Introduction

Gender, environment and sustainable development: understanding the linkages

The accelerating degradation of the living environment is the latest and, in many ways, the most dangerous of the threats women face. (Dankelman and Davidson 1988)

Do gender, environment and sustainable development have any specific relationships? Do we need a gender-specific approach in natural resources management and sustainable development? This book will look at these questions through a number of studies from different regions in the world: the West African paper describes the relationship between women and land rights, the study from India looks at a gender approach towards water management, whereas the one from Uganda focuses on a gender approach to wetlands management. The article from Pakistan underlines the need for a gender-differentiated participatory approach towards natural resources management, involving both men and women. Finally, the case from Central America shows clearly how gender has been mainstreamed in environmental policies in that region. These five papers are complemented by an annotated bibliography which lists and reviews literature on this subject worldwide. But first, this introduction will describe the historical developments and main streams of thinking relating to women, gender and environment.

Historical overview

The environment became an area of major socio-political focus during the past 40 years. Interest in the environment grew, not because people started to care so much about it and valued its functions, but because of the increasing seriousness of environmental problems. These problems became more and more visible; first to some individuals – like the biologist Rachel Carson, who wakened the world to the urgency of the situation with her book *Silent Spring* (Carson 1962) – and later to society at large, including to policymakers. Until the 1960s, the environment was the exclusive research area of the natural sciences, whereas human interactions in society were studied mainly in the social, policy and historical sciences. The environmental and social spheres of life seemed to be completely separated. Only a few researchers tried to bridge this gap, for example in studies of people's interaction with the physical environment by both anthropologists and production scientists, including forestry and agricultural scientists.

Women and the environment

That the relationship between people and the environment is not gender-neutral became clear in the mid-1980s. Some organizations, focusing on the day-to-day lives of communities, argued that the position and concerns of women were invisible in environmental debates and programmes. The Centre for Science and Environment (CSE),

based in New Delhi, India, in their *The State of India's Environment Report – or the Second Citizens Report of 1984-1985* argued that:

Probably no other group is more affected by environmental destruction than poor village women. Every dawn brings with it a long march in search of fuel, fodder and water. It does not matter if the women are old, young or pregnant: crucial household needs have to be met day after weary day. As ecological conditions worsen, the long march becomes even longer and more tiresome. Caught between poverty and environmental destruction, poor rural women in India could well be reaching the limits of physical endurance. (CSE 1985)

In that same year of 1985, the second UN Decade for Women Conference was held in Nairobi, Kenya. The Environment Liaison Centre (presently the Environment Liaison Centre International or ELCI) organized a series of workshops on women, environment and development at the NGO Forum. These workshops were aimed at developing a better understanding of the relationship between women and the physical environment. More than 25 women leaders from all parts of the world - with an audience of women and men many times more - presented their local and regional case studies on women and the global environmental crisis, as well as on women and forests, energy, agriculture, and water management at local level. One of the main conclusions from the workshops was that women bear the highest costs of the environmental crisis because of their roles in providing water, food and energy at family and community levels. On the other hand, it was shown that women could potentially also make a large contribution to the solution of the crisis, precisely due to their role in the management of those primary resources. The increase in women's power and the sustainability of development are ecologically tied. It is therefore imperative that women are enabled to participate and be involved at all levels of development planning throughout the industrialized and developing worlds, according to the ELC statement to the UN Women's Conference in 1985.

Alliance for the future

One of the recommendations of these workshops was to give more visibility to the practical relationships between women and their physical environment. That is why a project started in 1986 to collect as much information on these aspects as possible, resulting in the book *Women and environment in the Third World: alliance for the future* (Dankelman and Davidson 1988). The authors argued that developments in the past two centuries have had a negative impact on the position of local communities, particularly women, worldwide. These developments include: Western colonization; increasing dependency on the Western capitalistic economy; the introduction of new, poorly adapted technologies, including agricultural modernization; the sharpening global division of labour; and increasing fundamentalism. The book describes the different roles that women have in the management of land (including food production), water and forests (as fuelwood, food and fodder), energy and human settlements. In many societies, food gathering was originally a female responsibility. According to feminist contentions, for example in the writings of Ester Boserup (1989), it is argued that it was 'woman-the-gatherer' who was a source of sustainable food supply and not 'man-the-hunter'. Women,

dealing with vegetable foods and wild seeds on a daily basis, probably began the experimentation with planting seeds which played a major role in the revolutionary innovation from hunter gathering to agriculture. Environmental changes, in particular decreases in the quantity of natural resources and biodiversity, as well as a worsening environmental quality, strongly affect women's lives, adding to their workload and worsening their health and social position.

