

Establishing Resilience From the Bottom: Women with Disability and Climate Justice in Indonesia

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Abstract

Socially, the impacts of climate change are unevenly distributed within the society. Those who have been marginalized, albeit their less contribution to climate change, have been the most vulnerable group suffered from those impacts due to their lack of access to resources and capacities to act. One segment within the group is women with disabilities. Although many policies dealing with adaptation and mitigation to climate change have been adopted by the government, specific interests of women with disabilities are not considered as a result from their lack of involvement and participation in the decision-making process. Nevertheless, women with disabilities have been undertaking voluntary initiatives to build resilience among themselves in dealing with the climate crisis. This article aims to examine the essence and significance of accommodating women with disabilities in formulating policies on climate change and to discuss how they exercise their agency to develop initiatives in responding to the problem. A combined conceptual framework from feminist environmentalism and climate justice is used here in addressing both issues.

Keywords: climate crisis, climate justice, feminism, women with disability

Introduction

Scientifically, climate change is a condition of changes in the composition of the global atmosphere caused by direct or indirect human activities over a comparable period of time.¹ Such changes in atmospheric composition are further described by the Australian Academy of Science (2022) as changes in weather patterns and other associated changes in the oceans, land surfaces, and ice sheets that occur over a time scale of more than thirty years. Climate change has broad and multidimensional impacts, including on a number of crucial sectors, such as socio-economics, defence, security, and other related sectors, such as water resources, agriculture and food security, human health, terrestrial ecosystems, and biodiversity and coastal zones (Craig 2010). Melting glaciers can cause flooding and soil erosion, and rising temperatures will cause changes in growing seasons that affect food security and changes in disease distribution (Craig 2010).

Socially, the impacts of climate change are unevenly distributed across global, regional, and national societies. Those who have been marginalised, despite their small contribution to the problem, are the most vulnerable

due to their lack of access to resources and capacity to act. UN Women notes that Asia is the region most directly vulnerable to the impacts of climate change due to its vulnerable geography and systemic social inequalities. Agriculture, forestry, energy, manufacturing, construction, and tourism sectors that underpin Asia's economies and livelihoods are sectors that are strongly linked to climate change (Pross et al. 2020). In fact, most countries in Asia have yet to have adequate climate change adaptation and mitigation policies (Anbumozhi et al. 2012).

In the context of Indonesia, the impacts of climate change can be both direct and indirect (Aldrian et al. 2011). Directly, the impacts of climate change are felt through: (1) an increase in rainfall intensity that causes changes in the resilience of various tropical agricultural commodities; (2) climate and seasonal anomalies cause various impacts, namely a decrease in agricultural/plantation/fishery production, disruption of transportation, and disruption of some animal and plant species; (3) increased drought has triggered forest fires in several regions in Indonesia; (4) an increase in surface temperature leads to differences in air pressure

between places, triggering an increase in the frequency of tornado events; (5) extreme climate events: during El-Nino, drought threatens agricultural areas; on the other hand, during La Nina, flooding often occurs; and (6) the occurrence of rob, which is sea level overflowing onto land due to tidal waves (Aldrian et al. 2011).

Meanwhile, climate change indirectly has non-physical impacts. This occurs, among others, in the fields of: (1) health, increased cases of dengue fever and malaria caused by rising temperatures during the transition between seasons; (2) infrastructure, infrastructure damage as a result of increased extreme rainfall; (3) energy, decreased rainfall intensity in the dry season leads to reduced water supply for hydropower plants; (4) agriculture, shifts in the rainy/dry season affect cropping patterns and temperature changes lead to an increase in pests and diseases; (5) marine and fisheries, changes in sea surface temperature can lead to changes in the fish catching locations; (6) tourism, the occurrence of tidal floods in coastal areas can damage tourism infrastructure; and (7) transportation, increased extreme rainfall and changes in wind patterns can lead to disruption of land, sea, and air transportation (Aldrian et al. 2011).

