

# Women's Participation in Forestry: Some Theoretical Issues

Sarker, Debnarayan and Das, Nimai

Centre for Economic Studies, Presidency College, Kolkata-73

2001

Online at https://mpra.ub.uni-muenchen.de/14891/ MPRA Paper No. 14891, posted 29 Apr 2009 07:30 UTC

# Women's Participation in Forestry: Some Theoretical Issues

Debnarayan Sarker and Nimai Das Centre for Economic Studies, Presidency College, Kolkata (INDIA)

**ABSTRACT**: The Theoretical explanations that depend on WED, which focuses on the material role of women for women's 'closeness' with nature, Ecofeminism, which emphasizes the natural and spiritual content of women for the same logic, and GAD, that firmly believes that gendersensitive planning for JFM should be to find ways so that women can institutionalize the bargaining strength they have, are increasingly reflected in our National Forest Policy and in the JFM legislation of some of the States. This paper, in an attempt to examine the extent of women's involvement in forestry and their role in JFM in West Bengal, a key precursor to the JFM concept for India, observes that despite women's greater involvement in forestry, State JFM resolution has proved inadequate for ensuring their participation in community institutions. But the setting up of Female FPC in some areas of West Bengal by recent policy provisions has extended the scope of women's active participation in Forest Management

**KEYWORDS**: Joint forest management, gender sensitive forest management group, bengal forest resource, women's participation in forestry.

Policy makers and advocates of Joint Forest Management (JFM) agree that women should be full participants and their involvement is especially important because of the nature of women's work (Tinker, 1994:P.367; Hobley, 1996: p.19; Locke, 1999: p.235). This commitment is increasingly reflected in some of the provisions of JFM legislation and in the debate and documentation of the National JFM Support Group and could provide a genuine basis from which stakeholders within Downer Organizations, Non-Governmental Organizations (NGOs) and Forest

The author would like to thank Mr. Debal Roy, Divisional Forest Officer, west Midnapore division and Mr. Abhijit Basu Roy Choudhury, Chief Conservator of Forest Research, Directorate of Forest, Govt. of West Bengal, for providing data of this paper. Special thanks to Mr. Nihar Ranjan Chakroborty, DFO (Statistics) and Mr. Gopal De, Assistant Statistician, Directorate of Forest, Govt. of West Bengal, for helpful comments.

Departments could encourage JFM to address women's concern (Lichbach, 1996). Thus gender policy has been informed by instrumentalist positions in the debate over women's relationship to the environment. This paper attempts to examine the extent of women's involvement in Forestry in Non Timber Forest Products (NTFPs) and their role in JFM in West Bengal where the successful experience of JFM emerges as an exceptionally good example for Govt. of India to turn this concept as a National Forest Policy in 1990.

This paper is divided into four sections. Section I presents the Theoretical Framework of the study. Section II deals with the review of studies concerning the formal provision of women's participation in JFM in India along with some research studies in this context. Section-III provides the data set and empirical results. Conclusions in the light of the results obtained in our study are presented in section IV.

### **I** Theoretical Framework

Mainstream development agencies are not centrally concerned with development theory, but they draw on an instrumentalist line of argument concerning the relationship between women and the environment (Leach and Green, 1995). Mainly two arguments are put forward behind the theoretical explanation of WED (Women Environment and Development). 1<sup>st</sup>, improving the status of women will assist the solution of environmental problems (Jackson 1993 c). 2<sup>nd</sup>, within environmental projects, women's sole participation will lead to improve project efficiency. "Women's productive role", as Tinker puts in, "not their needs, provide the justification for including them in forestry programmes" (Tinker 1994: p.370).

The argument of WED in favour of their theoretical explanation is: women are more dependent on nature by virtue of the sexual division of labour. It is said that women are primarily responsible for the gathering of fuel, fodder and wild foods and the growing of subsistence crops for survival, whereas men are seen as mainly responsible for the growing of cash crops for profit (Leach and Green 1995: p.7). Women are seen as being the 'most' appropriate participant in environmental conservation as the main victims of environmental degradation (Shah and Shah, 1995). Thus it is implied that women have a special connection with environment, that are somehow close to nature and men (ibid, 1995; Leach and Green, 1995). The WED's understanding of women's relationship to the environment implies that the central issues for community forestry are formal provisions for women's representatives plus recognition of women's resource-use roles and their special knowledge and values about the environment.

