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Women and the Environment

Women's role in ecological struggles and debates since the nineteenth century, as with all women's social and political involvement, has been 'hidden from history' (Rowbotham 1973). Histories of ecology in the North credit the German Ernst Haeckel with naming the subject in 1873 (Bramwell 1989), while the contribution of his contemporary, the American ecologist and educationalist Ellen Swallow, is largely ignored, although she equally could be claimed to have founded the science of ecology (Clarke 1973; King 1983a). It is also interesting that while Haeckel chose a name based on the Greek *oikos* meaning household or dwelling, it was Ellen Swallow who showed the direct connection between daily domestic life and the environment (Hynes 1985).

In the early 1870s Ellen Swallow was the first woman student to be admitted to the Massachusetts Institute of Technology (MIT) and she stayed on to become its first woman instructor. She was multidisciplinary; a water chemist, industrial chemist, metallurgist, mineralogist, engineer and expert on food and nutrition. Her aim was to understand the environmental dynamics of industrialization and to provide the community, particularly women, with the expertise to monitor their own environment. She established a laboratory for women at MIT in 1876 and an interdisciplinary education programme. She lobbied government for a nutrition and pure food programme and did much to reduce hazards in industry. For Swallow the importance of educating women was that the home, even more than the workplace, was where primary resources such as nutrition, water, sewerage and air could be monitored. She argued

that science should be placed in the hands of women so that 'the housekeeper should know when to be frightened' (ibid.: 292). Swallow's unique and far-sighted initiatives were not appreciated by a science establishment that was rapidly segmenting into distinct disciplines. Even less understood was her insistence on working with women. As a consequence, her pioneering multidisciplinary work with women has entered the history books as 'domestic science'.

Almost a hundred years later another woman scientist in the United States was one of the key figures in pioneering the green movement of the late twentieth century. Rachel Carson, a marine biologist and scientific journalist, published her warnings of the danger of pesticide and herbicide accumulation in 1962. In very much the way that Swallow envisaged, Carson was inspired to write her book *Silent Spring*, by the observations of a woman friend, who claimed that aerial spraying of DDT was killing songbirds and robins in her garden. Carson argued that herbicides and pesticides would accumulate through the food chain, so that chemicals spread on crops would poison the birds and animals (including humans) that fed on them directly or indirectly. The death of birds that had fed on chemical-laden plants and insects would result in the silent spring of the title. She pointed out that such chemicals never disappeared; instead they would build up in water and soil, often carried far away from the spraying site. Although Carson did not articulate an explicitly feminist or ecofeminist perspective, her critique of scientific approaches to the natural world presaged later ecofeminist critiques: 'as man proceeds toward his announced goal of the conquest of nature, he has written a depressing record of destruction, directed against not only the earth he inhabits but against the life that shares it with him' (Carson 1985: 83).

The government's and chemical industry's response to Carson's warnings was to mock her as an emotional fanatic, a spinster in galoshes who worried about birds. As Hynes points out, Carson's science arose from a love of nature that inspired her to write 'compelling, imagistic' poetic prose (1985: 296). Male-dominated science could not accept the idea that love and knowledge were compatible and mutually supportive (Rose 1994). However, Carson's work was not silenced, and its importance has been acknowledged on many occasions by the growing ecofeminist movement, particularly in the United States. Conferences were held to celebrate the twenty-fifth anniversary of the publication of *Silent Spring*, and a leading ecofeminist anthology was dedicated to the memory of Carson as a 'remarkable and modest woman' who thought that loving the natural

world was essential to understanding it (Diamond and Orenstein 1990).

Another early critic of western technology, particularly in the field of development, was **Barbara Ward**, a British-born academic. Ward evoked the image of 'spaceship earth' in 1966 and was an early critic of the adverse effects on the South of the modernizing push towards worldwide economic development. Pointing to the interdependence of the world's peoples, she argued that economic changes needed to be morally justified and should show how change could be managed in such a way as to conserve the natural environment at a planetary level. Barbara Ward's work had a major impact at the international level, inspiring the United Nations to hold a conference on Human Settlements and to development of the UN Environment Programme. The UN commitment not only reflected the work of Ward, who, with René Dubos, published the influential *Only One Earth* in 1972, but was also a response to the growing alarm about the limits to economic growth that were indicated by computer projections on issues such as natural resource reserves and pollution as well as the highly contentious area of population (Meadows et al. 1972; Sen 1994).

While women such as Rachel Carson and Barbara Ward were putting ecological questions on to the national and international agenda, certainly in the North, women across the globe were doing what Ellen Swallow had envisaged one hundred years before. They were expressing concern about the ecological degradation within their own communities. Ecology, a word derived from the Greek for household, was coming 'close to home' (Shiva 1994a).

Grassroots struggles

The grassroots environmental movement expands our sense not only of what is possible, but of what is necessary. It is a movement that is fuelled by persistence, resistance, stubbornness, passion and outrage. Around the world, it is the story of 'hysterical housewives' taking on 'men of reason' – in the multitude of guises in which they each appear. (Seager 1993: 280)

In the past twenty years, grassroots campaigning around the ownership, control and use of the environment has taken on the 'men of reason' from the Amazon basin to the Himalayas, and from Kenya to the United States (Epstein 1993). In the South, feminist critics of the 'steam-roller' of technological modernization and global capitalism drew attention to the threat to both women and the environment from so-called 'development'. They showed how women were experien-

cing particular hardship, as commercial farming, logging and mining invaded their traditional way of life and they were drawn into highly exploitative and health-threatening forms of production (Mitter 1986; Mies 1986; Sen and Grown 1987; Shiva 1989).