Based on data obtained from the National Disaster Management Agency (*Badan Nasional Penanggulangan Bencana/BNPB*) in 2018, climate change also affects the increase in hydrometeorological disasters, including floods, droughts, landslides, tornadoes, and tidal waves (BNPB 2018). Given the characteristics of women in Asia, who are often positioned as the centre of domestic affairs (Pross et al. 2020), all of these direct and indirect impacts will have a greater impact on the livelihoods of the majority of women in Asia (*Ministry of Women Empowerment and Child Protection/KemenPPPA* 2011). In terms of disasters, some disasters such as droughts or floods make women more vulnerable due to disrupted family and community protection patterns. Data from the United Nations Environment Programme (UNEP) shows that in times of disaster, women are vulnerable to being exploited by a range of criminal offences. Unfortunately, women's control and access to resources and decision-making remain relatively weak compared to men (Nellemann et al. 2011).

Therefore, the discussion of vulnerability to climate change cannot be separated from the problems of social inequality that occur in a society. In a patriarchal society where women become a subordinated group, the impacts of climate change will be unevenly distributed according to existing gender inequalities, with women bearing the greater burden. Within this category of women, however,

there are still layers that show intersectionality in relation to their level of vulnerability. In addition to class and race, one of the dimensions is disability. Women with disabilities tend to be more vulnerable than women without disabilities from the same social class when dealing with the impacts of climate change. However, their existence and specific interests are often overlooked in the discourse and actions to address climate change. In fact, the Paris Agreement as the cornerstone of global climate change policy has emphasised the importance of inclusivity in access to information, participation, and justice for minorities in climate change policy-making, including women with disabilities.

With this in mind, this paper has two objectives: firstly, to examine the importance of accommodating the interests of women with disabilities in climate change policy; and secondly, to see how women with disabilities exercise their agency in developing initiatives to respond to climate change. This paper uses Agarwal's conceptual framework of environmental feminism, which is combined with the concept of climate justice to unpack the justice dimensions of climate change issues for women with disabilities and at the same time see their agency through self-initiatives as an effort to build resilience in climate change adaptation and mitigation.

Research Methodology

This paper uses a qualitative model through literature study and interviews. Literature study was conducted to analyse policies related to climate change adaptation and mitigation in Indonesia. Furthermore, interviews were conducted in June 2021 and August-October 2022 with the initiator of Perempuan Bumi community and employees of the Magelang District Environmental Office. The interviews aimed to look at the need to accommodate women with disabilities based on the actual and potential impacts of climate change. In addition, they were also conducted to dissect the initiatives of women with disabilities at the grassroots.

Environmental Feminism, Women with Disabilities, and Climate Justice

Before discussing Agarwal's concept of environmental feminism, it is important to look at the history of the emergence of ecofeminism that has developed to date. Ecofeminism as a discourse and a movement began to develop around the 1970-80s. Françoise d'Eaubonne in her book *Le Féminisme ou la Mort* introduced the term ecofeminism in 1974 (Dankelman & Jansen 2010).

Furthermore, Carolyn Merchant (1980) argues that there is a parallel relationship between the destruction of nature and the oppression of women. Merchant's view emerged as a critique of Francis Bacon's thinking and other male philosophers of the Enlightenment era who saw nature, like women, to be subjugated through science. Consequently, like women's bodies, nature was explored and exploited to fulfil the needs of humans as dominant. The view of ecofeminism that sees the relationship between male domination over nature and women, is reinforced by Vandana Shiva's argument. Shiva sees how women's knowledge of nature has been marginalised by paternalistic values and strong colonial and neo-colonial thinking. This, according to her, leads to 'mal-development', which then exacerbates social and environmental problems (Shiva 1988).

The view of ecofeminism that tends to place women closer to nature and men closer to culture was criticised by Braidotti (1993), Rocheleau et al. (1996), and Agarwal (1998). According to them, this essentialist view fails to explain the aspects of power and political-economic relations that are intertwined in the domination of women. They also see the intersectionality of class, ethnicity, and caste and different conceptions of nature that ecofeminists often miss. Rocheleau et al. later came up with the concept of feminist political ecology and Agarwal came up with the concept of feminist environmentalism.