The fact that women have a 'special' connection with the environment derives much weight for its explicit articulation in Ecofeminism. Ecofeminism presupposes a direct connection between women's biology and women's relationship with the environment. In proposing a natural affinity between women and environment, Ecofeminism has been seen as retrogressive by the women's movement, because it proposes a direct connection between women's biology and women's relationship with the environment (Locke, 1999). Whenever women reacted against ecological destruction and chances of annihilation of life, they became concerned about the violence against them. Aggressionism against environment was perceived almost physically aggression against female body (Mies and Shiva, 1997).

Though WED and Ecoferminism both claim women has a special and close connection with the nature and in that the two approaches have strong similarities, WED does not explicitly subscribe to ecofeminism and has important differences from it. 1<sup>st</sup>, Ecofeminism emphasizes the natural and spiritual content of women's 'closeness' with nature (Locke, 1999: p. 237). 2<sup>nd</sup>, in proposing a natural affinity between women and the Environment, ecofeminism has been seen as retrogressive by the women's movement for it proposes a direct connection between women's biology and women's relationship with the environment. In contrast, the WED's position accepts the socially - constructed nature of women's role in resource-use, but assumes that women in their current, roles are more informed and interested in environmental issues (Rocheleau et. al. 1996) and are therefore a 'natural' constituency for conservation interventions (Jackson 1993 b: p. 649; Leach and Green 1995: p.2). Thus WED provides ideological support for environmental policies that uphold the given division of labour.  $3^{rd}$ , while WED is essentially an interventionist position, albeit one that advocates participation, Ecofeminism is much more radical political stance that argues for respect for women's indigenous environmental activities (Joekes et. al. 1994: p.137-38). Ecofeminism also points to women's activism in indigenous environmental movements as evidence of their altruism vis-à-vis the environment (Agarwal 1992: p.147; Leach and Green 1995: p.10).

The Gender And Development (GAD) perspective observes women's (and men's) relation to environmental resources merely as a part of general entitlements and capabilities ascribed to individuals by social relations or gender, class and so on (Joekes et. al. 1994: p.139). In this exposition GAD posses some important differences from WED and Ecofeminism. 1<sup>st</sup>, GAD denied any special relationship between women and the environment to both WED and Ecofeminism on the basis of the nature of women's work or on the basis of female biology. 2<sup>nd</sup>, rejecting the notion of women as an undifferentiated category with particular interests, GAD regards current social roles

as established and maintained though power and authority. **3<sup>rd</sup>**, **although** ecofeminism glorifies women's altruism, GAD draws attention to debates over intra-household relationships where a women's bargaining power is diminished by the perception that her well-being is of secondary importance to that of other household members (Jackson 1993a: p.1958; Sen, 1987: p.17-30). Considerable evidence suggests that traditional community argument has in practice usually been premised on inequality within and between households (Jackson, 1993b: p.651; Quiggin 1993: p.1124; Watson 1989: p.67).

Therefore, gender analysts have argued for a revolution of women's involvement in environmental movements and women's community managing work. They argue that such involvement in essentially a conservative process actually constitutes the extension of unpaid work for women rather than evidencing women's radical environmental activism (Leach and Green, 1995; p-19; Jackson, 1993a: pp.1950-52). Moreover, there is increasing recognition of the gendered nature of inter-community environmental issues (Agarwal 1994, Jackson 1993a, Shah and Shah, 1995). Although gender analysis can not distil any general relationship between women and the environment that could inform perspective policy (Razavi and Miller, 1995), it suggests that environmental interventions will be a new arena in which gendered bargaining processes will be enacted and contested (Locke, 1999).

