Thus, the responsibility of household adaptation was framed as a women's responsibility. Indeed, Eissler et al. (2019) argue that for women to be able to realise these goals, policy-makers should ensure that women have access to contraceptives. This was a recurring conceptualisation in the reproductive rights discourse, as emphasis was constantly placed on 'empowering women' to be adaptive to climate change.

Then again, it was argued by papers in this reproductive right discourse that climate change is likely to increase the incidence of gender-based violence (GBV) and other harmful practices.[18] This is where the reproductive rights discourse differentiates from other discourses, as it conceptualises SRHR beyond maternal health and family planning, by connecting it to questions about bodily autonomy. Thus, it was argued that the gender-based violence is expected to increase during and after sudden-onset disasters as a result of climate change. For example, Rezwana and Pain (2020) argued that cyclones lead both directly and indirectly to GBV. There were also efforts to conceptualise the interlinkages of compounding vulnerabilities, such as gender inequalities and poverty and how these intersectionalities may increase the vulnerability to gender-based violence. However, this examination did not go beyond marital status, gender and economic status. Conversely, it was also recognised that these interconnections work the other way around. Gender-

[18] Gender-based violence has been defined as "an umbrella term for any harmful activity that is perpetrated against a person's will and that is based on socially ascribed (i.e. gender) differences between male and female" (Inter-Agency Standing Committee, 2015: 5).

based violence reinforce existing gender inequalities and increase poverty, making women more vulnerable to disasters (Rezwana and Pain, 2020).

Lastly, the reproductive rights discourse utilised an ethical justification for the righteousness of the discourse. Integrating family planning and climate change through the adaptation perspective was justified to be a more ethical way forward given the legacy of population control policies (e.g., Petroni, 2009: 282). Bryant et al. (2009) summarise this view by stating that "it is perhaps more conducive to a rights-based approach to implement family planning programmes in response to the welfare needs of people and communities rather than in response to international concern for global overpopulation" (2009: 853). This can be seen similar to the emphasis on 'voluntary' in the population dynamics discourse. Here the focus was nevertheless more on the human rights.

4.5 The Ultimate Win-Win: Sustainable Development Discourse

The sustainable development discourse is closely aligned with the reproductive rights discourse. Papers highlighted in it focused on the benefits of combining climate change mitigation efforts with investments in SRHR, arguing that creating such synergies supports the achievement of both, and is aligned with the SDGs and the overall development of nations. All except for one paper characterised using sustainable development discourse conceptualised SRHR through a narrow focus on family planning. According to this line of argument investing in family planning helps to reduce population pressures and contribute to the overall wellbeing of countries. The sustainable development discourse could also be characterised as a win-win discourse and it was mainly visible, when discussing the connections between family planning, contraceptives and climate change, and the benefits that demonstrating these linkages have for advancing both agendas.

The sustainable development discourse was depicted best in the publications that demonstrated how family planning can be utilised as a tool for improving human health and environmental degradation simultaneously. Investing in family planning was thus argued to advance both climate change adaptation and mitigation goals, while the integration of family planning with the climate change agenda was suggested to provide renewed attention to the SRHR community and simultaneously reduce siloes in policy and programming. Indeed, in most of the sampled papers integration was viewed not only through mitigation or adaptation lenses but instead as an ultimate win-win solution benefitting both (Stephenson et al., 2010). Thus, investments in family planning were seen to bring benefits for SRHR, which is an important human rights issue, but also at the same time contribute to improved climate change adaptation and mitigation. Yet, what was not addressed in these papers was how conflicting goals should be reconciled, or how do the past abusive population control policies influence the mitigation arguments.

Based on the papers included in this research the essence of the sustainable development discourse can be summarised as:

> Increased investment in family planning is urgently needed for achievement of both development and climate change goals. Family planning offers a unique solution among medical interventions. It reduces poverty, and maternal and child mortality; increases primary schooling, and women's education and empowerment; increases environmental sustainability and mitigates the effects of climate change through stabilisation of global populations." (Stephenson et al., 2010: 155)

Then again, the discourse on family planning as a win-win solution to climate change and SRHR matters, tended to emphasise the benefits of integrating environmental and population concerns. Integrated programming was argued to reduce the barriers for family planning and result in higher uptake of contraceptives. For example, in his paper on resilience and integrated development De Souza argued that:

> Capitalizing on opportunities to integrate family planning into resilience programming, through integrated programmes such as those combining population, health and environment, offers an opportunity to package together a number of long-term, resilience-based solutions, increasing the effectiveness of each approach. (De Souza, 2014: 81)

The sustainable development discourse placed great emphasis on words such as 'integrated'. On a programmatic level, the sustainable development discourse was demonstrated to be visible in the PHE programmes that have become a practical programmatic approach for *integrating* population, health and environmental issues. These multisectoral approaches that create synergies between sectors were aligned with the Agenda 2030. Hardee et al. (2018), for example, emphasised that in PHE multisectoral programme conducted in Tanzania, there was a positive association between family planning, access to maternal and child health (MCH) care and resilience.

4.6 Critical Discourse

Besides the other discourses that tend to construct establishing intersections between climate change and SRHR as positive, benefitting either one or the other, or both, the findings suggest that there are also critical voices engaging with the topic. These critical reflections were only evidenced, when the focus was on family planning, contraceptives, and gender-based violence and climate change. This suggests that these are the topics, where the greatest controversies lay. The critical reflections on the integration utilised primarily three different arguments: integration currently ignores structural issues, including unequal power structures, demonstrates ecofascist and racist tones, and are neo-colonial. These different justifications were not exclusive but rather they were utilised simultaneously in the different papers. Combined with the critical reflection on the integration there were few papers that discussed a more justice-based framework for integration.

A great deal of the critical reflection on the integration raised the omittance of structural reflections in the current approaches to establishing the intersections. The failure to recognise the structural issues and

the reliance on neo-Malthusian rhetoric was consequently raised as a major criticism by many authors (e.g., Wilson, 2017; Dyett and Thomas, 2019; Hartmann, 2014; Sasser, 2014a; Sasser, 2018). The negligence of structural dimensions was argued to draw links between family planning and climate change mitigation – failing to recognise the role of overconsumption as the main driving force behind climate change. In doing so, these critical reflections pointed out to the flaws and dangers of emphasising on family planning as a climate change mitigation strategy. Indeed, according to them the discourse often fails to interrogate the hegemonic power structures that are the prime cause of the ongoing crisis (Dyett and Thomas, 2019).

