Sustainability and Gender: A Reflection Through the Security Paradigm

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Abstract:

Questions of sustainability have for long had to address macro level questions of insecurity at the state level. The discourse on intersectionalities of race, caste and gender, within the scope of the interpretation of sustainability, has continued to elude policy initiatives, even when scholarship from around the world has come to recognize the need to include sustainability within the broader purview of human security concerns.

Within these parameters, gender becomes a critical analytical lens. The question of access to clean and affordable energy resources, including cooking fuel, the right to clean water, and air, has a real and tangible impact on the human security of women and the value as well as the visibility of their labour. In this context, this paper attempts to shed some light on the latitudes of energy and sustainability discourse in India by looking into the transections of theoretical and discursive paradigms and their interactions with feminist political ecology. The global frameworks defining both sustainability and development draw heavily from the liberal tableau, which has been observed to fall short by several scholars. The paper investigates the lessons for global conversations from the experience of the inclusion of the gendered perspective in policy initiatives in India.

Keywords: *Sustainability, gender, India, feminist political ecology, human security, development*

Introduction: Rethinking Sustainability through Genealogical Analysis

The fundamental discourse on sustainability today typically involves conversation dominated by two kinds of voices: the scientific, which focuses on emissions, temperature rise, climate and de-emission targets etc., along with the technocratic, which focuses on reforms, renewable transitions, global accords and the like. Though important, both discourses have major blind spots stemming from objective and decontextualized assumptions. The scientific part of the discourse, like most scientific analysis, can be said to be deterministic in nature. It is presumed that concerns of temperature rise, global warming and climate change, are experienced by everyone living in a society in varying degrees. In a similar vein, the technocratic dimension, which primarily seeks to address global de-emission targets and mechanisms to achieve them, operates under the assumption that one or a set of generic solutions can be applied uniformly across populations to meet those targets. Both of these are impractical methods of approaching the issue at hand. Sustainability is essentially a social question.

The Brundtland Commission Report of 1987 defined sustainable development as that which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). This understanding draws from the liberal development consensus of the post-war period, of rational state action, economic growth, and universalism. It, however, carries four very generic assumptions which crumble under the analysis of the gender lens. The first assumption is that of homo

economicus rationality, whereby human beings are presumed to be perfect rational beings always seeking to maximize personal benefit. Human beings, according to this narrative, are autonomous, independent, and detached individuals. Care work, for example, which women engage in, is not "rational" in the economic sense. It operates fundamentally on different principles. While care work could be viewed to be rational and entailing emotional connections, obligations and responsibilities towards dependents, unlike autonomous homo economicus, caregivers do not act in isolation. Their decisions are shaped by the needs of others, social norms, and cultural expectations. Similar to how classical economic theory has rendered carework invisible, the Bundtland Commission Report's understanding of sustainability has not extensively determined what it means by 'meet[ing] their own needs'. What are the parameters of determining the 'needs' of human beings? Rather, can human needs, be it in the present or in the future, be simplistically determined by any means through rational analysis of competitive production?

Drawing from the above, one could also problematize the aspect of understanding people's needs from a society, with respect to sustainability. Are all humans to be considered the basic unit of homo economicus, or is it that households are presumed to be the primary object of economic analysis by means of a generic simplification? If the latter is taken to be true, then one must accept the fact that no household can be a uniform unit of analysis. There are different individuals within a household and their position within the household determines their access to power, authority, and subsequent access to resources and economic mobility. Further, even when a household is taken to be the unit of economic determination, the scope of economic decisions of a household might vary on the basis of emotions, or obligations, or capabilities. A

household does not settle upon its economic considerations simply based on requirements at all times. Even if a particular resource is available to the public, that does not mean that it would be available to all households. One must take into consideration a household's income capacity and how much of their current budget they could compromise to access the said resource (Sen, 1999; Nussbaum 2000). This is where the necessity to introduce capabilities framework in analyzing any form of development is to be brought in. An academic enquiry into the study of sustainability and its economic parameters must include as assessment of capabilities of individuals and households beyond economic determinism.