Thus the theoretical viewpoint of WED and Ecofeminism recognize special relationship between women and environment or women's 'closeness' to nature on the basis of material role of women, and of natural and spiritual content of women's 'closeness' with nature. But, more importantly, increasing women's participation without attention to addressing gender inequality represents little more than increasing the unpaid contribution to women (Mayoux, 1995: p.236. Understanding of women's relationship with the environment needs to recognize the relationships of power and authority, negotiations and bargaining and the wider social relations in which decisions about land and trees and embedded (Leach 1991: p.19).

The WED approach understands the gender division of labour to be about identifying who uses which forest products – the nature of work; but GAD's approach is directed by social relation of gender class and so on and is maintained through power and authority of patriarchy. It could be argued that WED is a useful strategic discourse arguing for the involvement of women in environmental projects in a way that is persuasive to policy makers (Li, 1996). But important dimensions of gender concerns regarding forest use are currently hidden in the WED approach and in the kinds of understandings promoted as significant in JFM. Adopting a GAD approach will

involve changing policy framework that are grounded in WED, redefining the kinds of understandings needed for gender-sensitive planning, and establishing how, to monitor changing gender relations in the context of JFM. The aim of gender sensitive planning for JFM should be to find ways in which women can institutionalize the few bargaining strength they have and in working out leverages and incentives that would insure a voice and space for the most marginalized groups within decision-making processes (Shah and Shah, 1995: p.81-82). Within gender planning for JFM, this trend has translated into a preoccupation with formal provisions for women's participation in local forest management institutions, and with the necessity of identifying women's preference for forest resources and their knowledge and values about forest resources.

#### **II** Review of Studies

As to the formal provisions for women's participation in JFM, within the various policy statements of the Indian Government, rhetoric about women's role in JFM is minimally present (Locke, 1999: p.239). The water-shed 1988 National Forest Policy asserted that one of the basic objectives was 'creating a massive people's involvement with the involvement of women (The Ministry of Environment and Forests, MOEF, 1988). This is the only non-bracketed mention of women. The 1990 circular make no mention of women specifically and refer only to beneficiaries (MOEF, 1990). At the national level in official statements of policy, women are seen as undifferentiated and marginalized category whose inclusion in JFM merits a clause. The token reference to women in these documents largely reflects the accommodation of the Indian State to multiple political pressures, including those from national and international activities and downers, and has justifiably been labeled as 'gender-biased' (Arora, 1994: p.695).

Marking a sharp departure for the past, JFM is a direct outcome of 1988 National Forest Policy, which acknowledges the dependence of the rural poor on forest resources for survival. This policy extolled the virtues of people's participation in development and conservation of forestland. In forestry, this process is also found elsewhere in Asia (Hobley, 1996, Lynch and Talbot, 1995). But, India's Join Forest Programme furnishes as an exceptionally good example of an attempt to turn their concept into reality (Sundar and Jeffery, 1999). Orissa was the first state that passed the first resolution on the subject in 1988, followed by West Bengal in 1989.

In India, JFM programme, implemented through a June 1990 Ministry of Environment and Forests (MOEF), Government of India circular, is to a large extent based upon the successful experience of joint management in Arabari hills in Midnapore district of West Bengal, which have

demonstrated beyond doubt that local communities can protect forest patches near their villages and that the forest department too can work with the people if it wants (Mitra, 1997). The key precursor to JFM, from a managerial perspective, was a local-level initiative, dating from the early 1970s, in the Arabari hills in West Bengal. In Arabari, a forest officer worked outside the official rules in an attempt to protect experimental plantation. He discovered that by offering to share the benefits of the regrowth of trees, his own interests in protection could be met (Sivaramkrishnan, 1996a; Sundar and Jeffery, 1999).