In the North, the ecological dangers of industrialism and militarism became increasingly apparent and were highlighted through the campaigns of the peace and environmental movements, as well as through grassroots struggles. The peace movements in Europe and North America expanded rapidly in response to the NATO decision in 1979 to site cruise missiles in Europe. There was widespread concern not only about the immediate danger to human life from nuclear weapons and nuclear fallout, but also about the danger that atmospheric dust would cause a 'nuclear winter'. The developing **ecofeminist movement in the North had its roots in both the feminist and the peace movements. Ecofeminism in the United States was also galvanized in the late 1970s by the near disaster at the nuclear power station at Three Mile Island and the threat to health from toxic waste discovered at Love Canal, Niagara Falls, New York State.**

It is hard to say why particular examples of grassroots struggle become symbolic of a social movement when there are many examples of similar campaigns elsewhere (Merchant 1992; Ekins 1992; Seager 1993). However, certain struggles seem to illuminate issues and concerns that lie at the heart of those campaigns and the way in which women's relationship to the natural world has been both revealed and constructed through them. This is particularly true of the **Chipko** movement in the villages of the Himalayas, the **Green Belt** movement in Kenya and the **Love Canal** campaign in the United States. Shiva argues that '[e]nvironmental movements like the Chipko have become historical landmarks because they have been fuelled by the ecological insights and political and moral strengths of women' (1989: 67).

The Chipko movement

The forest is our mother's home, we will defend it with all our might. Women of the village of Reni in the Garhwal mountains of the Himalayan Range. (Anand 1983: 182)

The Chipko movement of the Garhwal Himalayas is probably the best recorded of the struggles that have come to symbolize the relationship between women and the environment (Anand 1983;

Dankelman and Davidson 1988; Shiva 1989; Jain 1991). Chipko (meaning 'hugging' in Hindi) gained worldwide publicity in the mid-1970s through the action of Himalayan villagers (mainly women) hugging trees to prevent them from being felled. The movement had some success in getting the Indian government to support a moratorium on tree-felling and pay attention to the need for broad-leaved indigenous trees to prevent soil erosion and support the subsistence economies of local villages. Chipko activists argued that commercial pine or eucalyptus plantations provided work for some villagers (mainly men), but did not meet the needs of women who were almost all involved in cultivation and relied on trees for fuel and fodder for animals (Shiva 1989; Jain 1991).

Despite the impression sometimes given that the Chipko movement emerged as the spontaneous action of women preserving trees (Sontheimer 1991; Ekins 1992), the movement has a much more complex political base. Its inspirational example was not the outcome of women's immediate physical and spiritual identification with the forest, but, rather, it grew out of a 'mosaic of many events and multiple actors' involving the long and purposeful struggle of politically committed followers of Gandhi in the region (Shiva 1989: 67-77). Shiva also argues that the origins of hugging as a means of protest goes back three hundred years to when a group led by a woman sacrificed their lives to protect a grove of sacred trees (*ibid.*: 67).

The exact date of the re-emergence of tree-hugging is difficult to discern. Anand dates it as 1974 in the village of Reni (1983: 182); Jain gives the date as 1973 and credits male co-operative workers with the re-invention of hugging as a means of protest (1991: 168); Shiva dates it rather later, when women became more central to the protests. Whatever the exact date, the origins of the Chipko movement lay in Gandhian organizations in the Garhwal region of Uttar Pradesh state in the Indian Himalayas. Mira Behn, a follower of Gandhi, had settled in the Himalayas in the 1940s and begun to study the ecology of the region. Other women, like Sarala Behn and Bimala Behn, started ashrams for the education of hill-women, bringing together the traditional relationship of hill people to their environment, the political and spiritual teachings of Gandhi, and the very immediate material needs of local women.

A second Gandhian link was to a co-operative founded in 1960, which, originally, employed men in construction work, but which from 1964 sought to develop forest industries such as sap-gathering and wood products. The co-operative found great difficulty in getting access to trees and was alarmed in April 1973 when the government

gave a private contractor permission to fell in the village of Gopeshwar. According to Jain (1991), a 100-strong protest prevented the cutting of the trees. A few months later, in June 1973, the co-operative workers supported another protest in a village 80 kilometres away, by joining hands around the threatened part of the forest.

Although in the early stages of the Chipko movement village men and women united against commercial forest development, their interests soon began to conflict. For Vandana Shiva this was the crucial stage in the movement. While the men were interested in gaining access to the forest for local village commercial development, the women wished to preserve the forest for their traditional subsistence needs and to guard against soil erosion. Shiva also sees the origins of women's opposition to cash-generating development in their struggles against male alcoholism in the 1960s. She argues that the decisive moment came in the village of Adwani when the headman's wife led the women to embrace the trees of the forest in opposition to her own husband who was the local contractor. It was at this point that the Chipko movement became 'ecological and feminist' (Shiva 1989: 76; italics in the original).

Shiva, who was trained as a nuclear physicist, was inspired by the actions of the women in the Chipko movement to abandon her original career and set up a Foundation for Science, Technology and Natural Resource Policy. She has campaigned worldwide not only for forest protection, but for recognition of the role of women in the wider defence of local environments on which they depend for firewood, forage and water. Her ecofeminism is based on the observation that for poor rural women of the South, their link with the natural world is the reality of their daily lives; all struggle is ecological struggle (Shiva 1989). In terms of this wider agenda Joni Seager argues that the Chipko movement 'now symbolizes Third World resistance to misdirected "international development" . . . [and] has come to symbolize a struggle for autonomy from the stranglehold that Western reductionist science has come to have on resource management' (1993: 266-7).