The failure to recognise the root causes contributing to climate change and how omitting the structural power imbalance results in racist, ecofascist policies was mentioned in several papers included in the critical discourse (e.g., Wilson, 2017; Hartmann, 2014; Dyett and Thomas, 2019). For example, Wilson criticised how the discourse on integration has marginalised questions of race and racial relations of power (2017: 437). Some authors brought up the racial implications of population control policies, including the sterilisation of women of colour and those living with mental health illnesses (Brown and Chor, 2017). This was demonstrated in Wilson's words:

> Contemporary population policies represent more than a discursive smokescreen for the destructive impacts of global capital accumulation – they are in fact deeply enmeshed in strategies for its expansion. As such, they rely on upon embodied coercion and violence which is racialized and gendered, even as they invoke narratives of reproductive rights and choices. (Wilson, 2017: 433)

In this sense, scholars engaging in the critical discourse were unafraid to speak about the elephant in the room in the other discourses – the past reproductive rights abuses and policies of population control.

Even the effectiveness of family planning as a tool to mitigate climate change was questioned. For example, Pedersen and Lam (2018) challenged the legitimacy of the 'one fewer child' argument, demonstrating that among other things consumption, and not per se the number of people, is the main problem contributing to climate change. Interestingly they also criticised the focus on individual actions such as having one child less compared to more structural changes in society. Indeed, in the papers included in the analysis the focus on family planning as a climate change mitigation strategy was constructed as a *distraction* from the driving forces of emissions – consumption in the Global North. In many occasions the problems with integrating climate change and family planning become the discursive epitome of neo-colonialism. This is demonstrated with the Dyett and Thomas (2019) for whom:

> These acts of kindness, attempting to provide health care for all. The institutions that are funding and backing policies like this are perpetuating (neo)colonial genocide, further reinforcing the ideas of white supremacy and western hegemony through the intentional act of killing cultures that are providing alternatives. The **goal here is clearly not to empower women** through access to reproductive healthcare, **but rather to suppress certain populations birth rates**. (Dyett and Thomas, 2019: 215) [emphasis added]

It is evident that Dyett and Thomas's (2019), among others, construct the integration of family planning and climate change problematic given that it shifts away blame from the real culprits.

In general, these critical reflections tended to be suspicious of the *win-win* capabilities of integrating climate change and family planning policies. In this way, the critical reflection could be seen in a juxtaposition with the rhetoric outlined in the sustainable development discourse. For example, Hartmann (2014: 772) critiqued this evidently by using words such as 'magically' to highlight the difficulties in achieving these win-win aims.

> The overpopulated continent that can be contained and/or saved by reducing women's fertility, magically reducing vulnerability to climate change at the same time. (Hartmann, 2014: 772)

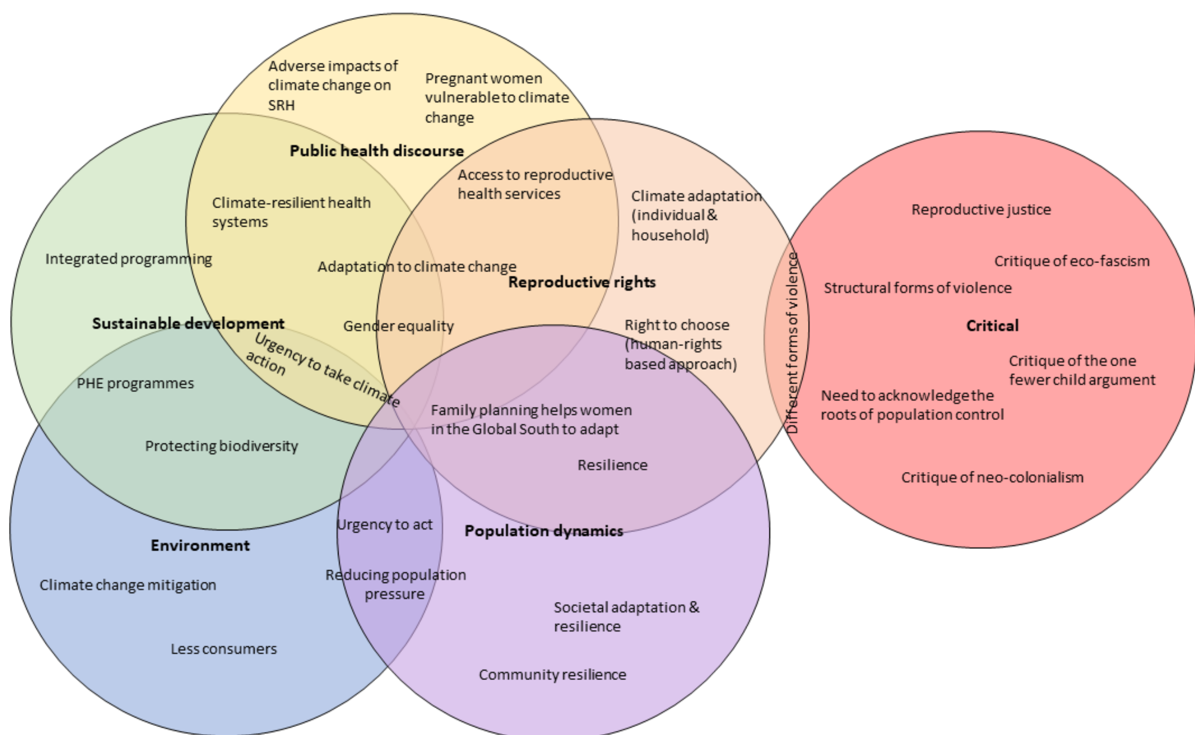
Simultaneously, the discourse that Hartmann (2014) and others (e.g., Sasser, 2014) utilised, shed light to the challenges with continued populationist narratives in the integration of family planning and climate change. Their critical reflection demonstrated how family planning, particularly in reference to its connections with climate change, was constructed in popular discussion through its *utility*, not necessarily as an end goal, or a central human rights priority. Yet, despite the controversies in discussing these connections, even the authors behind these critical reflections recognised the need to discuss these intersections and continuing these conversations. Indeed, Pedersen and Lam (2018) raise justifiably an important point that treating the topic as a taboo, serves the danger of polarising discourses.