Women and environmental management

Women have, however, played a significant role in environmental management and sustainable development, working for conservation, promoting training efforts, and organizing themselves at local, national and international levels. This is not a new phenomenon. In the 18th Century, women under leadership of Amrita Sen were actively involved in the environmental struggle for survival in Gujarat, India. When Cape Verde was struck by severe droughts at the end of the 1970s, women grew 500,000 seedlings per year. The women's organization in Brazil, Açao Democraticá Feminina Gaúcha, which focused on social and educational issues, put environmental issues high on its agenda from 1974 onwards, leading to the formation of Friends of the Earth Brazil (Dankelman and Davidson 1988).

In her article on ecological transitions and the changing context of women's work in tribal India, Menon (1991) describes work as the active, labour-based interaction of human beings with the material world. Historically, this interaction has been intricately based upon the natural environment in which human populations survived. Menon distinguishes major areas of human work: food procurement; the protection of life, property and territory; and childbearing and rearing, including maintenance of basic health standards. Many traditional economies were based on a division of labour along gender lines. This means that in work, women have a direct connection to the environment.

Since the late 1980s, a myriad of studies has been published describing the role that women play in specific environmental sectors, such as water, energy, forests, human settlements and nature conservation. Even in areas which are considered more technical, such as climate change, a gender perspective is very relevant, demonstrated by the recent book edited by Rachel Masika *Gender*, *development and climate change* (2002). Other publications focus on specific geographical contexts, such as gender and sustainable development in Latin America, Africa and the Asia Pacific region, as well as countries in transition, Europe and North America. Finally, several studies have been published with a more global perspective or theoretical background.

Gender and environment

The publications mentioned above focus on women as a major social group and their relationship with the environment. However, several writers such as Braidotti et al (1994) and Agarwal (1998) argue that women are not a single homogenous group and that it is important to address the actual material relationships of different groups of women with

nature and the environment. Determining factors are class and caste, ethnicity, kinship, age, country and socio-cultural affiliation. Even within one village, women of different classes and castes may have very different positions and roles (Hermens 1998). The same applies to women living in rural or urban areas. The position of a tribal, nomad woman can be completely different to that of her female neighbour from a sedentary family. To examine these differences is as crucial as looking into the differences between women and men (Kelkar and Nathan 1991).

The insight increasingly caught hold that it is not enough to look at the position of women and the environment in isolation. Power relations between both sexes are determining factors so a shift towards an analysis informed by gender took place. Sociological indications of comparative relations between the sexes, and the interdependent nature of women's and men's positions in society were demonstrated. The current Gender, Environment and Development (GED) approach is not only concerned with women, but with the social construction of gender and the assignment of specific roles, responsibilities, and expectations to women and men. Gender was found to be a distinguishing factor in determining human relationships with the physical environment and sustainable development.

Access to and effective control over natural resources of good quality, such as land, water and forests, are important indicators of gender position. The use and management of these resources is also differentiated by gender. Other critical factors are access to and control over other means of production, including income and credit; appropriate technology; training and education; housing; active participation and involvement; decision making power and social status; and freedom of organization. These critical factors differ between the sexes, and play a role at micro-, meso- and macro-levels of society.

Later in this publication, Ahmed warns that the rhetoric of women's roles as *naturally privileged* water managers tends to overlook the divergent needs that women and men have in relation to water. She stresses that there is widespread understanding of the impact of water scarcity on women's health, on the drudgery of water collection, and on girls education. However, women have little voice in water resource planning. Based on her study on wetland management in Uganda, Sengendo argues that in order to reach sustainable development, differences in resource management, based on differentiated gender roles, needs and responsibilities as well as power dynamics, should be considered.

Ecofeminism

Agarwal (1998) suggested the concept of 'feminist environmentalism', insisting that the link between women and the environment should be seen as 'structured by a given gender and class/caste/race organization of production, reproduction and distribution'. She speaks of class-gender effects of environmental change, and underlines the need to transform the actual division of work and access to resources. If the quality or quantity of the resources upon which the managers – often women – depend are degraded, this effects their work and the energy which is needed for management, restricting other

development options. The class-gender effects of environmental change are manifested as pressures on women's time, their income, their nutrition and health, their social support networks, and their knowledge. Women's position can be improved by more control over resources, re-distribution of roles and tasks, a shift in stereotypes, and a healthier and more productive environment.