These struggles have highlighted the importance of the political role of women, which has begun to be recognized more widely in India itself, particularly in the peasant movements (Omvedt 1989). In Maharashtra state all-women village councils began to emerge in the 1990s, adopting for their campaign the slogan '*hirvi dharti, stri shakti, manav mukti*' (green earth, women's power, human liberation) (Omvedt 1994: 106).

Kenyan Green Belt movement

The Kenyan Green Belt movement has also provided inspiration for the wider ecofeminist movement. Again, the movement was not a spontaneous action on the part of women, but thousands of them were inspired in 1977 by the initiative of Anatomy Professor, Wangari Maathai, to launch a rural tree-planting programme. The first trees were planted on 5 June, World Environment Day. The Green Belt movement was always perceived as a women's programme and was organized through the National Council of Women. Its aim was to solve the fuel problem in rural areas, as well as preventing creeping desertification and soil erosion, by surrounding each village with a 'green belt' of at least a thousand trees. The movement provided the trees and a small sum to employ a local person to tend them.

Women responded readily, and hundreds of local women's tree-planting groups were set up. By the mid-1980s six hundred tree nurseries had been set up employing between two and three thousand women, and over a million trees have now been planted. Green belt schemes are also being established in twelve other African countries (Seager 1993; Ekins 1992; Merchant 1992). The global linkages of women's ideas and struggles is illustrated by the fact that Wangari Maathai cited Barbara Ward as a source of her inspiration (Jones and Maathai 1983). Maathai's initiative is also echoed in the United States by the work of Rachel Bagby in greening inner-city environments (Bagby 1990). Bagby has turned approximately five acres of derelict city land in a Black neighbourhood into garden plots and founded the Philadelphia Community Rehabilitation Corporation. Like Maathai, her aim is to combine a greening programme with wider aims of providing employment and education. A high political profile and involvement in radical struggle is not without its dangers, however. Wangari Maathai has been placed under house arrest in Kenya and was attacked and severely injured in the early 1990s.

Love Canal, United States

In the North, the campaign over toxic waste at Love Canal has had something of the same symbolic importance as the Chipko or Kenyan Green Belt movement in the South. It coincided with the nuclear accident at Three Mile Island power station in 1979 and heightened sensitivity to the inherent danger in industrial and high technology

production. The experience of the residents of Love Canal has come to represent the fears of people in industrial societies about the hidden dangers that surround them.

Love Canal is a blue-collar neighbourhood of about twelve hundred homes in the suburb of Niagara Falls, New York State. In 1978 one of the residents, Lois Gibbs, became concerned about the health of her neighbourhood when her son became epileptic and her daughter developed a rare blood disease. She then found that among her neighbours there was an unusually high proportion of miscarriages, stillbirths and birth defects. She believed that the problems were connected with the fact that the estate was built next to a dump of more than twenty thousand tons of toxic waste. It was eventually revealed that the estate had been built near the site of a mile-long trench, fifteen yards wide and from ten to forty feet deep. It had been dug originally in the 1890s as a grandiose scheme for a canal at around the time when Ellen Swallow was campaigning for an integrated approach to environmental issues. The abandoned canal trench was used for many years as a chemical dump, and when it was full it had been covered over and designated for building land. A school had been built right over the site (Hynes 1985). The chemicals had also leached into underground streams and were spreading into adjacent land, as had been anticipated by both Ellen Swallow and Rachel Carson.

When the state authorities refused to believe her claim that the health problems of her neighbourhood and the toxic waste dump were connected, Lois Gibbs led a two-year struggle for relocation. However, it was not until women had vandalized a construction site, burned an effigy of the mayor and been arrested in a blockade that government officials began to take notice. Even then Lois Gibbs found that her evidence of the ill health of her own family and those around her was not taken seriously until she got a scientist to put her 'housewife data' into 'pi-squared and all that junk' (Seager 1993: 265).

Women in other local campaigns also found themselves accused of being 'hysterical housewives' when they tried to raise issues about the dumping of waste. As one Black woman from the southern United States put it: 'You're exactly right, I am hysterical. When it comes to matters of life and death, especially mine and my family's, I get hysterical' (Newman 1994: 58). Involvement in grassroots struggles are politicizing increasing numbers of women. Seager calculates that, worldwide, women form 60–80 per cent of the membership of environmental organizations, although this is not always evident from the leadership profile (1993: 263–4). She also notes that most women

who become involved in grassroots movements have not been active before and often have to run the gauntlet of accusations of ignorance and hysteria not only from 'experts' and officials, but from their own male relatives.