Through the concept of feminist environmentalism, Agarwal argues that the relationship between women and the environment is a construction of structures of gender, class, caste, and also race in relation to the organisation of production, reproduction, and distribution (Agarwal 1998). Despite the different views that occur in the ecofeminism, environmental feminism, and political ecology feminist literature, they all have one thing in common: they do not pay attention to one social category that also forms a dimension of intersectionality besides class, race, and caste for women. This dimension is "disability", which must be understood as a social construction that also shapes the social, economic and cultural marginalisation of women. This is where the concept of environmental feminism needs to be expanded to include the intersection of disability to understand women with disabilities in relation to climate change.

In the disability literature, there are two dominant perspectives on disability. The first is the medical model, which sees disability as a medical problem resulting from 'abnormalities' in a person's sensory, physical, and mental

functioning. Based on this view, a person with disability needs to have their functions 'improved' through, for example, rehabilitation or treatment (Wardana & Dewi 2017). This model is further challenged by the second view, the social model, which departs from the distinction between 'impairment' and 'disability' (Oliver 1990). In this perspective, a person becomes 'disabled' not because of their physical, sensory or mental limitations, but because their social environment prevents such limitations from being optimised. To illustrate, a person is unable to enjoy his or her right to mobility not because of his or her physical limitations, but because the building and city layout are not wheelchair-friendly.

Disability issues also have a gender dimension. Although both are marginalised in society, marginalisation for men with disabilities and women with disabilities works with different processes and impacts. According to Meekosha (2006, p. 165), women with disabilities are often seen as genderless or asexual creatures. This condition then makes it difficult for them to have the opportunity to enjoy education, work, get married, and to live independently. Indeed, like gender, disability is not a natural condition but rather a social construct that is open to change through social transformation (Harris & Wideman 1988). Their agency is therefore an important prerequisite in the transformation process.

Women with disabilities from weak socio-economic backgrounds tend to be more vulnerable when compared to non-disabled women from the same socio-economic group. In addition, they are often invisible in the public sphere, let alone in public policy-making processes. In light of this, vulnerability is understood as the result of social, economic, and political inequalities that occur contextually and continuously over time (KemenPPPA 2011). In this context, environmental feminism needs to be more inclusive by considering women with disabilities as subjects who have different experiences from non-disabled women in relation to environmental governance and its problems, including climate change.

Indeed, climate change is not an apolitical issue. It is a product of the dominant economic system (capitalism). Women become an exploited social group as expressed by Federici (2012). In addition, the inequalities created by capitalism also cause the distribution of the impacts of climate change to be unequal as it follows the lines of inequality. Those who have a large contribution to the release of greenhouse gas emissions with financial power, political networks, and technology tend to cope with the impacts of climate change more easily. Conversely, those who have little to contribute to the problem carry

a huge burden to adapt to the impacts of climate change despite their limitations. This makes climate change a justice issue.

Justice as a collective life experience in realising emancipation and freedom involves three issues, namely distribution, recognition, and participation (Joy et al. 2014). Furthermore, Wardana (2022) explains that the distribution issue does not only concern the distribution of negative impacts, but also the distribution of benefits from an environmental management activity and the utilisation of natural resources in a spatial unit. Additionally, the issue of recognition lies in how the law positions the social actors involved in state policies. Meanwhile, the issue of participation often refers to the three pillars of participation: access to information, participation in decision-making, and access to justice.

In the context of climate change, this aspect of justice is then translated into the concept of climate justice. The Mary Robinson Foundation of Climate Justice (2022) summarises seven basic principles for the realisation of climate justice, namely: 1) Respect and protect human rights; 2) Support the right to development; 3) Share benefits and burdens of climate change equitably; 4) Ensure that decisions on climate change are developed in a participatory, transparent, and accountable manner; 5) Emphasise gender equality and equity; 6) Harness the transformative power of education towards climate change stewardship, and 7) Use effective partnerships to secure climate justice. Departing from these conceptions and principles, accommodating women with disabilities is imperative in any discussions of climate change policies. Women with disabilities are highly burdened and vulnerable as a result of climate change and play a vital role as agents of change in their communities (MRF 2022).