On a side note, one must also observe that the primary fallacy of the Commission Report in determining sustainability has also been with regards to limiting its scope to the vision of the environment and ecology only. Studies have found that the report emerged from the environmental insecurities that arose from the rapid industrialization of the 1960s and 1970s (Rasouli and Kumarasuriyar, 2016). The social impact of environmental degradation and the economic disparity within the social hierarchy came to be largely ignored in the first decade of the study. The social aspect of sustainability came to be recognized in international scholarship only in the latter part of the 1990s, thereby broadening the sustainability agenda and highlighting the conflict between the environment, society and economy. Rather than a quantitative analysis of what might be the needs of the future, (and how much of our current needs could be satiated by sustainable exploitation of resources, and how much, in fact, is to be left for the future,) a qualitative perspective of the social capital and its impact on sustainability can expand our understanding of sustainability. While quantitative analysis could be measured in determined terms, qualitative analysis seeks to push the boundaries of

the concept further than universal solutions can. It is rather a conundrum, since this approach problematizes the concept of sustainability rather than providing objective solutions. Sustainability becomes a means to achieve security, rather than an end in itself. This gives the concept an academic latitude whereby upcoming generations can determine what might be included within it rather than focusing merely on ordered culmination.

The second assumption of the liberal development apparatus is to view the state as a neutral actor. Be it in developed economies, and more so in developing economies, the state constitutes only a section of the society. Society, for example in India, consists of various groups and sections that occupy different locations within the social hierarchy. The capabilities of groups and households are determined by these hierarchies and social realities. While most modern civilized societies ensure democratic electoral mechanisms to choose the body politic, a cursory study of developing economies show that not every echelon of the society finds representation in the state. The state (read government also) despite democratic elections in most societies act as arbitrators rather than representatives of various interests. It is in this context then that an intersectional study of the state reveals that it cannot be value neutral. The state consists of human actors, who bring with them bias towards or against the interests of certain sections of society. Thus, altruistic expectations from the state towards the deliverance of universal welfare would be farfetched to say the least.

Thirdly, the Commission Report determines that environmental degeneration affects all groups equally. This idea presumes that any progress moves in a linear fashion. This is also known as progressivist teleology. However, this ideation of direction omits social hierarchy and contextual

disparities in society. As has been explained, social hierarchies determine capabilities of individuals, households, and communities. In the same light, progress must also address unequal distribution of capabilities (Graham, 1997). This presumption also suffers from the fallacy of Eurocentrism, that infers all societies to be homogenous. Even European societies in the modern context are not homogenous. Assuming developing societies like that of India to be homogenous in any regard will be an academic fallacy. The impact of environmental degradation also must be seen from the same viewpoint. Not only are there social disparities in Indian societies, but geographical divergences as well. Some parts of the country experience the wrath of climate change more than some other parts. Townships and villages closer to the sea are more in threat of destruction rising from rise in sea levels than other non-coastal parts of the country. Similarly, the concrete scape of urban settlements might face a rise in temperature on any given day of the year differently than woods, wildlands, or verdant settlements. Thus, just as the concept of sustainability cannot be seen to be an end in itself, the progress and effects of climate change cannot be understood to be unidirectional as well.

Lastly, the Commission's definition of sustainability also assumes that economic solutions and technological solutions to environmental concerns will automatically benefit society as a whole. This is clearly a statist perspective at the very least. When the subject is heterogenous, no single policy initiative can overarchingly resolve varied environmental communities of the society in a uniform manner. This argument of the Commission is predicated upon an understanding that the society that we live in is essentially equal in nature. Studies have sought to demonstrate the how problematic such assumptions are (Agarwal, 2010). Determining justice in an

unequal society is bound to be fraught with problems. The questions of who controls the resources in the present society, who can voice their needs to access these resources and why, or who has the decision-making power to voice these opinions determine the varying gradations of capability in society. A mere tertiary understanding of economic welfare cannot correctly ascertain the decentralized and micro-level insecurities of communities, households and individuals.

In other words, it is inarguable that there exists a profound incongruity between the global language of sustainability, climate change, energy justice and poverty, economic progress, development and environmental impact of global warming, and the local realities of social capital, social, political, and economic capabilities of communities, groups, individuals and households. If sustainability is to be a means to achieve the ends of wellbeing, then it must be viewed beyond environmental parameters, for it to be socially just. This is where the concept of human security comes in.