Agarwal's approach is similar to what Rocheleau (1995) has called 'feminist political ecology'; both emphasize material relations and their structuring by gender and power relationships. Moreover, several studies underline the need for a rights-based approach to gender, environment and sustainable development (NEDA 1997). In this book, Hilhorst explores the nature of women's rights to resources – such as land and trees -, to what extent these are changing and what options women have for securing their claims in West Africa. Security of access – either customary or formal - are important incentives for natural resource management and so women are increasingly keen to try and strengthen their claims over land. In this book Hilhorst warns, however, that these rights may be weakened when the resources women are using become more valuable due to commercialization. This is especially relevant in a globalizing world.

In his book on sustainable livelihoods, Neefjes (2000) distinguishes several critical factors that determine gender and environmental relationships:

- the gendered division of labour and responsibility;
- gendered positioning in households, communities, and other institutions;
- gendered property rights;
- the influence on gender relationships and gender-environment relations of the wider political economy; and
- ecological characteristics that determine the processes of gender and environmental change.

Sustainable development

Although coming from different roots (the environmental, the sociological and the developmental), GED is an important coalition theme that can build bridges between the different movements and schools, and can develop into a major countervailing power (Braidotti et al 1994). This is also becoming clear at global level. In the preparatory processes for the World Summit on Sustainable Development, held in Johannesburg, South Africa, on 26 August-4 September 2002, women's organizations from all regions worked together to determine the 'Women's Action Agenda for a Peaceful and Healthy Planet', and on many different themes, such as globalization, corporate responsibility, peace-building, and rights to resources. They also worked with other major groups, such as environmental and development NGOs, youth, human rights groups, indigenous peoples and trade unions. This process clearly showed the need to engender sustainable development policies and processes. Similarly, Aguilar has demonstrated in her chapter the results of a gender-specific approach in environmental policies at national levels in Mesoamerica. Such an approach not only resulted in a more equitable participation and benefits for both men and women but it also contributes to sustainable development.

Imran describes a project on environmental education in the Baluchistan village of Sagran. Women organized and participated as active subjects in the project and there was a marked change in attitude among men which facilitated women's participation. The paper implies that a gender-sensitive participatory approach benefits from increased understanding of circumstances, and of stakeholders and their requirements, even at the understanding of circumstances, and of stakeholders and their requirements, even at the local level. Sengendo argues that institutional capacity for gender responsive planning is a major factor in enabling sustainable natural resource management. Staff training in gender awareness, gender analysis and mainstreaming skills proved to be crucial factors in institutional strengthening in national wetland management in Uganda. Similarly, Ahmed argues that mainstreaming gender in water policy and institutional practice is both a technical and political process which requires shifts in organizational culture, both a technical and political process of learning and 'unlearning'. This publication can be of assistance in drawing lessons from examples of gender and sustainable development from different regions in the world.

Annotated bibliography and web resources

The bibliography contains 164 references to a selection of books, journal articles, book chapters, conference papers and electronic publications relating to women and gender in natural resources management. The bibliography is based on the collection of the Library of the Royal Tropical Institute (KIT). Each reference in the bibliography is complemented by an (English) abstract and can be searched/accessed using indexes (by author, subject and geographical location). Photocopies of all the articles and smaller books (up to 100 pages) can be obtained from the Library of the Royal Tropical Institute (see Guide to the bibliography).

The bibliography is followed by a web resources section, comprising the Internet addresses of gender websites and links to relevant full-text electronic documents. Given the nature of Web publishing, these documents may not be permanently available at the location given. Photocopies of documents that are no longer available can be obtained from the KIT Library.

References

Agarwal, B., 'The gender and environment debate'. In: Keil, Roger et al. (eds), *Political ecology: global and local*. London, Routledge, 1998.

Barrig, M. and A. Wehkamp (eds), Engendering development: experiences in gender and development planning. The Hague, Novib, 1994.

Braidotti, R. et al., Women, the environment and sustainable development: towards a theoretical synthesis. London, Zed Books, 1994.

Boserup, E., Women's role in economic development. London, Earthscan, 1989.