Government's Policies on Climate Change in the Climate Village Programme

In terms of climate change policies, Indonesia has laid the foundation of its climate change commitment by ratifying a number of international treaties related to climate change over time.² In its development, provisions and guarantees for the fulfilment of the right to information, participation, and justice are increasingly progressing and moving, in a holistic manner, as a key to climate change policies, especially the Paris Agreement.³ The Paris Agreement also places obligations on States to take gender-responsive, participatory, and transparent measures and accommodate the interests of minority groups in climate change adaptation

actions, including the empowerment of women and people with disabilities.⁴ As a State Party to the Paris Agreement, Indonesia has the responsibility to ensure the implementation of all these obligations in its climate change policies and regulations.

Domestically, Article 65 of Law No. 31/2009 on Meteorology, Climatology, and Geophysics has comprehensively regulated the government's obligations in terms of climate change impact control and coordination. In terms of conducting greenhouse gas emission inventories, monitoring climate change symptoms and greenhouse gases, and collecting and analysing data on climate change, there are provisions on community participation. Equal opportunities are guaranteed for all groups of society to participate in the climate change agendas and actions, which are key to the realisation of inclusive climate change policies.⁵ This mandate is further confirmed in Chapter XI of Law No. 32/2009 on Environmental Protection and Management, which extensively guarantees the right to information, participation, and access to justice for all communities without exception.

These public participation efforts are also translated into a number of climate change regulations and programmes at the ministry/institution/government agency level. For example, the Minister of Environment and Forestry Regulation No. 32/2016 on Forest and Land Fire Control has the main objective of utilising and realising public participation in various forms for fire control.⁶ Meanwhile, the Minister of Environment and Forestry Regulation No. 83/2016 on Social Forestry (*Permen LHK 83/2016*) and the Minister of Environment and Forestry Regulation No. 84/2016 on Climate Village Programme (*Permen LHK 84/2016*) aim to encourage capacity building for climate change adaptation and mitigation at the local level. This means that comprehensive participation in climate change action is guaranteed at the level of legislation.

In the policy context, efforts are made to ensure open and gender-equitable involvement and to accommodate the interests of minorities in climate change mitigation and adaptation. In social forestry and climate village programmes, inclusive participation is a milestone for the success of programme objectives. Unfortunately, to date, consideration of the inclusivity of the involvement of minorities, especially women with disabilities, has not been a concern in determining the indicators of success of the programmes. Indicators of success of the two programmes at the site scale are still highly dependent on the consideration of economic and ecological outcomes

(Wongkar 2021). This means that they are not yet fully process-led, namely how inclusive the community's participation and involvement is in decision-making and implementation of programmes developed by the community.

The Minister of Environment and Forestry Regulation No. P.33/Menlhk/Setjen/Kum.1/3/2016 on Guidelines for the Preparation of Climate Change Action and Adaptation also mandates a participatory process involving government stakeholders, universities, and local community representatives. The local community referred to here is "an independent non-profit institution established by the community or the general public that has an interest in issues relevant to mitigating the impacts of climate change (environmental, humanitarian, development, etc.) as a representative of the local community or society". This Ministerial Regulation uses a perspective that tends to depart from the conditions referred to by John Rawls (1999) as "the veil of ignorance", namely that public participation is widely opened without considering that there are groups of people who have different conditions/privileges in relation to aspects of gender, class, race, ethnicity, and disability. In fact, socially, access to decision-making among social actors is not evenly distributed, so affirmative action is needed to encourage marginalised groups to have the opportunity to engage in the decision-making processes.