Lois Gibbs falls into just this pattern. She recalls that she 'grew up in a blue collar community, it was very patriotic . . . I believed in government' (quoted Krauss 1993: 111). Gibbs 'wanted to have six children and be a homemaker. I moved into Love Canal, and I bought the American dream . . . I never thought of myself as an activist or an organiser. I was a housewife, a mother, but all of a sudden it was my family, my children, my neighbours' (Gibbs 1993: ix). Drawing on her experience of women in grassroots campaigns, she also notes the tensions that can arise in families where men feel that their role as protectors of the family is threatened:

In many families, the woman who becomes active is seen as a threat to the 'strong' male. He feels that he is losing control over 'his woman' and might feel that he is being outdone or 'outshined' by his mate, a problem that is exhibited if she is successful . . . Pressure begins to build on her as she tries to balance her commitment to the cause with the conflicting demands that come out of her (male) mate's emotional needs. (quoted in Seager 1993: 275)

Gibbs's experience at Love Canal and her disillusionment with the democratic process led to her setting up in 1981 a national network, the Citizens' Clearinghouse for Hazardous Waste (CCHW), which has supported over four thousand local community campaigns against toxic waste.

What is so special about women?

If it is true that women have a 'special' relationship to the natural world, and a special awareness of environmental hazards, does this apply equally to all women? And can it only be said of women? While women-based grassroots and activist campaigns are emerging across the world on many issues, not all explicitly make connections between women and the environment. Also, there is a large number of grassroots campaigns concerned with environmental issues that are not women-based (Ekins 1992; Merchant 1992). Whereas ecofeminist literature tends to stress women's involvement in grassroots environmental campaigns, green writers, who are predominantly male, tend to see these as indigenous or 'local' campaigns.

In the United States, for example, growing awareness of the dan-

gers of toxic waste has led to widespread concern about the siting of waste dumps in poor, Black and Hispanic neighbourhoods and on Native American lands. The United States has to dispose of the equivalent of 2,500 pounds of hazardous waste for every man, woman and child each year. One large dump that takes waste from forty-six US states is sited at Emelle, Alabama where 70 per cent of the population is African-American and almost all live below the official poverty line (Seager 1993: 274). This situation has led to a growing environmental justice movement, bringing together working-class, Black, Native American and other local communities in protest against the siting of toxic waste dumps and dangerous factories in poor neighbourhoods (Bullard 1990, 1993; Hofrichter 1993; Newman 1994). Nuclear contamination is also a problem. Winona LaDuke, co-Chair of the Indigenous Women's Network, which brings together Native American and Pacific Island women, reports that fifteen of the eighteen US nuclear storage sites are on Native American land, where also – mainly in Shoshone territory – all nuclear tests were carried out (LaDuke 1993: 99). Contaminated test sites have now been designated by the US government as 'National Sacrifice Zones' – a concept that obscures the fact that it is Native American nations that have been sacrificed.

When women play a major role in these movements, do they do so as women, or as poor, Black, Hispanic or Native American people? Even if women are over-represented among the poor, and disproportionately take part in grassroots struggles, particularly around communities, does this mean gender should be prioritized above class and racism? In the US anti-toxic social justice campaigns, even where women are at the forefront, their political identification is usually in terms of 'race' rather than gender (Epstein 1993). Bina Agarwal and Cecile Jackson have also expressed concern that an overemphasis on women's involvement in struggles such as the Chipko movement will give a false impression of a specifically feminist commitment, rather than women's involvement in peasant movements generally (Agarwal 1992; Jackson 1995). Agarwal is also concerned that an overemphasis on grassroots movements combined with a critique of western economic systems will ignore class and property relations within societies such as India. Rather than stressing a direct woman-nature relationship Agarwal argues that: 'the link between women and the environment can be seen as structured by a given gender and class (caste/race) organisation of production, reproduction and distribution' (1991, quoted in Braidotti et al. 1994: 100). For this reason Agarwal prefers the term 'feminist environmentalism' to ecofeminism.

Braidotti et al. join Jackson and Agarwal in being concerned that an uncritical celebration of grassroots movements would deflect attention from the inequality and oppressiveness, particularly towards women, in traditional communities. They criticize 'the tendency to idealize everything local and traditional while glossing over indigenous structures of exploitation and domination that were in place before the advent of development' (1994: 112).

An overemphasis on women may also obscure the fact that it is possible for women in more privileged communities to insulate themselves from toxic and other environmental hazards, at least in the short run. Local NIMBY (not in my backyard) campaigning by better off communities may not lead to NIABY (not in anybody's backyard) but a displacement of dangerous activities into poorer areas. Seager is also concerned that better-off women may deflect their concern into green consumerism, an activity that can easily be manipulated by shrewd marketing. If effective, green consumerism could lead to a new divide between the 'haves' and 'have nots' in terms of the environmental privilege of being safe from hazards in the home (1993: 262). Such concerns raise the central question of differences between women in relation to environmental hazards and environmental campaigning.

Seager, echoing Swallow, argues that women do have a key role *as women* in grassroots campaigning because they are often the first to become aware that something is wrong:

Women worldwide, are often the first to notice environmental degradation. Women are the first to notice when the water they cook with and bathe the children in smells peculiar: they are the first to know when the supply of water starts to dry up. Women are the first to know when the children come home with stories of mysterious barrels dumped in the creek: they are the first to know when children develop mysterious ailments. (1993: 272)

What is common to women's grassroots campaigns, North and South, is women's vulnerability to environmental problems and their lack of access to the centres of decision-making which cause them. While women are disproportionately represented in poor and vulnerable communities, men are disproportionately represented in positions of power and influence. This means that women (and many men) bear the consequences of government, military, industrial and commercial decisions without being in a position to influence them. Their response is always 'end-of-pipe', they are not in a position to know or influence what goes into the pipe in the first place.

