BOOK REVIEW

Women, Agriculture, and the Environment

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Agarwal, Bina (2016), *Gender Challenges: A Three-Volume Compendium of Selected Papers*, Oxford University Press, India, pp. 1496.

This three-volume compendium published by Bina Agarwal titled *Gender Challenges* contains a collection of 28 papers written by her over three decades. The essays examine in depth the subjects of agriculture, property, and the environment.

Three features of Agarwal's scholarship are noteworthy. First, as early as the late 1970s, she brought a gender perspective to development economic analysis. Secondly, her analyses and narrative are enriched by the use of qualitative and quantitative methods, as seen from several papers in Volumes 1 and 2. She draws on disciplines other than economics, including law, the physical sciences, and sociology. Several papers in Volume 2, for instance, cover in some detail aspects of inheritance law. Thirdly, her regional analyses and cross-country comparisons help her to arrive at insights that would not be possible by a focus on one country or one region.

Volume 1, on *Agriculture, Technology, and Food Security*, explores how the modernisation of agriculture, introduction of new technologies, and rural innovations (including institutional innovations) affect the position of rural women within families and in society. Four papers in this volume are of special note: two on the Indian experience of agricultural mechanisation (published in 1981 and 1984, respectively), one on biases that lead to the undercounting of women as "workers" and as "available for work" (published in 1985), and the last on rethinking agricultural production collectives (published in 2010). Agarwal's empirical work questions the conceptual and methodological foundations of studies that tend to overstate the benefits of farm mechanisation. She is widely recognised for four important contributions to the field of women and agriculture. First, Agarwal was among the first to question a dominant assumption in the seventies

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that women workers were less productive than male workers, an assumption that mainstream agricultural economists used for treating women's labour time at half or three-fourths of male labour time. Drawing on the results of an engineering experiment undertaken by Punjab Agricultural University, she established that women were in fact several times more efficient than men. On these grounds, she argued that women's time ought to be valued at least as equivalent to that of men, a practice that is now more commonly (although still not universally) followed in contemporary studies of farming in India.

Secondly, studies suggest that complex factors influence the decision of farmers to adopt mechanisation. In a key paper on the diffusion of rural innovations (published in 1983), Agarwal challenges existing theories of innovation diffusion and offers a typology and explanation on what affects the adoption of rural innovations that brings together technical, economic, infrastructural, and cultural factors with intra-family dynamics and social structures.

Thirdly, she has had a strong influence on making data collection much more gender-sensitive by having drawn attention, some 30 years ago, to glaring gender biases that existed in India's decennial censuses and National Sample Surveys. She also makes an important distinction between ownership and control of property, emphasising that for women, control does not always follow from ownership. Fourthly, Agarwal has been a pioneer in bringing gender analysis into the analysis of poverty, growth, and equitable development. Her writings demonstrate how unequal intra-family relations and systematic anti-female biases place a disproportionately higher burden on poor rural women as compared to men when it comes to coping with poverty, food insecurity, and access to healthcare. The volume ends with Agarwal's recent work, including a paper on agricultural production collectives (2010), a new field of research and policy formulation.

Volume 2, on *Property, Family, and the State*, offers a wealth of additional papers on the importance of women's rights in land and property, building on Agarwal's well-known book *A Field of One's Own* (1994). According to Agarwal, the gender gap in the ownership and control of property is "the single most critical contributor" to the gender gaps in economic well-being, social status, and empowerment. She argues that few deprivations impinge on so many dimensions of women's lives as their lack of command over immovable property.

In her subsequent work, Agarwal argues that women's ownership of immovable property greatly reduces the risks of experiencing domestic violence. In "Toward Freedom From Domestic Violence – The Neglected Obvious" (2007), she argues that ownership of land or a home can dramatically deter violence, or give women an exit option should violence occur. Being employed and earning an income do not automatically provide such an option. Her co-authored study of 500 Kerala households indicates, after controlling for the effect of a wide range of other

variables, that those owning a house or land face significantly lower risks of violence than women without property. Her conclusion: employment opportunities can complement but not substitute land and property ownership.

Agarwal's interdisciplinary analysis of property rights goes beyond offering conventional arguments from mainstream economics (which looks at property mainly in terms of its economic value), and examines the role of immovable property in defining legal and social identity as well as self-worth; influencing access to political power; and shaping the notion of citizenship. Three papers are particularly useful in this regard. The first explores the differences between the rights of widows and daughters in property and agricultural land; the second provides an in-depth analysis of gender inequalities in laws governing the inheritance of land among Hindus, Muslims, Christians, and Parsis in India; and the third demonstrates how the bargaining approach can provide insights into the factors that enable legal reform. In her paper on gender and legal rights in agricultural land in India (published in 1995), she provides an analysis of gender inequality (across States and by religion) in India's inheritance laws, especially as they relate to land. In another paper, she questions the assumptions about gender relations that are embedded in conventional economic household models. For instance, men are typically perceived as breadwinners and women as dependents. This is why men are accepted to be legitimate claimants when it comes to inheritance whereas women (daughters, wives, and widows) are not. Similarly, women are seen as being less capable than men when it comes to managing properties, a social perception arising out of entrenched patriarchal norms. Many also believe that changing traditional inheritance laws of assigning property rights will break up the harmony of the family.