The Climate Village Programme (Proklim) is a national programme managed by the Ministry of Environment and Forestry. Its aim is to encourage communities to increase their capacity to adapt to the impacts of climate change and reduce greenhouse gas emissions and to reward climate change adaptation and mitigation efforts that have been implemented at the local level in accordance with the regional conditions (*Permen LHK 19/2012*). The climate village itself is a location where the community has made sustainable efforts to adapt and mitigate climate change (Emilda et al. 2017). Proklim applies the concept of community empowerment implemented by the community and its institution in mobilising and managing human and natural resources to strengthen the mitigation and adaptation efforts of village communities to the impacts of climate change (Albar et al. 2017).

In line with the concept built in Social Forestry, Proklim also has a categorisation based on the results of assessment or validation conducted by the Proklim Secretariat. Proklim sites are divided into four classes, namely Pratama, Madya, Utama, and Lestari, with Proklim Lestari as the highest class (Albar et al. 2017).

The Proklim model starts with a site proposal by any party who has information on activities that can support climate change adaptation and mitigation efforts that have been implemented. The location will be assessed and evaluated to reach the Proklim *Lestari* stage based on four aspects of assessment, namely the diversity of adaptation actions, mitigation, and institutional and sustainability support (Directorate of Climate Change Adaptation 2017).

In Magelang, Central Java, for example, a disability-inclusive Climate Village Programme has been implemented. This programme was an initiative of the Bintari Foundation in collaboration with Magelang District Government. The inclusive climate village programme was implemented with the aim that climate change efforts could be anticipated and mitigated by all community groups, including those with disabilities. In principle, this programme was developed in order to implement an adaptive climate change adaptation plan for people with disabilities.

Since 2019, Magelang District Government has been working with Bintari Foundation to provide guidance in a number of villages that are members of the Climate Village Programme (Proklim) to establish Inclusive Proklim. One of them is in Sriwedari Village, Salaman Sub-district and Giripurno Village, Borobudur Sub-district.

"We understand that realising Inclusive Proklim must involve many parties. For this reason, we formed an Inclusive Working Group consisting of the Agriculture Office, BPDB, Social Office, DPU, and disability groups to carry out climate change mitigation actions together, for example, waste management. Here, the communities and working groups are encouraged to actively develop adaptation action plans (Regional Action Plan of Magelang District). In Sriwedari Village, there is also a farmers group consisting of people with disabilities to produce plant seeds" (Sambodo 2022, interview on 20 September).

The challenge is that there are no well-established institutions and organisational systems to accommodate inclusive participation in climate change policy-making processes. When recognition has been given, the next problem lies in providing access to information, participation, and access to justice that is still not accommodative and representative for women with disabilities. In terms of policy, there is no measuring tool that can act as a checklist in the early stages of guaranteeing the realisation of the three access rights. In the principles of climate justice as described in the previous section, the involvement and accommodation of the interests and needs of women with disabilities as

one of the minority groups of women is a milestone for the formation of a just climate change policy.

The involvement of women with disabilities also needs to be included in the Regional Adaptation and Mitigation Plan to ensure continuity of the programme. This is because the Inclusive Climate Village Programme is still under the legal umbrella of a three-year agreement that will end in October 2022. For this reason, efforts to accommodate the comprehensive involvement of women with disabilities need to be elaborated in the Regional Adaptation and Mitigation Plan, which is confirmed by regional legal instruments in the form of Regional Regulations and Governor Regulations. In addition to ensuring the continuity of the programme, incorporating a disability-inclusive pro-climate agenda in regional regulations can also act as a strategic first step or a foundation to start the promotion of inclusive climate change policies. The hope is that such normative standards can evolve into a series of political commitments and policies, as well as programmes that continue to implement and develop these good practices. This becomes important as one of the highest evaluation and assessment components of Proklim is related to the institutional portion, meaning that the involvement and inclusiveness of multi-group participation, especially minorities, one of which is women with disabilities, is important and significant to measure Proklim's success.