The critical discourse has, however, on component that intersects to an extent with the reproductive rights discourse. That is how the critical discourse constructs gender-based violence in the context of climate change, as a symptom of multiple forms of violence. For example, Tanyag (2018) highlighted how bodily autonomy and questions around sexual rights in disasters settings are highly embedded in structural forms of violence and inequalities. Interestingly Tanyag (2018) also provided a compelling critique to the resilience discourse of the population dynamics discourse, arguing it to be neoliberal project that shifts focus away from the structural roots of vulnerability during climate related disasters. Indeed, the critical discourse raised the need to look for approaches that consider the root causes of vulnerability and gendered injustices caused by climate change. For example, Wonders (2018) argued that the connections between climate change and gender inequalities call for an integration of climate justice and gender justice. This includes improving inclusive decision-making processes, as gendered vulnerability is inextricably linked with access to resources. All in all, the more critical papers included in this research tended to point out to the structural issues that are often omitted in the justifications for the integration. Yet, despite this there was a recognition that these topics are important to address, albeit in a better way.

4.7 Summary of the Findings

The aim of this thesis was to understand how the interconnections between climate change and SRHR are explained in academic literature. The most common way to do this was through a public health discourse, which highlights the adverse consequences that climate change is expected to have on realising sexual and reproductive health, primarily maternal health outcomes. The second most common was the population dynamics discourse that instrumentalises investments in SRHR as tools for climate resilient and societal adaptation. Third, reproductive rights discourses justifies the interconnections by highlighting the gendered impacts of climate change but also how empowering women through SRHR improves their adaptive capacity to climate change. Fourth, the critical discourse demonstrate the problematic nature of current discourses, and suggests that interconnections exist in the systems level, and that gender inequalities, climate change and reproductive injustice are all part of the same oppressive systems. Fifth, the sustainable development discourse depicts the intersections as a 'win-win' solution that benefits the achievement of both: responding to climate change and improving the realisation of SRHR. Sixth, the environment discourse articulates investments in SRHR as necessary tools for responding to the climate crisis, particularly given its urgency. The findings are visualised in Figure 4.1.

Figure 4.1 *Visualisation of the Connections Between the Identified Discourses.*



Source: Author's Analysis

The Figure 4.1 demonstrates that the discourses have overlapping themes and intersections but also unique features and justifications to each of them. The critical discourse is distinctively different to the other discourses as it provides a critique of the current approaches to establishing intersection in the first place. Importantly, the Figure 4.1 demonstrates the similarities between these discourses. For example, reproductive rights and population dynamics discourses both discuss the intersections through resilience (overlapping circles). However, the population dynamics discourse focuses on resilience from a broader perspective, including national and community level adaptation. Then again, in the reproductive rights discourse there was a greater emphasis on individual adaptation that also has implications to the household level adaptation and 'empowering individuals' to respond to climate change. In the next chapter, I turn towards examining the implications of these findings and what could be learned from these discourses.

4.8 Concluding Remarks

This chapter has presented findings to the questions of how the integration of climate change and SRHR is justified discursively in academic publications. It has argued that six main discourses can be identified from the dataset that consisted of 88 academic publications. These findings are important as they demonstrated the different ways in which these intersections are justified and on what grounds. These discourses are: 1) public health; 2) environment; 3) population dynamics; 4) reproductive rights; 5) sustainable development; and 6) critical discourse. In this chapter, I have examined each of these discourses in detail, and assessed their main arguments and assumptions. Consequently, in section 4.1, I discussed the public health discourses and how it justifies the intersections between SRHR and climate change through health outcomes. I critically reflected on the universalising discourses of women that were applied in the public health discourse. In section 4.2, I assessed the environment discourse and the mitigation angle it uses for justifying these intersections. I demonstrated how it places emphasis on individual actions to respond to climate change and how it contrasts contraceptives with other climate change mitigation technologies. In section 4.3, I analysed the population dynamics discourse that justifies the connections through the perceived intersection of fertility reduction and climate change resilience, mainly on a national and community level. I showed how its focus on reducing fertility in the Global South suggests a reliance on neo-Malthusian rhetoric.

Then again, in section 4.4, I explored the reproductive rights discourse, which justifies the connections between climate change and SRHR through the 'empowering potential' that family planning has for women, particularly in the context of Global South. Yet, I also demonstrated how these discourses tend to overlook intersecting forms of oppression that go beyond gender inequalities. In section 4.5, I focused on the sustainable development discourse that constructs the intersections of SRHR and climate change as beneficial for advancing both agendas simultaneously, while remaining quiet about the past abusive policies. Then again, in section 4.6, I reviewed the critical discourse, which is the only discourse that was critical and wary of the connections. I noted the strength of the critical discourse, by showing its ability to assess the unequal power relations that shape the intersections of climate change and SRHR. Lastly, in section 4.7 I have

summarised the findings and visualised these connections. To conclude, this chapter has provided a response to the main research questions of how the intersections between climate change and SRHR are justified in academic publications. In the next chapter, I direct the attention towards the implications of these findings.

Chapter 5: Discussion

This thesis aims to answer the question of how the integration of climate change and SRHR is discursively justified in academic publications. The findings indicate that there are six main discourses that justify these connections. In this chapter, I place these findings into the broader context and discuss the implications of these findings against the theoretical backbone of this study. Indeed, the aim of this chapter is to respond to the second research question: **What are the implications of the ways in which these interconnections are justified?** I argue that the justifications imply that discourses on SRHR and climate change do not pay sufficiently attention to the intersectionalities of vulnerabilities. Additionally, I show how the current discourses on climate change and SRHR continue to rely on populationist assumptions and overlook hegemonic power relations and inequalities that shape these discourses. I also demonstrate how the reliance on choice rhetoric and individualism is a manifestation of neoliberal development discourses. I discuss how these issues could be addressed in the future, by applying a more justice-based framework of analysis that is centred on sustainability, equity and justice.

To do this, this chapter is organised as follows: First, I discuss how the current discourses, much like liberal feminism, fail to approach SRHR from an intersectional perspective. This implies that the scholarship on SRHR and climate change is currently based on generalisations and would benefit in the future from greater emphasis on intersectionalities of different inequalities. Second, I discuss the apparent connection between the findings, in the populationist discourse in particular, and modernisation and neo-Malthusian assumptions about population growth, development and environmental degradation. This implies, as I argue, that discourses on climate change and SRHR still rely on neo-Malthusian narratives despite its coercive history and neo-colonial tone. Third, I discuss how hegemonic power relations shape these discourses and influence the intersections in general. Finally, I conclude by exploring the limitations of this study and make suggestion for future research.