Sustainability from the Human Security Lens

According to Barry Buzan, security itself has come to be viewed from the perspective of the state (Buzan, 1983). It has been understood to cater to the territorial integrity of a country. This is a rather limited, military perspective of the term, wherein the state determines its very goals. The Human Development Report in 1994 brought in a major shift in the security discourse. It determined that the referent object of security must be the individual rather than the state. It argued that security must be seen as an individual's freedom from fear, want, and indignities of all sorts. This is the first time the scope of security came to include individual aspirations, whereby what humans could determine to want and need came to be included in the study. This placed everyday

concerns of individuals including health, bodily integrity, dignity, and environmental security at the very forefront of the security paradigm. Rather than asking what modes of freedom could the state offer to its citizens, critical exploration shifted to understanding what freedoms can individuals actually exercise in their daily lives (Sen, 1999).

Just like availability of freedom does not determine what freedoms individuals can access, mere availability of resources does not determine whether individuals can actually access those resources. This brings in the question of sustainability within the human security paradigm, bringing the normative unit of sustainability to bear upon the secure body of individuals. Thus, sustainability drawn from a preoccupation with human security does not flow from a mere measurement of the carbon index, but from daily access to sustainable resources. A community, individual or household cannot become sustainable only if they have access to water, for instance. The human security paradigm requires that water be clean for human consumption. Similarly, households and communities cannot be demarcated to be electrified if only one government building of a village is electrified. Human security paradigm demands to take into consideration the reliability of electricity, the quality of electricity. Only when each household has access to electricity from a reliable and sustainable source, can that household be deemed to be electrified. If in a household one individual has to pay the individual price of collecting and gathering resources, then that household cannot be considered to be a sustainable household. In most cases, as this article seeks to assert, such costs accrue in the form of unpaid household labour by women, whose wellbeing and freedom from indignation of all sorts fall through the cracks in prevalent security paradigms and development narratives.

This parameter exposes the gendered nature of sustainability as well, whereby its concerns become an extension of human security. Studies have elaborated how the cost of unsustainability is paid overwhelmingly by women in society, and more so in a developing society (Tickner 1992). When a drought hits, the territorial integrity of the state is not threatened. It is women who have to trek farther from their households to gather fresh water, compromising on their health, labour, time, and opportunities of education. This time and labour could be used otherwise for personal interests. When forests are felled, men of households that have generationally depended on forest resources, have to migrate to urban areas for employment, while the responsibility of maintaining household security as well as familial wellbeing falls disproportionately on women. As explained earlier, women already reside in an unequal society. Environmental degradation acts as a threat multiplier to the bodily integrity and wellbeing of women, exacerbating pre-existing gendered inequalities. Thus, any policy initiative that overlooks the gendered nature of sustainability remains incomplete and perhaps ineffective to a large extent. A sustainable policy initiative must come from those relegated to the margins of society.

The Question of Energy Justice: Gendered Parameters of Sustainability

Energy security has evolved as a modern discourse within the security paradigm. Energy security, in the line of economic development and sustainable progress, has come to be viewed from the human security paradigm as well. Energy security, when viewed within the sustainability framework takes the shape of energy justice. Energy justice, expands the study of energy security by bringing in the question of equity and jurisprudence within the security paradigm. Scholars have

observed that the basic principles of justice and fairness must be applied to understand existing inequalities of people in accessing sustainable resources?. To comprehensively address the questions of sustainable development, considerations of energy justice must inalienably be included as subjective parameters (Guruswamy, 2010). Here, the inequality in accessing energy resources in lieu of sustainable development is attendant with the energy poverty of communities, and individuals (Guruswamy, 2010).

From the perspective of the state, energy security is defined in terms of energy grids, the need to develop renewables capacity, the development of energy storage systems and infrastructures, as well as the refinement of energy transitions. From the perspective of individuals, on the other hand, the assurance of being able to prepare a meal, the health implications of preparing a meal indoors, the responsibility and burden of collecting fuel to cook a meal, the affordability of accessing this fuel, etc., constitute the concerns at the heart of the human security perspective of energy security. Energy policy initiatives not taking these parameters into consideration while formulating said policy, risks falling short of understanding structural inequalities in the society impacting access to energy resources. When climate burdens, like energy burdens, are not distributed justly in a society, energy policy initiatives become unequal, unfair, unjust in nature.