From the data review, Proklim is known as a climate change-related programme at the local level that uses a selective approach. This means that the programme is built through a process, whereby villages apply to be assessed for eligibility as climate villages by the government. The problem with this approach is that villages that are not interested in applying will be trapped in a business-as-usual scenario. In fact, the impacts of climate change will be felt by all villages in Indonesia, so a programme for all villages is needed. They must have their own climate action plans according to the characteristics and capabilities of the villages. In addition, the programme is based on administrative areas, namely villages, making it difficult for social actors who have the similar interests in the context of climate change but are in different administrative areas. These include women with disabilities who have similar needs but are often not accommodated in the programmes in their villages. As a result, they form groups across villages and even regions to fulfil specific needs such as those of Komunitas Perempuan Bumi.

Perempuan Bumi as a Grassroots Initiative

Apart from the government, women with disabilities are also self-organising in response to climate change issues related to their specific needs. One of them is Komunitas Perempuan Bumi, which is a collaborative movement that emerged during the COVID-19 pandemic. The aim of this initiative is to procure cloth sanitary pads for women with disabilities in social institutions across Indonesia by empowering other women with disabilities as tailors. According to data from Perempuan Bumi, there are around 420 women with disabilities who reported losing their jobs during the pandemic. These women with disabilities have been working as tailors and craftswomen, ranging from a dozen years to 25 years. Declining orders due to the pandemic have also resulted in income reduction in their family. Dwi Ariyani, a disabled woman activist from Sukoharjo Regency, Central Java, took an initiative together with several organisations working on disability issues, such as the Association of Indonesian Women with Disabilities (Himpunan Wanita Disabilitas Indonesia/HWDI), Perhimpunan Jiwa Sehat (PJS), and Sehati Sukoharjo as well as other communities that focus on women's economic empowerment, such as Biyung Indonesia and EMPU Sustainable Fashion.

From this initiative, 30,000 pieces of cloth sanitary pads were successfully produced. This activity also involved 130 women tailors with disabilities spread across nine provinces in Indonesia (South Sulawesi, Maluku, Papua, Jakarta, West Java, Central Java, East Java, Yogyakarta, and West Nusa Tenggara). Between October 2020 and March 2021, Perempuan Bumi distributed 5,000 cloth sanitary pads to women with mental disabilities living in social institutions.

"But on the other hand, the sanitary pads that we produce are distributed for free to friends who live in social institutions... and before distributing them, we also provide education about healthy menstruation for friends in the institutions. We hope the production of cloth sanitary pads will become an alternative economic empowerment for friends who live in institutions" (Aryani 2021, interview on 5 June).

Cloth sanitary napkins were chosen as a movement initiative because of an important reason. So far, women with mental disabilities who live in institutions have very little access to menstrual health tools (sanitary napkins).

"They even said that they swap their underpants, that is, in ... So, it is not... it is not our own, although it is privacy, right? It should be our own..." (Aryani 2021, interview on 5 June).

This condition is certainly not natural but is shaped by how society represents women with disabilities. In Indonesia, there are around 5,425 women with disabilities living in social institutions with inadequate reproductive health support systems (Perempuan Bumi 2020). Women with disabilities are often seen as asexual, unable to engage in sexual activity, and unable to take responsibility if they have children (Meekosha 2006; Komnas Perempuan 2019). This condition affects the family, limiting their access to the outside world because they are considered a disgrace. It is not uncommon for them to be placed at the back of the house so as not to be seen by visiting guests (Fatimah 2008). This limitation also makes it difficult for them to access information about the right to sexual and reproductive health, coupled with the lack of parental knowledge about it (Komnas Perempuan 2019).

Access to the right to sexual and reproductive health in the form of sanitary pads intersects with the environmental issue of waste as stated by Dwi Aryani:

“So, how is this women’s issue, women with disabilities, and its connection to environmental issues? So, in addition to alternative menstrual products – cloth pads – we also want to advocate that friends with disabilities, especially mental disabilities, also have access to healthy menstrual products, namely cloth pads” (Aryani 2021, interview on 5 June).