5.1 The Feminist Challenge: *Rights* and *Freedom* During the Climate Crisis

The findings suggest that the discourses on climate change and SRHR are gendered and centred on *women's* experiences. This is most visible in the ways in which the discourses highlight the *vulnerability* of women to climate change. For example, the central connection between SRHR and climate change in the public health discourse was the vulnerability of pregnant women to climate change. Similar rhetoric was applied strongly

in the reproductive rights discourse, in which poor reproductive health and absence of reproductive rights were seen as eroding individuals' agency to respond and adapt to anticipated changes. While it is important to recognise how gender inequalities and patriarchal structures contribute to women's vulnerability to climate change, it is equally important to recognise the implications that constructing women as a homogenous group in this way has. Indeed, as Mohanty (1988) has particularly articulated that such universalising discourses of women's shared experiences reduce and suppress historical heterogeneities into arbitrary categories (see also Spivak, 1988). More fundamentally, they fail to capture the lived realities within and across this 'category'. For example, evidence shows that maternal mortality and maternal health complications are often higher with women who are racially marginalised, due to social injustice, colonialism and racism (Johnson, 2014). Hence, the findings imply that the scholarship on intersections between SRHR and climate change is lacking intersectional analysis that would recognise how different forms of oppression influence vulnerability to climate change. Such analysis is also critical as Oosterhoff et al. (2020) point out that changing gender norms that influence women's vulnerability require this intersectionality to engage with men and boys, LGBTQI+ people and persons with disabilities.

Conversely, the current academic discourses on the topic demonstrate that not only is women's vulnerability heightened in connection to climate change, so is their role in responding to it. Although such approaches place important emphasis on agency, they can also be seen as problematic, if they do not pay attention to the embodied responsibility (see, e.g., Bhatia et al., 2019) or concerns about equity and justice. Indeed, my findings support previous scholarship that has shown that particularly 'women in the Global South' are often discursively framed as crucial agents in responding to climate change (Sasser, 2014a; Sasser, 2019). This can be connected to embodied responsibility of women to act and care for the environment (Bhatia et al., 2019), but it could also be seen as a continuation of women's care work. Importantly, most scholars (although not all) recognise the ethical dilemmas in suggesting that women in the Global South should reduce their fertility to mitigate climate change, given that they have not contributed to the problem in the extent of consumers in the Global North. However, placing this responsibility of climate change adaptation to these populations do not seem the raise similar ethical dilemmas to the same scholars.

This could be a result of the ways in which the discourses (except the critical) rely on neoliberal individualism and individual actions in justifying the connections between SRHR and climate change (see also Schultz, 2010). For example, in the population dynamics discourse with statements like "micro fertility decisions add up to macro fertility decisions" (Hardee, 2014: 178), a connection was made between individual action and the resilience of a nation. Then again, in the reproductive rights and sustainable development discourse, it was these individual fertility decisions that were argued to help individuals and communities to adapt to climate change. This emphasis on individual actions and responsibilities was, however, critiqued by the scholars in the critical discourse (e.g., Dyett and Thomas, 2019), for whom it is important to focus on the structural issues that shape the connections between SRHR and climate change. Indeed, they criticise this strongly for its neoliberal focus on individual actions (e.g., Wonders, 2018), and as such for failing to see the

broader social context. Such challenges have also been evidenced in the WID approaches (Rathgeber, 1990; Sasser, 2018), and in the Western liberal feminist rhetoric on choice (Gaard, 2010).

The findings also imply that particularly the reproductive rights discourse emphasises strongly the rights of individuals to make *choices* about their reproduction. The analysis, however, suggests that the emphasis on choice is not value-free. Instead, in connection to climate change the *choice* implies that the 'correct' choice is to have less children either as climate change adaptation tool (reproductive rights, population dynamics, sustainable development) or in an effort to mitigate climate change (environment discourse). In this way, the discourses imply an emphasis on individual choice and individuality, while at the same time implying the virtuousness and righteousness of certain choices. Earlier works of reproductive justice scholars have criticised such language for its neoliberal rationale that overlooks the precise barriers that limit individuals' reproductive freedom to make such decisions (Silliman et al., 2016; Solinger, 2008).

A connection between the findings and feminist scholarship is also clear. Particularly the reproductive rights discourse utilises arguments that draw parallels to feminist writings on reproductive choice. Indeed, all of the papers that focused on questions related to reproductive rights, including family planning, made clear emphasis on voluntary, rights-based approaches to family planning as opposed to previous policies relying on coercion and control. In this way, the emphasis was placed on the reproductive *choice* of women. Whilst this is a critical step for ensuring the rights and freedoms of individuals, it is crucial to questions whether these approaches go deep enough to transform social relations? Indeed, transforming these social relations, as many others have argued (e.g., Collins, 2000; Crenshaw, 1991; Silliman et al., 2016), would require recognising the intersections of oppression, and in the context of SRHR and climate change, understanding how the past abusive policies of reproductive control still influence marginalised populations today. This is where the current academic discourses on the topic do not seem to go far enough. Indeed, there is a recognition in all of the discourses on 'women's vulnerability', but besides the critical discourse there is a little reflection on how components other than gender influence these vulnerabilities. Analysis of the interconnections between class, gender, race, gender identity, sexual orientation, and disability, and how they influence the experiences of people on the ground (e.g., Collins, 2000; Crenshaw, 1991; Taylor, 1999) are conspicuously absent. Similarly, in this context it would be important to understand how these intersectionalities differ in age groups, given that it is well recognised in the SRHR literature that adolescents often face greater barriers to SRHR (Starrs et al., 2018).

5.2 Breaking Away from Malthusian Legacy: An Impossible Quest?

In line with the hypothesis, the finding suggest that discourses on SRHR and climate change rely heavily on neo-Malthusian rationality on population, with limited acknowledgements to the past abusive policies of population control. Hence, the findings support the work of other scholars who have demonstrated that populationism is not part of a troubled past but alive and well still today (Hendrixson, 2018; Hendrixson et al., 2019). Indeed, it was particularly visible in the population dynamics and environment discourses, but also

some of its justifications are utilised in public health and sustainable development discourses. Populationism in the discourses is particularly visible in the way in which connection between family planning, population size and environmental degradation were constructed, and what was perceived to be the root causes for establishing these connections.