Over the years, scholars have defined three criteria to examine energy justice (Jenkins et al, 2016). Firstly, there is the question of who gets clean energy, which brings in the notion of distributive justice. As any society is hierarchically tiered, its access to clean energy remains skewed as well. Energy policy of any state that does not consider the margins fails to adequately cater to the actual energy poverty of the

masses. There are several layers to understanding access to energy as well. Even if access to energy in the initial instance might reach the populace, energy justice requires ensuring continued access to reliable energy for the people. A case in point that enumerates gaps in this regard can be elucidated with the Pradhan Mantri Ujwala Yojana in India, an initiative to provide LPG (Liquid Petroleum Gas) as clean cooking fuel to every household in India. While the Yojana (project) has created a drive towards several new connections, the subsidy required to access this connection has been limited to only the first cylinder of LPG. After the first cylinder, subsequent charges have been set at a range of 900 to 1100 INR (Indian Rupee). For most households, that brings in the question of affordability (Cabiyo et al, 2021). Also, the prices of these cylinders fluctuate depending on the global energy market. Thus, even when the first cylinder is accessed via subsidies, it may remain unused subsequently (Jha, 2025). Most families return to using traditional mechanisms of accessing readily available cheap fuel. The gender equity point here comes through an interrogation of the actual cost of gathering and using unclean fuel in the absence of clean LPG. In most Indian households, women are the primary caregivers, as has been ascertained in this study. Cooking and tending to the family's nutritional needs falls under this caregiving category. It is women who have to spend hours gathering wood for their traditional ovens, and who spend hours inhaling smoke from the burning wood during cooking. Even when families want a refill, delivery trucks do not reach remote areas regularly, if the distribution centre is far from the household. There is the matter of transport cost along with the surplus labour, which then have to be performed done by women. Multiple studies confirm that a connection does not amount to its sustained use (Rao & Pachauri, 2017). In fact, government research has

found that the Pradhan Mantri Ujwala Yojana has encouraged households to restrict LPG use to on an average of three refills only (The Hindu, 2025).

With respect to electricity, again, sometimes, a village or a taluka is considered to be electrified for example, if only one or a couple of buildings in that village receives electrification. It could be the local post office, the local school, the houses of the panchayat head or maybe a couple of local political leaders. Further, electrification does not specify the quality of electrification being provided, or the unequal access to energy that demarcates not only rural and urban settlements, but that exist within urban areas as well. Studies have shown that access to electrification has gone hand-in-hand with gentrification even in the urban areas of the country, especially in areas of informal settlements (Haldar et al, 2025). Absence of land titles and legal housing status are taken as guarantors of exclusion during electrification drives. The need to provide elaborate identity documents in terms of identity cards, land deeds, fixed incomes, etc. becomes a hurdle when it comes to recognizing a considerable number of people as legal consumers of electricity. One must note that residents of informal settlements (read slums) are designated as illegal encroachers in cities. The understanding of the ruling dispensation is that people residing in these sections of society, when given unfettered access to energy will misuse it by keeping their electronics or electrical devices running all through the day. It is presumed that they resort to illegal or sordid means to of seeking electricity despite such access. This is a very patronizing attitude that might also be seen to be classist and casteist in many regards, and that find reflection at the policy adjudication level.

Thus, even while technically these households are electrified, data does not specify the quality of electrification in these

households of this particular locality. It does not specify how many hours of electricity they receive in a day. Also, it could be entirely possible that resorting to illegal means of obtaining power might actually be mitigated if regular power supply was ensured. Far from overusing electricity, these households could be said to utilize it scantily. One household generally consists of 4 to 7 people living in one or one-and-a-half rooms. To put things in perspective, they use one T. V., one ceiling fan, one stove top in the same room (sometimes not even that), or have one electric light source for a family of 7. If they have access, and even if they keep their appliances on, which they do not, they still end up underutilizing electricity with respect to the number of members in their households (Gupta et al, 2025). To further consider how gender plays into this discourse, one might consider how women and girls of such households are put under duress by having to study without light or engage in related educational activities, spending more hours in grinding spices by hand rather than through electrical equipments, or bearing the brunt of cooking in heat without a fan or any other cooling equipment, etc.