But the small amount of information that is available regarding the outcome of JFM for women is disheartening women are commonly excluded or unable to participate in community institutions for JFM (Jewitt 1995, Hobley, 1996). The Overseas Development Administrations (ODA) review of their participatory forest management projects confirm that in India trends in quality, accountability and scope of local decision-making are negative with poor involvement of women and marginalisation of forest dependent groups (Bird, 1996: Annex 2, Table 2). Debates over formal provisions of membership are removed from the realities of effective political representation where male foresters and male villagers have a common interest in perpetuating women's visibility (Arora, 1994: p.695). In the central Himalayas women are 'effectively conscripted' to forest committees in order to fulfill the formal requirement of JFM resolutions (Britt-Kapoor, 1994: p.11)

Individual state resolutions and project policies in JFM 'lack clarity regarding the role of women' in JFM. The resolution of some states stipulates that one adult representative per household may be a member of the general body of the local forest management institutions. Although some resolutions add the qualification that this may be either a man or a woman, in practice it is usually a man (Locke, 1999: p.240). Some resolutions stipulate the inclusion of one male and one female member from each household in the general body and a compulsion to include at least two women members in the executive body (Kameswari, 2002).

There are five major constraints to women's formal participation in JFM initiatives which result in their exclusion from the decision-making process– traditional rule, social and cultural barrier, limited experience of women in public speaking (e.g. illiteracy), logistic constraints like time and double work burden and preference of male members by the male forest department staff involved in JFM (Agarwal 1997). In the context of Karnataka's JFPM programme, Correa (1996) observes how formal provisions are distorted due to lack of gender sensitivity on part of forest department staff. Despite formal provision of involving women in JFM activities, the actual

functioning of Village Forest Committees (VFCs)/ FPCs restricts them to the role of passive receivers of information related to JFM (Kameswari, 2002: p.800).

Correa's field survey (Correa, 1999) in Uttar Kannada suggests that at every stage of Joint Forest Progamme Management (JFPM) process participation of women was practically non-existent due to three main points.  $1^{st}$ , Although there was official report on participation of women, the active participation of women was limited to cooking the meals of official staff. 2<sup>nd</sup>, the minutes of meeting systematically excluded the views of any women who might have attended the meeting (Kameswari, 2002: pp.98-99). 3<sup>rd</sup>, women who were the members of the managing committee did not know anything about JFPM: they did not know anything of her belonging member of the managing committee; nor were they practically concerned about the fact that they have to carry out the conclusions of its deliberations. Furthermore, it was also observed that women resigned from executive body of Village Forest Committee (VFC) as her husband did not approve of her taking part in public activities and beat her up whenever she came to attend the meetings of the executive committee (Kameswari, 2002: p.799). Such incidents not only undermine the confidence of the women to express their views in JFM committee meetings but also set precedents for sidelining them during future decision making. This paper thus attempts to examine the extent of women's involvement in Forestry and their role in JFM in West Bengal where the successful experience of JFM acted as the key precursor to turn the concept of JFM for India.

#### **III** The Data Set and Findings

This paper is based on secondary data on State Forest Report Published from Directorate of Forests, Government of West Bengal and the Official Records of the Directorate for the years from 1989 to 2000. It also uses a Report of a Case Study executed by the Directorate of Forest in 1994 relating to extent of Women's involvement in Forestry on Non-Timber Forest Products (NTFPs) in West Bengal. The major constraints, among others, of these secondary data are that some indexes of the contents that are published in one year remain unpublished for some other subsequent years. These limit for the researchers to represent time-series data of any index in standard econometric analysis. Despite these limitations, we have attempted to examine the extent of women's involvement in Forestry in NTFPs and their role in JFM in West Bengal. The procedures like absolute numerical value, simple proportions, compound growth rate, averages are employed to achieve the stated objectives of this study.

The joint management (JFM) in West Bengal has its origin in the success achieved in rejuvenating a patch of 17 hectares of degraded forests under a pilot project implemented during 1972 near Arabari in Midnapore district. About 618 families living in 11 villages lying in the fringe voluntarily protected these forests when in return they were assured provision of fuel wood and fodder from the regenerated forest and employment in forestry activities. In 1987, these villagers were also declared as beneficiaries for these rejuvenated forests and granted 25% share from the revenue earned from final harvest (State Forest Report, 2000).