When greens call upon people to think globally but act locally they often overlook the fact that it is women who *live* locally (Mellor 1992c) – they have little choice but to think locally. They live near the waste dump, the poisoned well or the factory belching smoke. It is women who have to walk miles for water or fuel if local resources are depleted, whose mobility is threatened by roads and traffic, whose children cannot play safely. It is women who nurse the young, the old and the sick when they suffer from environmental pollution or depletion. This point has been made by women from the North and the South at national and international conferences, forums and seminars (Merchant 1992; Women's Environmental Network 1989; Shiva 1994).

There are, however, some differences in the environmental issues that face women in the North and the South. In non-industrial societies problems revolve around access to clean water and other resources as well as issues of poverty and health (Asian and Pacific Women's Resource Collection Network 1989). In the North problems are not always so immediate or so visible. As Wangari Maathai has pointed out, while the women of the South are struggling against visible problems such as desertification and soil erosion, 'at the global level we are fighting an invisible enemy' (Jones and Maathai 1983: 114). In the South immediate survival needs are paramount, but in the North ecological damage is more hidden. It lurks in the air and the ground and, although its effects can be felt, particularly in health problems such as the rapid increase in asthma, the cause is difficult to prove and the sense of risk is therefore more diffuse (Beck 1992). Campaigns have to assemble scientific and other forms of evidence that are often difficult to obtain or subject to official or commercial secrecy. However, campaigns once launched can be remarkably effective, as in the case of the British Women's Environmental Network (WEN) campaign against the use of chlorine bleach in disposable nappies and other paper products, arguing that it led to dioxin residues in human bodies and particularly women's breast milk (Costello et al. 1989).

What is increasingly common to women's involvement in environmental campaigning is that it is being built into a coherent critique of the present model of development based upon scientific knowledge, industrial technology and the capitalist market economy. Campaigns around the environment are being brought together with campaigns around women's rights, health and economic well-being.

Women, environment and development

Economic development, that magic formula, devised sincerely to move poor nations out of poverty, has become women's worst enemy. Roads bring machine-made ersatz goods, take away young girls and food and traditional art and culture; technologies replace women, leaving families even further impoverished. Manufacturing cuts into natural resources (especially trees), pushing fuel and fodder resources further away, bringing home-destroying floods or life-destroying drought, and adding all the time to women's work burdens. (Devaki Jain, founder member of Development Alternatives with Women for a New Era (DAWN) 1984; quoted in Pietilä and Vickers 1990: 35)

Grassroots movements in the South around the impact of environmental factors on women are closely associated with a wider movement concerned with women's economic and social position within the 'development process' (Kabeer 1994). Evidence of the impact of the development process on both women and the environment emerged throughout the 1970s and 1980s. It is in the critique of development that the connection between women's experiences and the environmental crisis has been most clearly demonstrated.

The idea of 'development' was launched by US President Harry Truman in his inaugural speech in January 1949. More correctly, he launched the concept of 'underdevelopment'. The United States was seen as the apex of a 'ladder' of progress involving industrialism and the commodification of provisioning. Whole societies would move, over time, from subsistence, non-commodified rural life to increasingly urbanized, technologically sophisticated forms of production based on waged work. The road to progress led from fishing and farming to fashion and Fordism. In the 1950s the United Nations, on the initiative of the US, set up a Development Programme to fund and support this process through international structures such as the World Bank. Behind the concept of development was an assumption that the western way of life was superior to the 'backward' ways of non-western societies. The development process also spread into agriculture, where the 'green revolution' promised to end problems of hunger and poverty through biologically engineered species of staple crops developed by laboratories in the North. Western science, like the western way of life and the capitalist industrial economic system, was seen as inherently superior to indigenous farming practice and knowledge.

As Sachs has argued, following the development process has been

a disaster for most non-western countries: 'the aspiration of catching up has ended in a blunder of planetary proportions' (1993: 5). By the 1980s the GNP of two-thirds of humanity was 15 per cent of the world total, while the industrial nations, with 20 per cent of the world's population, scooped 80 per cent. This was also reflected in consumption patterns, as the industrialized nations absorbed most of the world's resources. After dramatic initial increases in crop yields, the green revolution also faltered, as high demand for pesticides, fertilizers and water brought increasing economic and environmental strains (Shiva 1989). Nations that had been encouraged to borrow huge sums of money on the promise of eventual economic returns found themselves having to turn more and more of their resources into cash to pay ever-increasing debts. According to Chee Yoke Ling, of Malaysian Friends of the Earth, by the late 1980s 40 per cent of fertile land in the South was being used to grow non-food cash crops for export (WEN 1989).

As the global market economy and the development process started to make inroads into traditional communities, women's economic position became increasingly insecure (Afshar 1985; Sen and Grown 1987; Mies 1986). Within traditional communities women's access to resources was often secured by usufruct, i.e. rights to use common or family land and resources without individual ownership. As commercial agriculture, mining and forestry began to overrun local village economies, women and the environment began to suffer (Afshar 1985; Sen and Grown 1987; Dankelman and Davidson 1988; Shiva 1989; Sontheimer, 1991). Lack of access to land, through the loss of common and family land to private ownership, led to women becoming increasingly impoverished and vulnerable. As most of them were responsible for providing a substantial part (if not the majority) of family food through subsistence farming, they found themselves working on increasingly marginal and infertile land. Where logging and damming removed nearby sources of water and wood, they found themselves, as the major collectors of fuel and water, walking longer distances each day (Dankelman and Davidson 1988). Men were increasingly being attracted, or forced by economic circumstances, to take waged work, often a good distance away, leaving the women to fend for the family in increasingly impoverished conditions. Economic necessity was also forcing women into waged work at very low rates of pay, often in dangerous conditions (Mies 1986; Mitter 1986). Given the patriarchal structure of both traditional society and the incoming development systems, they had no voice to express their concerns.