The way in which these populationist claims are made, particularly in the population dynamics discourse, is closely linked to the modernisation theory on development that establishes connections between declining birth rate, economic prosperity and 'development' in effort to limit environmental degradation. For example, Bongaarts and O'Neill (2018: 651) explicitly stated that "family planning programmes are one of the most cost-effective health and development investments for governments". Yet, it is not only family planning that is connected to reduction in fertility, similarly investments in maternal health were seen as efforts for reducing the population growth of a country. Here context is integral. In the population dynamics discourse the focus was predominantly on the countries in the Global South, suggesting that the problem and its links with the climate resilience is an advantage of 'modernisation'. Indeed, it implies that climate resilience of countries in the Global South is connected to their 'development', including the demographic transition of countries in the Global North. This is problematic, as it fails to recognise the historical processes of development and underdevelopment (Escobar, 1995; Frank, 1967), but also in that it implies that the Western-based development model is something to aspire to. This is problematic and neo-colonial, when it is recognised that the 'modernisation' of the Global North has ultimately been unsustainable one and led to the current climate and biodiversity crisis.

Understanding this connection that authors particularly in the population dynamics discourse make is important, as it helps to understand the underlying dynamics behind the discourse. It also has potentially important implications for policy and practice, as it opens up questions about ensuring that the rights and reproductive freedoms are being honoured, when reproduction is discursively connected with climate change. Hence, it raises questions about whether respecting the sexual and reproductive rights of each and every one is compatible with goals about reducing human numbers? And in these instances where the population policies are implemented, who gets to choose the demographic goals, and whose interests do their serve? The findings of this study suggest that the connection is arguably made to reduce fertility, which is seen as a beneficial for economic development and 'resilience' of nations. Consequently, when the effort is to reduce fertility, no matter for what end goal, it is questionable whether other issues, such as reproductive freedom matter. Indeed, Hendrixson (2018: 801) has stated that "when fertility control remains the primary goal of SRHR services, all other aspects are secondary".

The perseverance of populationism is further evidenced in the determinist and alarmist tones utilised in the population dynamics and environment discourses around the urgency to act to mitigate climate change or to slow population growth. In some senses it is understandable given that addressing climate change requires urgent action. Yet, the problem comes when these reflections are being made without recognition on the true impacts that they have to the people who do not have the power to engage in these

conversations. Questions of sustainability from whom and on whose terms are then left out of analysis. Considering that the association of population growth is on the populations in the Global South, this line of reasoning needs to be carefully and critically examined against the backdrop of colonial legacies. Indeed, Michelle Murphy (2017: 135) has demonstrated that the word ‘population’ translates into a “managerial gaze”, which is far from being objective, and can easily serve the purpose of optimising the lives and deaths of people based on racial lines.

5.3 Towards Justice-Based Approaches to SRHR and Climate Change?

Discourses on sex, sexuality and reproduction are deeply embedded in questions of power (Foucault, 1990). Indeed, through science, modernisation and capitalism, sex and reproduction of particularly women has historically been controlled in a myriad of ways (Bhatia et al., 2019; Foster, 2014; Sasser, 2018: 23). Similarly, the findings of this research suggest that women’s fertility continue to be problematised as a source of vulnerability either for the women themselves (reproductive rights discourse) or for the resilience of the state (population dynamics, environment and sustainable development discourses). Investments in SRHR, particularly in maternal health and reproductive rights through family planning, are in this light instrumentalised as tools for tackling climate change.

Yet, what is conspicuously absent in the academic discourses, is a critical analysis on the colonial roots of climate change and how global inequalities influence and contribute to these dynamics. Such reflection, beyond making disclaimers about the carbon footprint sizes in the Global North vs. the Global South, were only visible in the seven papers categorised using the critical discourse. Indeed, from a perspective of just sustainabilities (Agyeman et al., 2003; Agyeman 2013) the current discourses on climate change and SRHR tend to overlook the interconnectedness of social justice, including human rights, equity, and environmental sustainability. This is peculiar given that there are already existing approaches that could be utilised here. For example, as discussed earlier, there are approaches to addressing SRHR from a more justice-centred approach of reproductive justice (e.g., Silliman et al., 2016). In these approaches the focus is on reproductive freedoms, as opposed to the neoliberal choice rhetoric, which recognises inequalities and structural barriers in making real choices. Hence, they are centred on recognising the intersectionalities of different inequalities.

An important finding particularly for the SRHR community is that, when discussed in connection to climate change, the conceptualisation of SRHR tends to be reduced to either maternal health or family planning and reproductive rights. Particularly in connection to family planning and reproductive choice the question is often presented in terms of access to contraceptives and contraceptive availability, while limited focus is placed on ensuring comprehensive sexuality education (CSE) and other important components of SRHR in this context. It goes without saying that academic papers on SRHR and climate change cannot address all of the dimensions of the issue at once. Yet, taking a reductionist approach to such a complex issues risks of reducing the interconnections into simplified narratives on human numbers and climate change. As

Huutoniemi (2014) has demonstrated, tackling complex sustainability challenges, such as climate change, requires challenging the disciplinary ways of knowledge production and moving towards transdisciplinary research that embrace complexity.

Consequently, as suggested by others (Sasser, 2018), this reductionism evidenced in the discourses may result in placing emphasis on modern contraceptives as technological solutions as opposed to taking a more systemic approach to addressing the topic. Contrasting women's reproduction to the emissions saving technologies such as switching to renewable energy sources (Skeer, 2002) is an example of reducing complex social issues into technological fixes. Such approaches, as also argued by Gaard (2010), contrast women's reproduction to commodities and in this way commodifies women's bodies. In this context, it is important to reflect again on who benefits from shifting the focus on the technological solutions? Thus, whose interests does this reductionist view of the intersections benefit. Even though it is not in the scope of this thesis to answer to this question, it is interesting to note that scholars, including Bendix and Schultz (2018: 270) have noted that the beneficiaries of increasing the role of technological solutions like contraceptives in solving the challenges of population dynamics are ultimately pharmaceutical companies.