In addition to containing microplastics that are harmful to human health (Suhanti 2021), disposable sanitary pads are also costly and require a long process to recycle (Reimonn et al. 2019). Data from the social media pages of Perempuan Bumi and Biyung Indonesia show that there are around 1.4 billion disposable sanitary pad waste every month and if rounded up in a year, disposable sanitary pads have managed to contribute as much as 16.8 billion waste (Perempuan Bumi 2020; Biyung Indonesia 2022). Further, disposable sanitary pads also have a large carbon footprint as they are mass-produced in large factories and then go through long distribution and transportation chains that are energy-intensive. Meanwhile, cloth sanitary pads are more climate-friendly as their shorter production and distribution routes do not require energy-intensive processes.

In this context, the concept of environmental feminism can be placed in interpreting how women with disabilities together with several other women’s organisations organise themselves to fulfil their rights to sexual and reproductive health in the midst the economic downturn during the COVID-19 pandemic. Through the initiative of producing cloth sanitary pads, they emerged as agents of change by considering several conditions related to women with disabilities and nature.

From the climate justice perspective, what Perempuan Bumi is doing can be seen as an effort to show the issues of recognition, distribution, and participation in climate change policy in Indonesia. The issue of recognition can be seen from the weak recognition that women with disabilities are one of the most vulnerable groups affected by climate change. Consequently, the existence of women with disabilities has not been specifically recognised in policies on climate change adaptation and mitigation let alone providing affirmative policies to recognise their interests. The lack of specific inclusion of women with disabilities in policies cannot be separated from the lack of accurate data on the number of people with disabilities in Indonesia (Halimatussaidah et al. 2017). Through the initiatives that they have taken, Perempuan Bumi wants to show the agency of women with disabilities as social actors, who are able to carry out production work with environmental (climate change) and gender (reproductive health) aspects being the main consideration of what is produced and how the product is distributed.

Conceptually, Perempuan Bumi movement is an extension of Agarwal’s conceptual framework of environmental feminism. In this regard, disability is placed as one of the dimensions along with gender in understanding the relationship between women and the environment that is formed from the organisation of production, reproduction, and distribution that places disability as one of its dimensions. In the context of production, as seen by Oliver (1990), people with disabilities are generally marginalised in the capitalist system because they are considered unable to become productive labour to produce more value due to their physical, mental, and sensory limitations. In this system, women are also not considered as productive labourers even though their role is needed in social reproduction so that capitalism can continue (Federici 2012). Thus, women with disabilities experience double marginalisation in the capitalist system because of the conflation of “disability” and “woman” categories in relation to production process.

However, through Perempuan Bumi initiative, women with disabilities who have been marginalised in the capitalist system are able to mobilise agency in non-capitalistic production processes. Equipped with sewing skills, they produce cloth sanitary pads that are distributed to women with mental disabilities in social institutions. In addition, they also use their sewing skills to produce cloth pads that can be traded to increase their income so that they can be economically empowered. In this initiative, the reproductive aspect can be seen from the goods produced in the form of cloth pads that have

an important function in fulfilling the rights to health and reproduction of women with mental disabilities in social institutions. The distribution aspect is evident from the free provision of cloth pads to those in need, in this case women with mental disabilities living in social institutions. In short, Perempuan Bumi initiative has a non-capitalistic character because goods are produced based on their usefulness (use value) and not for the purpose of accumulating profits (exchange value).

The second issue in climate justice is related to participation, which is derived from the issue of recognition. Participation in decision-making processes related to climate change will allow parties involved to express their interests and be considered. However, because women with disabilities are not recognised in climate policies, there is no space for them to participate and their vulnerabilities and needs in terms of climate change adaptation are not accommodated in state agendas. In this regard, initiatives such as Perempuan Bumi are an important step to start showing that women with disabilities, who have been seen as invisible, are participating in addressing climate change. This collaborative movement also aligns with the Sustainable Development Goals (SDGs No. 5, 8, 10, and 12) that Indonesia is committed to implementing. The hope is that through their independent participation, they will be involved in the development of climate change programmes and policies so that the principle of “no one left behind” does not end up being just a jargon.