Campaigns over the impact of development on the environment and women emerged in the early 1970s. A major opportunity was created by the designation of 1975 as International Women's Year and the launch of the United Nations Decade for the Advancement of Women in Mexico. At the beginning of the decade the main focus of protest was the lack of women's involvement in development programmes. By the end of the decade the whole concept of development was being questioned. In 1975 the main criticism was that development had failed women by making totally false assumptions about their role in agricultural systems and in rural society generally. Development programmes had been based on the assumptions underlying the western industrial model of the sexual/gender division of labour – that men do the main productive work, while women stay at home. As Haleh Afshar remarked: 'male extension workers often carry an ideological image of households with male heads, the man tilling the land and the woman rocking the cradle and keeping the home fires burning' (1985: xiii). This was not the case for most women in the South or for poorer women in the North.

In 1970 Ester Boserup had published a pioneering piece of research that showed that women in sub-Saharan Africa were responsible for a vast proportion of agricultural work. She also showed how development processes not only did not aid women, but often made their lives more difficult. As men were pulled into the formal economy, women were left behind in the subsistence sector (Boserup 1970). Other examples began to emerge. National statistics for Egypt in 1970 showed women as forming only 3.6 per cent of the agricultural labour force, while interviews with women showed that 55–70 per cent of them were involved in agricultural production (Pietilä and Vickers 1990: 14). In 1972 census figures for Peru showed that women made up 2.6 per cent of the rural labour force, whereas 86 per cent of them were actually involved in agriculture (ibid.: 15). What had been revealed was the extent of women's unpaid subsistence work (Waring 1989), as well as an under-reporting of their waged work. Any development programme that did not take account of this massive amount of work was destined to fail women and the environment.

Dankelman and Davidson describe the typical day of a woman agricultural worker in India:

She rises at 4 a.m. She cleans the house, washes the clothes, prepares the meal for her husband and children and leaves for the field at 8 a.m. She works there until 6 p.m., in the meanwhile nursing the small children she took with her. On her way back she collects fuelwood, and if necessary, drinking water. She cooks the evening meal, cares for the children and

tends the animals. At 10 p.m. she goes to bed. On such a day she might earn two rupees. (1988: 3)

Failure to understand the economic position of women also led to their being seen as the perpetrators of ecological damage. As women farmers were forced on to marginal land and women generally were forced to use the dwindling resources of trees and water, it appeared that it was they, rather than logging, damming and land enclosure, who were responsible for the environmental crisis.

In 1972 voices from the South emerged on to the international stage at the United Nations conference held in Stockholm on the human environment. This was one of the conferences inspired by the work of Barbara Ward, among others. A pattern emerged that was to carry right through the United Nations initiatives on environment and development, culminating in the Rio 'Earth Summit' in June 1992. The government-led discussions in the formal debates were met by the voices of non-governmental organizations (NGOs) giving an alternative, often grassroots version, of the impact on local environments and communities of the development process (Braidotti et al. 1994). One of the groups represented in 1972 was the Chipko movement, committed to preserving the natural forests of the Himalayas. As we have seen, this movement gradually became more closely identified with women's relationship to the natural environment and has been an inspiration for many ecofeminists (Shiva 1989; Merchant 1992; Seager 1993).

The pattern of involvement of women and other groups from the South in NGO meetings – held in parallel to UN debates – continued. While the formal governmental meeting of the 1975 UN Decade for Women conference in Mexico was attended by 1,200 delegates, there were 4,000 people at the parallel NGO conference. In the mid-decade meeting in Copenhagen in 1980 there were 7,000 people, and it has been claimed that 16,000 attended the 1985 NGO forums at the end-of-decade conference in Nairobi (Ostergaard 1992: 5). Estimates for the 1995 UN Women's conference in Beijing range from 25,000 to 40,000 despite the attempts of the Chinese government to minimize NGO impact on the formal conference (*Guardian* 19 September 1995).

Alternatives to development

Environmental concerns and women's concerns were not brought together immediately. At the 1975 UN Decade for Women conference

in Mexico, and at conferences such as the International Women's Workshop held in Bangkok in 1979 or the Women and the New International Order held in The Netherlands in 1982, the main focus was on women's economic position. It was demanded that their economic needs be taken into account and that their voices be heard in the development process. This kind of campaigning has come to be known as Women in Development (WID). The basic argument of WID is that current development policies fail to recognize gender relations within households and the fundamental roles that women play in informal, rural and market economies (Harcourt 1994: 3). During the 1980s the WID arguments were taken on board by development agencies, as a result of which the WID approach has been criticized for endorsing the development process (Kabeer 1994, Harcourt 1994, Braidotti et al. 1994). In particular, the approach has been criticized for carrying the 'historical baggage' of the assumption of the superiority of the development process, and the inferiority of those who are going to be 'helped' and encouraged to participate (Apffel-Marglin and Simon 1994: 26).