Despite its early success, the JFM in West Bengal gathered momentum in 1989 (dated the 12th July, 1989) when Government Orders had issued to formalize the Forest Protection Committee (FPC) wherein the duties and responsibilities of the FPC members, usufructuary and other benefits to which they would be entitled had been laid down. But the amended State Resolution on JFM does not make explicit mention of women as an independent entity; the membership is either Joint or Male/Female. Moreover, according to the State Resolution, the executive committee of FPC does not mention a minimum representative from women category; rather it was stated that the number of member under elected representative of the beneficiaries would not exceed 6 in the executive committee. Beyond this, the resolution in silent on women's separate role and involvement in committee formation, micro-planning, site selection, protection, benefit sharing etc. Consequently, women, who by her nature of work (WED) and on the basis of her spiritual content (Ecofeminism) are very 'close to nature, lose an important opportunity to participate actively under formal institutional framework in JFM movement in West Bengal. This seems to support the argument of Locke, 1998, which remarks that as to formal provisions for women's participation in JFM, within various policy statements of the Indian Government rhetoric about women's role in JFM is minimally present.

That women's involvement in forestry is more significant than men seems to be obvious from the report of survey executed by the Forest Department, Govt. of West Bengal in 1994. As may be seen in table 1, activities related to NTFP like Gathering, Marketing, female's involvement is dominant or even Cent Percent (activities related to Processing), but in Consumption of NTFP both men and women consume in same proportion. Turning to table 2, regarding the gathering of NTFP, women's involvement is more pronounced than man. Man's involvement is higher than women's in such an item (like medicinal item of NTFPs), which requires minimal physical labour. These finding might suggest the theoretical explanation of WED, suggesting that women are very 'close to nature' for the nature of their work, on the one hand and supports the explanation of GAD,

based on unequal division labour and gender relations supporting, current social roles as established and maintained through power and authority of men and the women's well-being is of secondary importance to that of men on the other.

To crystallize the idea of JFM in West Bengal that started in 1989 after the issue of Govt. JFM resolution, the FPCs were set up first in the degraded forest areas of South West Bengal in the districts of Bankura, Midnapore, Purulia, Birbhum and Burdwan and gradually it was extended to other parts of West Bengal with the participation and involvement of the local people living in the fringe of the forests Table 3 supports these facts. It shows that although the compound growth rate relating to the Number of FPC, Area under Protection (in hectares), Number of FPC members and Forest Land-man ratio was much lower for the areas of North West Bengal in the district of Jalpaiguri, Cooch Behar and Darjeeling and one district of South West Bengal – 24 Parganas than the areas of South West Bengal between 1993 and 2000, the initial status of FPC in 1993 was much higher for former districts (i.e. the areas other than South West Bengal.

Concerning to the area of Women's involvement in JFM committee, Table 4 shows that women's involvement in the JFM committee is insignificant as compared with man's in almost all the districts of West Bengal. This in, mainly, due to the fact that as the amended State Resolution on JFM does not explicitly mention of women either in the FPC or in the Executive committee of FPC, the Forest Department Personnel are not usually interested in motivating women to participate in JFM. Their prime importance seems to relate to the formation of committee, irrespective of gender. It should be mentioned that despite formal provision for involving women in JFM committees (VFCs) / FPCs restricts them to the role of passive receivers of information where men are active senders, of information related to JFM (Kameswari, 2001). This dichotomy of an active male sender and passive female receiver derives strength from the existing social norms and cultural values and in turn strengthens the existing gender disparity (Moitra 1996).

As to the payment of usufracts to FPCs, usufructs from there forests began to flow, after protection of these forests by FPC members for a continuous period of 5 years, from the year 1996 when the distribution of usufracts from harvest was made in the month of October and 25% share of the final yield from the harvest were paid as usufracts to a small proportion of FPC members, taking household, **and not women**, as a unit of beneficiaries. Since then such usufracts are being paid to the FPC members from the revenue earned from regular and final harvest of these rejuvenated and matured forests. Table 5 shows that the payment of usufructs is almost confirmed to the

beneficiaries of some FPCs in Midnapore and Bankura districts; but the significant majority of FPC and their members are out of the scope of the payment of usufracts.