Conventional household models assume that family members pool all resources and incomes, share common interests and preferences, and an altruistic head of the household – typically assumed to be a man – takes decisions in the best interests of the family. Agarwal's work challenges these assumptions in several papers, but of particular note is her widely cited paper on bargaining and gender relations (published in 1997). In it, she outlines the bargaining approach (which treats intra-household relationships as characterised by cooperation and conflict) as an alternate theoretical approach to the unitary household model. Agarwal develops a model of interconnected bargaining across four arenas – the household, the community, the market, and the State, and expands the factors that can affect women's bargaining power in these arenas to include previously unexamined ones, such as command over private property, access to public resources, as well as social norms and social perceptions. She then shows how norms too can be bargained over, thus departing from conventional economics, which takes social norms as given.

Volume 3 on *Environmental Change and Collective Action* addresses issues of sustainable development and environmental governance. Agarwal began writing

about these issues in the 1980s, starting with her well-known *Cold Hearths and Barren Slopes* (1986). Agarwal offers an important critique of eco-feminist analysis in two papers, the first on the gender and environment debate (1992) and the second on environmental management, equity and eco-feminism (1998). In these papers, she challenges two "over-stated" narratives within feminist scholarship. The first narrative asserts an essentialist connection between women and nature and emphasises women's "special connection" with nature and conservation. Agarwal critiques this both conceptually and historically as a flawed generalisation, and illustrates this through an analysis of the Indian experience. Eco-feminism, by neglecting differences between women arising from caste, class, ethnicity, location, and context, can lead to misguided policies. In particular, it can place an unfair burden on women by making them responsible for environmental protection on the argument that they have a special connection with nature. The second narrative draws attention to women's absence from environmental governance, and implies that environmental conservation will follow automatically from women's participation in governance. Agarwal turns this narrative around by asking a different question: What difference would it make if women were present in environmental governance?

Agarwal also empirically identifies why women are absent from institutions of governance and examines the benefits of women's inclusion in environmental governance. In a paper on participatory exclusion, community forestry, and gender (published in 2001), she identifies factors that prevent women from effectively participating in institutions of environmental governance. These are rules of entry, social norms, social perceptions, entrenched territorial claims by men, women's personal endowments, and their household endowments. In three other papers, she uses primary data on community forestry institutions (CFIs) in India and Nepal to undertake an empirical analysis of the impact of including women in these institutions. In a paper published in *Ecological Economics* in 2009, she demonstrates that a critical mass of women in the executive committees of community forestry institutions can significantly improve conservation outcomes. In a paper published in *World Development* in 2010 she asks whether women's proportional strength in CFIs affects their effective participation. She also measures what proportion of women would constitute a "critical mass" and suggestss that the percentage lies between 25-33 – interestingly, the figure that is embedded in the 73rd and 74th Amendments to the Constitution of India, which reserve at least one-third of seats for women in elections to institutions of local governance in villages, districts, and urban local bodies.

The three volumes also contain important recommendations for policy and data collection relating to several key areas, such as enhancing women's access to land and immovable property, improving women farmers' access to inputs and markets, collecting gender-disaggregated national statistics on land, improving definitions and accuracy of statistics on women and work, ensuring women's inclusion in governance of environmental institutions, and so on.

Agarwal makes a strong pitch for improving the collection of national statistics to enable a better assessment of human development. At a broad level, she calls for collecting information on a range of social and cultural indicators that affect women's lives. She also makes a number of suggestions for eliminating gender biases in data collection, especially when it comes to measuring women's work. To begin with, definitions need to be standardised so that surveys are able to better capture who is employed or unemployed. Similarly, it is necessary to distinguish between domestic work and non-domestic (or economically productive) work, especially since cultural perceptions affect such classification of women's work. Agarwal also calls for enlisting female enumerators and seeking female respondents in order to reduce respondent and enumerator biases introduced by cultural perceptions.

Agarwal argues for group approaches to livelihoods and for strengthening institutions of governance that manage natural resources. Given that most poor households have very little land, she calls upon the State to think of group rights and bestow group rights of ownership and control over land. She advocates forming collectives of the poor, and argues that group farming can be more effective than individual farming in tapping economies of scale and enhancing small farmers' (especially women farmers') access to inputs and markets.

In the *Afterword* to Volume 3, Agarwal reflects on the extent to which feminist economics has effectively challenged mainstream economics. She asks, further, if the achievements of feminist economics should at all be judged by using mainstream economics as the benchmark. She argues that challenging mainstream economics should be only one of several criteria. As a matter of fact, feminist economics should develop its own criteria for judging its effectiveness by asking at least two questions: Is feminist economics fulfilling its intellectual responsibility in terms of understanding gender inequality in all its forms? Is feminist economics fulfilling its ethical responsibility in terms of ensuring that research findings are being used effectively to improve women's lives? In other words, the responsibility of the feminist researcher should not end with analysis. Initiating public action for improving women's lives should be an explicit goal.