By the 1980s the whole notion of development was beginning to be questioned. The 1982 conference in The Netherlands had concluded:

Now we need another development both in the North and the South. Therefore, we need to recognize the views and interests of women and to create opportunities for their full participation at all levels of the society. Then the development would not any more take place only on economic terms, but also on human terms. (Pietilä and Vickers 1990: 90)

In the same way that the work of Ester Boserup and other women was very influential in highlighting the problem of women's lack of involvement in the development process in 1975, another set of evidence was assembled for the 1985 UN Decade for Women meeting in Nairobi. A group of twenty-two activists, researchers and policy-makers from Africa, Asia and Latin America met in Bangalore, India in 1984 to prepare an independent report on the position of women in the South. The group called themselves DAWN (Development Alternatives with Women for a New Era). The report which they presented, *Development Crises and Alternative Visions*, was published two years later (Sen and Grown 1987).

DAWN's survey of women's position at the end of the UN Decade for Women, was that women's position had considerably worsened: '[W]ith few exceptions, women's relative access to economic resources, income, and employment has worsened, their burdens of work have increased, and their relative and even absolute health,

nutritional, and educational status has declined' (ibid.: 16). The crises that they saw in development were impoverishment, food insecurity and non-availability, financial and monetary 'disarray', environmental degradation and demographic pressure. The latter problem was becoming increasingly marked for women in the South. As concern about the environment had been raised in the North, the finger had been pointed at the growing population of the South. This, of course, ignored the fact that population figures in the North had only just stabilized after more than a century of rapid growth and dispersal through colonization (Hynes 1993).

In the late 1960s and early 1970s books were being written with titles such as *The Population Bomb* (Erich 1972). The United States had also tied its development programme to population control. Highly authoritarian measures were being taken to impose population control on women in the South, who were also being given forms of birth control that were banned in the North or were experimental. Birth control became one of the most important arms of the struggle by women in the South against the imposed 'solutions' from the North. By the Cairo summit on population in 1994 some progress had been made, and it was agreed that encouraging women's economic and social progress (and particularly education) was the most effective way of promoting birth control. However, this still does not address the problem of how women in patriarchal cultures are going to give effect to their empowerment. Nor does it engage with the problem of the education of men in the need to take their share of the responsibility for birth control (Sen 1994). Hynes has questioned whether the Cairo approach has not in fact hijacked the issue of women's rights and avoided a more profound questioning of power relations: '[E]n route to Cairo, a woman's rights agenda has been a rhetorical means for a populationist end – a reduction of the poorest people on Earth – without a structural change in analysis' (1993: 47). The implication that population is the crucial problem for the sustainability of human life also avoided the political problems of tackling the question of over-consumption in population-stable countries (Mellor 1992a: 101 f.).

These issues were raised in the DAWN report which concluded that women's 'bodies have become a pawn in the struggles among states, religions, male heads of households, and private corporations' (Sen and Grown 1987: 49). They called for women to have the right to control their own fertility and for recognition that the so-called population problem was largely the result of poverty and lack of resources. It was not that people had outstripped the 'carrying

capacity' of the land, as Malthusians such as Garrett Hardin had suggested (1968), it was that the land had been removed from the people.

The interaction of gender and class in the context of colonialism was a central theme of the DAWN report. All three contributed to women's experience of impoverishment, exploitation, sexual violence and political and social marginalization. Capitalism, colonialism, militarism, and fundamentalism were all male-dominated structures that oppressed women. Central to DAWN's analysis was women's role in the provision of basic needs as the basis of reproduction in human societies: 'by reproduction we mean the process by which human beings meet their basic needs and survive from one day to the next' (Sen and Grown 1987: 50). Women's social and economic marginalization, and the environmental crisis brought on by the development process, were undermining the basic means of survival for poor women.

DAWN brought environmental and economic issues together by highlighting the food-fuel-water crisis that women were facing. Commercial development had failed to take account of the interdependence of ecosystems. Loss of fertile land, damming of water courses and tree-felling all contributed to the crisis of survival. As the main providers of food, fuel and water, women were finding it harder and harder to sustain their families and themselves. They were often the last to eat, and their food intake was not necessarily enough to sustain their increasing burden of work (ibid: 58). DAWN argued that, as women were at the centre of the food-fuel-water crisis, a coherent and integrated policy to meet that crisis would need to have women, particularly those who were poor and landless, at its centre.

The importance of the DAWN approach was that it did not seek to argue for women to be included in the development process. It challenged the whole notion of development itself. Instead, a vision was presented of:

a world where inequality based on class, gender and race is absent from every country ... where basic needs become basic rights and where poverty and all forms of violence are eliminated. Each person will have the opportunity to develop her or his full potential and creativity, and women's values of nurturance and solidarity will characterize human relationships ... child care will be shared by men and women ... means of destruction will be diverted to ... relieve oppression ... technological revolution will eliminate disease and hunger ... women[s] safe control of fertility ... participatory democratic processes, where women share in determining priorities and making decisions. (ibid.: 80-1)

Although focusing on environmental issues, DAWN did not fully incorporate a 'woman and environment' perspective until 1992, when it produced a document called *Environment and Development: Grass Roots Women's Perspective* (Braidotti et al. 1994: 101) However, the DAWN analysis did link the crisis of the environment with women's needs and question the development process.