Thus, understanding that women are being deprived of their equal constitutional rights to benefits accruing from the forest, efforts have been made very recently by the Forest Department, Govt. of West Bengal to establish new management system of Female EPC in West Bengal. To this end 17 Female FPC has been established, primarily, only in Bankura district in West Bengal. It has been extended to all the three Forest Divisions of the district, though the payment of usufracts to the members of Female FPC has not started up to the present time. Table 6 shows that although compared with FPC, the number of Female FPC as well as the member of FPC is insignificant in Bankura district, the movement that has been started by the Government effort seems to motivate women who can function as an important control group in their own FPCs in a large scale in Forest Management in all areas of West Bengal in future.

## **IV Conclusion**

The experience of West Bengal relating to the extent of women's involvement in Forestry and their role in JFM suggests that despite women's greater involvement in forestry in NTFPs, they are commonly excluded from participating in community institutions for JFM. State JFM Resolution does not make explicit mention of women as an independent entity; nor does it mention a minimum representative from women's category. Beyond this, the resolution is silent on women's separate role and involvement in committee formation, micro planning, site selection, protection, benefit sharing, etc. Women's insignificant role is also reflected in JFM Committee. These findings might suggest the theoretical explanation of WED and Ecofeminism which accept women's 'closeness' with nature on the basis of female biology or the nature of women's work (Jockes et al. 1994) on the one hand, and the explanation of GAD, which is based on unequal division of labour and gender relations suggesting current social roles as established and maintained through power and authority of men in which women's well-being is of secondary importance to that of man (Locke 1999), on the other.

But the theoretical line of argument thrown up by the WED, Ecofeminism and GAD approaches respectively, argue for GAD approach in which gendered bargaining processes will be enacted and contested (Sundar and Jeffery, 1999, Locke, 1999). GAD's approach is firmly based on the analysis of actual gender relations in which gender-sensitive planning for JFM should be to find ways so that women can institutionalize the bargaining strength they have. The setting up of Female

FPC in some areas of West Bengal very recently is an attempt, which supports these theoretical explanations. This new attempt seems to motivate women who can function as important control group in their own FPCs along with their own management system that would ensure a voice and space for this most marginalized group within decision-making process. Added to this, as the main victims of environmental degradation, women would be the most appropriate participants in environmental conservation under their own management system of micro planning.

[As the tables used in this paper are not available here in soft version readers are requested to consult with the published version by searching the journal. The authors, however, will add the tables in soft version shortly]

#### Note:

 The old custodial forest management systems developed were rendered ineffective in the fifties and sixties of the twentieth century due to various reasons. The major reason being traditional emphasizes on production on commercial wood and disregard for local need.

#### **References:**

- Agarwal, B. (1992): 'The Gender and Environment Debate: Lessons from India'. *Feminist Studies* 18 (1): 119-58.
- "-----" (1994): 'Gender, Resistance and Land: Interlinked Struggles over Resources and Meanings in South Asia'. *Journal of Peasant Studies* 22 (1): 81-125.
- "-----" (1997): 'Environmental Action, Gender Equity and Women's Participation'. Development and Change 28(1): 1-44.
- Arora, D. (1994): 'From State Regulation to People' Participation: Case of Joint Forest Management in India', *Economic and political weekly* 29(12): 691-98.
- Bird P. (1996): ODA's Review of Participatory Forest Management: Synthesis of Findings. ODA Review Working Paper 6, London.
- Britt-Kapoor, C. (1994): A Tale of Two Committees: Villager Perspectives on Local Institutions, Forest Management and Resource Use in Two Central Himalayan Indian Villages. Overseas Development Institution Rural Development Forestry Network Paper 17a, London.
- Correa, M(1999): The need for Emancipatory Research : Experiences from JFPM in Uttar Kannada' in Jeffery, R and Sundar N (eds), A New Moral Economy For India's Forests? Discourses of Community and Participation. Sage Publication, New Delhi.
- Hobley, M. (1996): *Participatory Forestry:* The Process of Change in India and Nepal. ODI Rural Development Forestry Study Guide 3.