Interestingly, a great number of the papers addressed interconnections between maternal health outcomes and climate change. This could be the result of the data selection processes, but it could also point out to the power dynamics behind discourses and how knowledge is produced. Indeed, questions of knowledge are deeply intertwined with questions of power, as knowledge is shaped by social structures and practices along with the people, who are part of them and acts as 'social agents' shaping these discourses (Fairclough, 2003: 22). For example, a great deal of the research discussing resilience and adaptation through reduction in human numbers was written by scholars in the Global North (e.g., Bongaarts and O'Neill, 2018; Bongaarts and Sitruk-Ware, 2019; Bryant et al., 2009), even though their research focus was on the Global South.

Contrary to my hypothesis, there was clearly a critical discourse that addressed the challenges of integrating climate change and SRHR. This critical discourse was the only one that systematically critiqued and challenged the connections on the basis of past abuses and persisting inequalities. Even though this critical discourse was more vocal than I initially anticipated, it was still rather quiet in comparison to the other discourses. It also had little in common with the other discourses that were otherwise intersecting in multiple fronts. This could be the result of *knowledge hierarchies* (Smith, 2012), which reinforce the dominant ways of knowing and make it harder for alternative voices to surface. The colonial roots of these knowledge hierarchies could also explain the ignorance of assessing the colonial legacies in these discourses. Seen, in this light the identification of this critical discourse is important, as it point out towards alternative ways for discussing the connections between climate change and SRHR.

Alternatively, one could ask why have scholars using intersectional lenses failed to get their messages across more clearly? Or as McMullen (2019) has suggested, do we need better translators between different conversations or discourses on the topic? This could be the case as the findings suggest that there are six

different discourses that examine these intersections. These discourses are somewhat siloed, as scholars from different fields justify the topic based on their own positionality. From example, scholars engaging with the population dynamics discourse have expertise particularly on demography (see, e.g., Bongaarts and O'Neill, 2018), while scholars from the public health discourse are medical professionals or scholars in public health (see, e.g., Wang et al., 2003; Zhang et al., 2019). Many of the scholars engaging in the population dynamics discourse are also actively engaged with organisations working on population and development, including Population Council (Bongaarts and Sitruk-Ware, 2019). Then again, those working on reproductive rights issues were utilising the reproductive rights discourse (see, e.g., Hardee, 2014, Petroni, 2009). Furthermore, scholars from the critical discourse were experts of gender studies (see, e.g., Sasser, 2014) and development studies (see, e.g., Hartmann, 2014), whereas the environment discourse was utilised by experts from the energy sector (Skeer, 2002). This demonstrates how the positionality of the academics themselves shape how these intersections are formulated and on what grounds these justifications are built. Hence, the emergence of six distinctive discourses could point out for the need for more transdisciplinary scholarship on the topic. Simultaneously, it would suggest that scholars ought to be aware of how their positionality shapes these discourses. Critical self-reflection would also allow scholars to understand how their own privileges are shaped by patriarchal practices that itself can silence other discourses (Smith, 2012).

5.4 Limitations and Suggestions for Further Research Reflection

This study takes part in examining the underlying assumptions that influence the ways in which the integration of climate change and SRHR is discursively justified. To my knowledge, there are no previous studies assessing the academic discourse on the topic systematically. The value in the selected approach is its ability to examine the broad range of discourses that characterise the topic and assess their implications from a postcolonial feminist perspective. Yet, there are some limitations to the chosen approach. It is, for example, possible that despite the systematic search, I have not been able to capture all of the relevant literature from the selected datasets. This could influence the discourses and their occurrence. Similarly, internal validity of the findings is influenced by the fact that coding was done alone and not as a collaborative effort in a part of research theme. Thus, human error could influence the consistency of the coding, even though I sought to minimise this by reviewing the consistency of the codes.

Furthermore, this research is limited in a way that all the articles included in the analysis had to make explicit references to climate change or global warming (see, Appendix 1). Thus, it is possible that articles addressing these intersections, for example, impacts of natural disasters to sexual violence, could have been discounted. It could partly explain why majority of the papers focused on maternal health and family planning matters, while other components of SRHR were overlooked. On the other hand, this could simply imply that the intersections between climate change SRHR tend to be reduced to these two domains. Further studies on this would be needed to explore this relationship in detail.

It should be recognised that this thesis is far from providing a complete picture of the discourses surrounding SRHR and climate change, their nuances in detail, or what are the implications of these discourses to concrete policies and practices on the ground. However, what this study shows is that academic discourses on climate change and SRHR are currently missing intersectional analysis that recognises the different dynamics of SRHR in depth. It also demonstrates that the neo-Malthusian and neo-colonial assumptions about population growth still prevail. By demonstrating these challenges within the current discourses, I hope that I have contributed to scholarship suggesting more justice-based approaches to the topic that also recognise the influence of hegemonic power relations and the colonial roots of these discourses. Indeed, the aim of this thesis has not been to discredit the intersections between SRHR and climate change, but rather to evaluate the ways in which this is done. In line with Dyett and Thomas (2019), I do not believe that these conversations should not be had even though they are currently problematic. Instead I do believe that there is a great need for scholarly work to explore these intersections, but from a more intersectional, social justice perspective that recognises the colonial roots of these discourses.

In this thesis, the feminist critique has not been extended to challenge the heteropatriarchal language surrounding these conversations. This was purely because the limited scope of this thesis. Yet, I do believe this is an interesting and deeply relevant conversation that should be examined in future research. For example, exploration of the topic utilising approaches from queer theory could provide interesting pathways for rethinking reproduction and care. Similarly, I believe there is a lot to learn from the work of Indigenous scholars on kinship and their critique of heteropatriarchy in examining the connections between SRHR and climate change (see, e.g., TallBear, 2018). These discussions are already starting as demonstrated in the Clarke and Haraway's (2018) work on *Making Kin Not Population*.