The third issue is distribution, which in this case relates to the impacts of climate change. Distribution correlates with the recognition and participation of parties whose existence is recognised to be involved in decision-making so that their interests are accommodated in the policies. As a result, they can receive a positive distribution from such policies. In contrast, those whose existence is not recognised are not involved in decision-making, so they tend to get a negative distribution from the policies. Collectively, women with disabilities are a social group that contributes little to the release of greenhouse gas emissions. This is because they tend to be outside the production relations of the capitalist system, which is the root cause of the climate crisis. However, women with disabilities are the most negatively impacted by climate change and government policies because they are not recognised and included in decision-making.

Amidst their invisibility in the eyes of the state, women with disabilities develop their own initiatives. To them, the impacts of climate change are inevitable, so they have to prepare themselves to adapt and build

their group’s resilience independently. This is one of the goals pursued by Perempuan Bumi community to create a space for information sharing and collective action in addressing climate change based on their needs as women with disabilities. However, the challenges to this grassroots work will be even greater given the persistence of structural and social conditions that create barriers for women with disabilities to develop themselves and their communities. Therefore, it is important to continue to voice and bring the experiences of women with disabilities into public conversations and policy-making, including on climate change.

Closing

Women with disabilities, especially those from weak socio-economic backgrounds, tend to be a more vulnerable group when faced with the phenomenon of climate change. In practice, they are often alienated in the public sphere and cannot participate optimally in the decision-making processes, one of which is related to climate change, which is a contemporary issue. At the normative level, the regulation of climate change in various legislation has not accommodated the conditions that allow women with disabilities to empower themselves in an effort to build resilience to climate change. The motion is also reflected in the implementation of site-scale climate change programmes that have not been able to holistically build climate resilience, including accommodating the rights to three accesses (information, participation, and justice) of women with disabilities as a whole. In this regard, collaborative cooperation between the government, communities, and civil society organisations is key to grounding participatory and equitable site-scale climate change policies towards minorities, especially women with disabilities. Perempuan Bumi Community initiative is an effort to realise climate justice by seizing recognition, participation, and equitable distribution of the impacts of climate change and government policies in responding to the climate crisis.

In short, climate change policies that are taken in a participatory manner mean that these policies must be taken by accommodating all elements of subject and object representation holistically. The principles of climate change policy-making are participatory, transparent, and accountable because the voices of people most vulnerable to climate change must be heard, accommodated, and followed through in action programmes. Lessons can be learned from emergency response operations in Aceh and Nias. Studies from

Enarson and Elaine and Komnas Perempuan noted the poor results of policies issued as the assessment stage was conducted without consulting women from various backgrounds. As a result, the data on damages, losses, and needs collected were not representative, resulting in policies that were also unrepresentative in tackling the actual problems and needs in responding to disasters. This is also the case in the context of climate change. Therefore, linking human rights and development policies with an approach that centres on the protection of the most vulnerable, including women with disabilities, is key to achieving climate justice.

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End Notes

- 1 Article 1 Number 2 of the United Nations Framework Convention on Climate Change (UNFCCC) reads: "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
- 2 UNFCCC through Law No. 6 of 1994, 1997 Kyoto Protocol through Law No. 17 of 2004, and Paris Agreement through Law No. 16 of 2016.
- 3 Article 12 of the Paris Agreement reads: "Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement".
- 4 Article 7 number 5 of the Paris Agreement reads: "Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate".
- 5 Article 89 of Law No. 31 Year 2009 on Meteorology, Climatology, and Geophysics.
- 6 Articles 75, 95, and 96 (3) of the Minister of Environment and Forestry Regulation No. 32/2016 on Forest and Land Fire Control outline the central role of community participation both at the level of work coordination and community empowerment and development in the context of controlling and preventing forest and land fires.