- Jackson, C. (1993a): 'Doing What Comes Naturally? Women and Environment in Development', *World Development* 21 (12): 1947-963.
- Jackson, C (1993b): Environmentalisms and Gender Interests in the Third World', *Development and Change* 24 (4): 649-77.
- Jackson, (1993c): 'Questioning Synergism: Win-Win with Women in Population and Environmental Policies?' *Journal of International Development* 5(6): 651-68.
- Jeffery, R. and Sundar, N (1999): A new Moral Economy For India's Forests? Discourses of Community and participation, Sage Publication, New Delhi.
- Joekes, S., N. Heyzer, R. Oniango and V. Salles (1994): 'Gender, Environment and Population', *Development and Change*, 25(1).
- Kameswari, V.L.V. (2001): 'Gendered Communication and Access to Social Space: Issues in Forest Management, *Economic and Political Weekly*, Feb.23.
- Leach, M. and C. Green, (1995): 'Gender and Environmental History: Moving Beyond the Narratives of the Past'. Contemporary Women-Environment Policy Debates, Sussex.
- Lichbach, M.I. (1996): West Bengal Joint Forestry Management Project. London: Overseas Development Administration Report on an Orientation Visit to the Indian Forestry Field Management Office.
- Locke, C. (1999): 'Gender Policy in Joint Forest Management' in Jeffery, R. and Sundar, N. (eds) A New Moral Economy For India's Forests? Discourses of community and Participation, Sage Publication, New Delhi.
- Lynch, O.J. and K. Talbott. (1995): *Balancing Acts: Community-Based Forest Management and National Law in Asia and the Pacific.* Washington, D.C.: World Resources Institute.
- Mayoux, L. (1995): 'Beyond Naivity: Women, Gender Inequality and Participatory Development', *Development and Change* 26 (2): 235-58.
- Mies, M. and Shivea, V. (1997): Ecofeminism in Feminism: Oxford Readers Ed by Kemp, S. and Squires, J.P.
- Mitra, A. (1997): 'Joint forest Management: Case studies' Yojana, August.
- Moitra, S. (1996): 'Wemen, communication and Science: Identity Question' Economic and Political Weekly 20 (8).
- Quiggin, J. (1993): 'Common Property, Equality and Development', World Development 21 (7): 1123-138.
- Razavi, S. and C. Miller (1995): From WID to GAD: Conceptual Shifts in the Women and Development Discourse. UNRISD Occasional Paper-1.
- Rocheleau, D., B. Thomas-Slayter and E. Wangari (1996): Gender and Environment: Feminist Political Ecology Perspective', in D. Rocheleau, B. Thomas Slayter and E. Wangari (eds), *Feminist Political Ecology:* Global Issues and Local Experiences. New York: Routledge.

- Sen, A. (1987): *Gender and Cooperative conflicts*. World Institute for Development Economics Research Working Paper 18.
- Shah, M.K. and P.Shah, (1995): 'Gender, Environment and Livelihood Security: An Alternative Viewpoint from India', IDS Bulletin 26, 75-78.
- Tinker, I. (1994): 'Women and Community Forestry in Nepal: Expectations and Realities', *Society and Natural Resources* 7 (4): 367-81.
- Watson, J.J. (1989): 'The Evolution of Appropriate Resource Management Systems', in F.Berkes (ed.), Common Property Resources: Ecology and Community-Based Sustainable Development. London: Belhaven Press.

*Debnarayan Sarker* is Professor of Economics at the Centre for Economic Studies, Department of Economics, Presidency College, Kolkata, India.

*Nimai Das* is Research Fellow of Economics at the Centre for Economic Studies, Department of Economics, Presidency College, Kolkata, India.

Address: Centre for Economic Studies, Department of Economics, Presidency College, 86/1 College Street, Kolkata - 700073, India.

[Email: sarkar\_d\_n@rediffmail.com, nimai\_econ@rediffmail.com]