5.5 Concluding Remarks

In this chapter, I have reflected on the findings of the discourse analysis and discussed these findings against the second research question that examined the implications of these discourses from a postcolonial feminist perspective. To conclude, in section 5.1, I demonstrated that the current academic discourses on SRHR and climate change fail to approach SRHR from an intersectional perspective and as such are unable to move beyond universalising Western feminist discourses on women's vulnerability. Equally important is the recognition, presented in section 5.2, that some of the current academic discourses continue to rely on neo-Malthusian assumptions and make neo-colonial claims about solving the 'population problem' in the Global South. While such discourses do emphasise the centrality of voluntary family planning, it is unclear how competing interests of reproductive freedom and the desire to reduce population numbers are settled, if and when they conflict with each other. I showed, in section 5.3, how hegemonic power relations shape these discourses and influence the intersections in general. Particularly hierarchies in knowledge production are important to recognise for understanding why certain discourses are more vocal compared to others. I discussed the importance of recognising these challenges for moving towards more justice-based approaches

for addressing the intersections of SRHR and climate change. Furthermore, in section 5.4, I discussed the limitations of this study and the importance of exploring these intersections in detail in the future. In the next chapter, I offer my final remarks on this study.

Chapter 6: Overall Conclusions

The intersections between climate change and sexual and reproductive health and rights (SRHR) has attracted attention from international organisations as well as academia. Recognising the interdependence of humans and ecosystems has led many to champion these connections, while relatively little attention has been placed on understanding the underlying reasons for establishing these connections in the first place. Such an exploration is important for responding to the multiple cascading challenges in a just and equitable manner. It is also important for ensuring that the discourses on the topic depart from the past abusive policies of population control.

The aim of this study was to explore these justifications for establishing intersections of SRHR and climate change in academia. This was done from a postcolonial feminist perspective, which was deemed necessary given the methodological issues of past studies, which have resulted in largely overlooking how structural inequalities influence these discourses. Discourse analysis was utilised to examine how meanings were associated to these intersections and understand the justifications behind the argumentation. The findings suggest that there are six different ways for engaging with the topic: public health, population dynamics, reproductive rights, critical, sustainable development and environment discourse. Critical examination of these discourses suggest that current approaches to the intersections are problematic, as they fail to interrogate how the current neo-colonial practices and structural inequalities influence them. They also lack intersectional analysis of how existing inequalities intersect and influence how impacts of climate change are felt and how they influence the full realisation of SRHR. The identification of six discourses demonstrates also that approaches to the topic and justifications for its importance vary greatly. Through the analysis of these discourses I have been able to showcase that: discourses on SRHR continue to rely on populationist assumptions, when connected to climate change; current discourses on SRHR and climate change emphasise individual choice and responsibility for responding to climate change; limited focus on academic discourses is currently placed on intersecting inequalities that influence individual SRHR outcomes and how impacts of climate change are felt.

Indeed, this study has shown that SRHR continues to be instrumentalised and attached to population policies and as such to neo-Malthusian ideas about population as a political project to increase the national resilience to climate change. This was best visible in the population dynamics discourses and constructing SRHR as a tool for reducing population pressures for the benefit of the state, community and even the

neoliberal individual herself. Similarly, the findings indicate how particularly the public health discourse constructs women and pregnant women in general as the vulnerable victims of climate change, stripping their agency but also paying little recognition to the intersecting inequalities influencing vulnerability to climate change. Hence, there is a great need to look at SRHR and climate change from a more intersectional lens that would recognise how class, race, gender identity, sexuality, disability, and age, among others, influence how SRHR is experienced during climate change. The critical discourse was the only exception and it is actually built on assessing these connections between different forms of oppression are addressed in depth. These issues are embedded in the debates on feminism and how to transform liberal feminist thinking towards greater inclusivity and intersectionality.

These findings are significant, particularly as there have not been similar efforts, to the best of my knowledge, to explore the academic research on the topic through inclusion of the different dimensions of SRHR and climate change. For scholarship on the topic, these findings suggest that there is a greater need to explore these intersections with a reflection on the past abusive policies and recognising how structural inequalities and hegemonic power relations shape these discourses. For SRHR advocacy these findings are important, as they demonstrate the need to look at more intersectional approaches to SRHR that are centred on reproductive justice and equity. Environmentally, these findings suggest rethinking the intersections through the lenses of *just sustainabilities* (see, e.g., Agyeman et al., 2003) that recognise the connection between sustainability, equity and social justice.

To conclude, this thesis has demonstrated that the way in which scholars utilise language and construct discourses has important implications to the way in which an issue is framed. This thesis provides an important initial step for assessing how the intersections of climate change and SRHR are discursively justified. I recognise that there are much more nuances to the discourses that I have been unable to uncover during the scope of this study. Yet, I trust that these broad categorisations provide tools for continuing this work forward. My hope is that this future work is centred on intersectional approaches that recognise the interconnections between intersecting inequalities. Indeed, without rooting the intersections of SRHR and climate change on sustainability, equity, and justice, true *thriving together* may never be possible.

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8. Appendices

Appendix 1. Search Strategy and Criteria for Inclusion and Exclusion

TITLE-ABS-KEY ("global warming" OR "climate change" OR "rising temperature" OR "climate vulnerability" OR "climate stress" OR "climate risk" OR "climate emergency" OR “climate crisis”) AND TITLE-ABS-KEY ("sexual health" OR "sexual right" OR "reproductive health" OR "reproductive right" OR "family planning" OR "contraceptive" OR "contraception" OR "menstrual health" OR "menstruation" OR "menstrual hygiene" OR "child marriage" OR "early marriage" OR "forced marriage" OR "sexual practice" OR "sexuality" OR "gender-based violence" OR "sexual decision" OR "reproductive system" OR "reproductive health care" OR "unsafe pregnancy" OR "STI" OR "pregnancy" OR "pregnant women" OR "female genital mutilation" OR "female circumcision" OR "circumcised" OR "sexual behaviour" OR "sexual experience" OR "sexual activity" OR "early sexual debut" OR "sexual initiation" OR "antenatal" OR "neonatal" OR "birth" OR "post-natal" OR "sexually transmitted infection" OR "sexual intercourse" OR "HIV" OR "sexuality education" OR "human reproduction" OR "condom" OR "human immunodeficiency virus" OR "sex education" OR "physical relationship" OR "sexual coercion" OR "rape" OR "sexual violence" OR "sexual abuse" OR "sexual harassment" OR "abortion" OR "maternal health" OR "fistula" OR "motherhood" OR "forced sex" OR "intimate partner violence" OR "transactional sex" OR "sex work" OR "HPV" OR "cervical cancer" OR "maternal mortality" OR "neonatal mortality" OR "newborn health" OR "perinatal death" OR "newborn death" OR "neonatal stress" OR "pre-eclampsia" OR "preterm birth" OR "low birthweight" OR "pregnant women" OR "birth outcome" OR "maternal outcome" OR "maternity care" OR "maternal death" OR "maternal care" OR "maternal hypertension" OR "maternal haemorrhage" OR "stillbirth" OR "maternal morbidity" OR "newborn morbidity" OR "vaginal trauma" OR "vaginal injury" OR "violence against women" OR "sexual crime" OR "LGBTI") AND TITLE-ABS-KEY ("programming" OR "programme" OR "initiative" OR "intervention" OR "program") NOT TITLE-ABS-KEY ("animals" OR "animal" OR "nonhuman" OR “plant” OR “crop” OR “vegetation” OR “veg*”)