The next issue to be addressed is that of procedural justice, as to who gets to decide on how energy is to be distributed or how access to energy is to be determined. Energy committees, local government structures struggle with representation when it comes to ensuring procedural justice. In the case of India, the issue has existed for a very long time. It is not surprising that in our society that is stratified around markers of caste, class, and gender, the very question of representation has come to mirror these hierarchies. Women hardly ever find place in decision-making positions when it comes to concerns of energy transition, energy equity or justice (ANDE & IDRC, 2025). There is also the problem of lack of land titles and legal ownership of resources by women, which makes them

vulnerable to compensations in cases of environment-induced displacement (WGC, 2025). Since our conceptualization of traditional households is a patriarchal one restricted to the male heads of families, women are seldom viewed to be legitimate recipients of any direct subsidy or grant. By the same token, women are not considered to have a voice distinct from the household that she is tied to, even while her independent labour contributes heavily to the sustenance of the household itself. Household level economic decisions are generally taken by the male head of a family. Even when the number of women in a household might be more than the number of men within the same household, women's opinions and choices when it comes to the choice of fuel to be used, and the necessary expenditure to be made access that particular resource, are seldom heeded. No wonder then that women are not even deemed suitable to be brought under the fold of technical training programmes involving energy transitions.

As a result, energy technologies are built around neutral bodies which inadvertently become masculinist enterprises. For example, when LPG stoves are designed, the average height of the cooking platform is rounded off to the average height of an Indian man. It is not considered that the average height of women is shorter than that of men, making stoves difficult to access for many women. Added to that, the fact that women in any household generally multitask while taking care of their children, often stirring large pots (since she is cooking for a large household) in precarious conditions. Even if the accident-proneness of the entire set-up be overlooked given her domestic skills (learned over time and through training from other women), the ergonomics of stirring large pots for a long time contributes to long-term physical ailments like chronic shoulder, neck pain, wrist strain etc. for women.

The final aspect is that of recognition justice, whereby one asks whose labour is recognised in the pursuance of sustainability, which amounts to asking who are the real actors of sustainability or its stakeholders. In the statist perspective of the security paradigm, the state is one party placed on the other side of the supposedly homogenous and neutral entity that is the public. It is regarded homogenous insofar as the public are either citizens, consumers, or customers. They cannot be all at the same time. Neither can they have fractured identities. The question of intersectionality problematizes this homogeneity at several levels. It brings in the often-elided aspects of the cost of labour and gender. Time poverty, as has been discussed, is another overwhelming constraint with a gendered dimension in Indian societies. Not only is accessing sustainable sources of energy a laborious endeavour, but it is also a time-consuming one. When undertaken only by a specific gendered body, it accentuates the disparity in access to freedom between men and women. When a girl child has to tend to domestic chores in the day, and has no access to electricity in the evening, she has no hope to transcend her circumstances in the future through education. Unsustainability and energy poverty not only take away her time for self-empowerment but also diminish her future opportunities for education and freedom from indignities of all sorts. Thus, the human security paradigm compels us to take heed of how sustainability is inextricably associated with conditions of safety, health, autonomy and dignity.

Conclusion:

Feminist Political Ecology and Gendering Unsustainability Energy and climate justice shoves sustainability into the realm of fairness and equity, which evinces it as essentially a gendered process (Robinson 2018). It is generally women who work for longer hours, often without pay, in heat, without

rest, and with no access to clean drinking water. During climate disasters like floods, women have higher mortality rates not because of lack of bodily mobility, but due to the faltered mobility of other people (like the elderly and infants) and domestic animals under her care. She is immobilized, as it were, by her responsibilities. After floods, her responsibility for care-work multiplies in the form of rebuilding, seeking, foraging for food and other resources, often while men migrate in search of employment. Women often rebuild by depriving themselves of nutrition, while taking care of the household and absorbing the relentless onslaught of such processual constraints, both physically and psychologically.

In this context, feminist political ecology demands the recognition of 'access' to resources to be an inherently political question, inseparable from the complementarity of the gendered lens (Rocheleau et al 1996). Structural changes in control of land, forests, water bodies, must coincide with access to energy systems and sustainability. Without structural changes in power structures in society, gendered access to resources will be difficult to achieve. Further, the knowledge of women garnered through generations of practice must be legitimized and given due recognition. Women's experience of labour must not only be remunerated, but also be instrumentally deployed for gaining insights. Women often have deep expertise in seed preservation, forest regeneration, water sourcing, etc., which must be brought forth under the purview of scientific erudition. Lastly, women must be included in climate, ecology and energy decision-making as a matter of necessity through advocacy, activism, and a decentralization of democracy. Only then can sustainability be a project of progress.

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