Inclusion criteria

- To be included in the review, articles need to satisfy all components of the following: a) original study
- Timeframe: 1994 - 2020 (post-ICPD)
- Language: Only articles published in English will be included.
- Publication type: Published peer-reviewed academic journals, book chapters, book reviews, editorials, grey literature reports.
- Focus area: Human SRHR with clear links to climate change/global warming
- Availability: Available a full text

Exclusion criteria

- Excluded studies that involved only animal or plants.
- I did not include unpublished or abstract only publications.
- Excluded studies that were not in English

Appendix 2. List of Codes from ATLAS.ti Software

Figure 8.1 *List of Codes*

Code Name		Discourse
(Extreme) cold temperatures cause adverse maternal health outcomes	21	0 [Public health]
Adverse impacts of climate change on maternal health outcomes	55	0 [Public health]
Adverse reproductive health outcomes evidence for climate action	9	0 [Public health]
Benefits for integrating reproductive health and climate policies/programmes	38	0 [Sustainable development]
Bodily autonomy in disaster settings	6	0 [Reproductive rights]
Changes in fertility decisions and reproductive behaviour due to climate change and climate shocks	36	0 [Reproductive rights]
Changes in fresh water availability & maternal health outcomes	26	0 [Public health]
Changes in rainfall & adverse maternal health outcomes	25	0 [Public health]
Child marriage as a maladaptation strategy	1	0 [Reproductive rights]
Climate change & adverse sexual health outcomes (HIV)	9	0 [Public health]
Climate change & mother-to-child transmission of HIV	5	0 [Public health]
Climate change affecting menarche	13	0 [Public health]
Climate change causes displacement that prevents women's access to health services (i.e. SRH)	29	0 [Public health]
Climate change related disasters prevent women's access to health services	7	0 [Reproductive rights]
Climate change, slow violence and GBV	34	0 [Reproductive rights]
Climate change, sudden-onset disasters linked with increased GBV	54	0 [Reproductive rights]
Climate justice and gender justice	6	0 [Critical]
Cost-effectiveness of reducing emissions through investments in voluntary family planning	5	0 [Environment]
Critical reflection on race	4	0 [Critical]
Critical reflection on the integration of fp and cc	44	0 [Critical]
Criticism of one fewer child argument	11	0 [Critical]
Critique of ecofascism	3	0 [Critical]
Critique of neocolonialism	11	0 [Critical]
Critique of securitisation	4	0 [Critical]
Critique of the representation of women in vulnerability discourse	2	0 [Critical]
Disaster resilience a neoliberal discourse reinforcing gender inequalities	7	0 [Critical]
Empowering women through fp and reproductive health for climate resilience (win-win)	8	0 [Sustainable development]
Family planning (and investments in maternal health) empower women to become more adaptable	12	0 [Reproductive rights]
Family planning (and investments in reproductive health) tool for climate resilience/national adaptat...	16	0 [Population dynamics]
Family planning (and SRHR) as a human rights priority can be advanced with climate change agenda	9	0 [Reproductive rights]
Family planning and having smaller families individual eco-actions	14	0 [Environment]
Family planning as a human rights priority can be advanced with climate change agenda	10	0 [Reproductive rights]
Gendered vulnerability to climate change is structural	16	0 [Critical]
Good maternal health as a climate change adaptation strategy	1	0 [Public health]
Health system strengthening as climate change adaptation	8	0 [Public health]
Justice-based framework for integration	6	0 [Critical]
Pollutants, climate change & adverse maternal health outcomes	29	0 [Public health]
Population source of climate vulnerability & family planning helps adapt	47	0 [Population dynamics]
Reproductive behaviour a climate adaptation strategy	18	0 [Reproductive rights]
Reproductive health as a climate change mitigation and conservation strategy	11	0 [Environment]
Reproductive rights (i.e. fp) as a climate change (adaptation) strategy	20	0 [Reproductive rights]
Responsibility for disaster resilience placed on women	6	0 [Critical]
Smaller family sizes increase resilience to climate change	3	0 [Population dynamics]
SRHR as a sustainable development strategy and integral to addressing climate change	9	0 [Sustainable development]
Temperature increase & adverse maternal health outcomes	269	0 [Public health]
Temperature increase & birth rate	16	0 [Public health]
Temperature increase & HIV prevalence	6	0 [Public health]
Urgency to act on climate change requires fp	7	0 [Environment]
Voluntary family planning solution to population problem contributing to cc	47	0 [Population dynamics]
Win-win solution	14	0 [Sustainable development]

Appendix 3. Code-Document Relations

Table 8.1 *Code Document Relations*

Code Group	Document Type						
	Critical (n=7)	Environment (n=4)	Population dynamics (n=14)	Public health (n=47)	Reproductive rights (n=11)	Sustainable development (n=5)	**Total**
Critical (n=12)	91	1			26	2	120
Environment (n= 4)	2	16	8	2	2	7	37
Population dynamics (n=4)		8	82		13	10	113
Public health (n=14)				494	6		500
Reproductive rights (n=13)	21	1	20		157	8	207
Sustainable development (n=5)			17	2	8	42	69
Total	114	26	127	498	212	69	1046

Source: Author's Taxonomy

In the Table 8.1, the *n* in the code group is the number of documents within that code group. The *n* in the document type is the number of documents under that discourse. The numbers in the Table 8.1 demonstrate the absolute number of codes that were coded in each code group and each document group. The distribution of numbers demonstrate in essence the strength of the discourse within certain categories of codes. This is symbolised with colour codes with yellow demonstrating greater variation and blue strong correlation. For example, almost all of the codes in the public health discourse were identified within the documents that were categorised using public health discourse.

Appendix 4. Dataset

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