The DAWN report was debated at seminars and conferences across the world before it was presented at the 1985 Nairobi conference at a forum on 'Women and the Environmental Crisis'. In all, over two thousand women debated the report at various different meetings (ibid: 11). The 1985 conference gave a much higher profile to women and the environment than the 1975 Mexico conference had done, with other well-known activists such as Vandana Shiva and Wangari Maathai playing a major role. Ecofeminism as a perspective had become increasingly important in the groundswell of activity around women and the environment. Campaigns and conferences linking women, the environment and development increasingly brought together grassroots activists from North and South, as well as researchers, academics, radical development and environment campaigners and political activists. Following a conference in Managua, Nicaragua in June 1989, a 'women's declaration' was issued:

Women from around the world, meeting in the IV Biennial Congress on the 'Fate and Hope of the Earth' recognise that the global crisis of misused 'models of development' has brought us to the brink of disaster. This is seen in the abominable social, economic, political and cultural conditions which are particularly prevalent in the Third World. Women suffer most from these conditions.

An international seminar on 'Women, Environment and Development' was also called by WEN in London in March 1989. The keynote speaker, Vandana Shiva, argued that women were not marginalized in the development process by accident. They were, in fact, bearing the cost of development, as was the environment:

The hidden costs related to the loss of visibility, the loss of the perception that women as producers sustain society throughout the world. The costs also of being robbed of the material base that makes production of sustenance possible; the forest, the soil, the genetic resources. (WEN 1989: 5)

The seminar also challenged the idea that growth could bring equality. This was not ecologically sustainable. Chee Yoke Ling of Malaysia called for the women's liberation movement to recognize the

dilemma of the destructive force of technology and embrace 'minimalism'.

Workshops presented evidence from around the world on the relationship between women, the environment, development and grassroots responses. These ranged from village organizations in India, Zimbabwe, Sudan and Ghana, to campaigns about pesticides in Nicaragua and Malaysia, and women's involvement in radical political movements in Brazil (WEN 1989). The seminar called for a reconceptualization and redefinition of development to mean 'a process of change which safeguards the natural environment, enables women's self-empowerment, and balances social and economic needs' (ibid.: 4). Evidence of the environmental problems women were facing and the grassroots solutions they were finding were also collected and published by Dankelman and Davidson (1988) and Sontheimer (1991). Dankelman and Davidson claimed that there were six thousand women's groups in Africa alone that were involved in various 'conserving' activities (1988: 177). Sontheimer also argued in her introduction that:

[T]he predominant theme that emerges from a reading of the literature is not of women as victims of ecological crises, but rather the extraordinary ability of women to organize themselves to fight ecological destruction and carry out actions that both improve their lives and make a significant contribution to local community development. (1991: prelims)

Zed Press and Earthscan Publications in London have provided a particularly important channel for voices from the South, even if they have been filtered through concerned activists. As Dankelman and Davidson point out in the preface to their book published by Earthscan:

It has not been possible, in this book, to convey adequately the drudgery and the suffering so many Third World women must face in their daily struggle to survive and care for their families. Nor have we done justice to the extraordinary resilience and energy these women display in impoverished and sometimes dangerous environments. Northern women, writing about life in the South, can do little more than try to give some voice to the voiceless. (1988: prelims)

There was not, however, a universal shift within feminist thinking about development. A study on gender and development, prepared for the European Union and published in 1992, makes no mention of environmental issues whatsoever, and advocates that all bilateral and multilateral development aid should incorporate a WID perspec-

tive (Ostergaard 1992). However, in 1993 the WID forum, part of the Society for International Development (one of the oldest NGOs formed in the early 1960s), called a round-table conference in The Hague to discuss 'Women, Environment and Alternatives to Development'. It was proposed that WID should become WED - Women, Environment and Development - and the main papers from the conference were published in a book *Perspectives on Sustainable Development* (Harcourt 1994). The conference concluded that 'development theory and practice founded on Western biases and assumptions, excludes both women and nature from its understanding of development and, in so doing, has contributed to the current economic and ecological crisis' (ibid.: 3).

While the WED approach has challenged the idea of women as 'victims' and pointed instead to their strengths and resilience at the grass roots, some concerns have been expressed. Braidotti et al. (1994) have noted a tendency to treat all women in the South as having the same experience and potential, as well as to romanticize their situation, which diverts attention from the power structures that surround and construct the situations in which many women find themselves. Having ceased to be seen as victims, women are coming to be seen as the solution: 'The prevailing image of women as agents fighting the effects of the global ecological crisis casts them as *the* answer to the crisis: women as privileged knowers of natural processes, resourceful and "naturally" suited to provide the "alternative"' (Häusler 1994: 149; italics in the original). Braidotti et al. (1994) express similar reservations. From a postmodern perspective they argue that a new totalizing image of the valiant 'Third World Woman' is being presented that deflects attention from divisions between women. Such an image may also obscure the gap between the WED movement, largely made up of activists, academics and researchers, and the grassroots base. Braidotti et al. even question how extensive the grassroots base actually is. From a structuralist perspective Bina Agarwal calls for a transformative struggle around the woman-nature relationship rather than a celebration of it (1992).

Despite these criticisms, the WED process brought together important issues that directly challenged the international programme of development sponsored by the industrialized nations and the United Nations. The UN, like most development organizations, did not welcome the very critical turn that the women and environment campaigns were taking, but was persuaded rather belatedly to recognize this growing movement - in 1991 it called for a specific women's

input to the 1992 Rio 'Earth Summit'. Two conferences were hurriedly called in Miami in 1991. The first, the 'Global Assembly of Women for a Healthy Planet', brought more than 200 women from all over the world, who presented their experiences of managing and protecting the environment to 500 invited delegates from development organizations. The second conference called 1,500 women together from eighty-three countries to prepare a Women's Action Agenda for the 'Earth Summit'. Braidotti et al. argue that the Miami conferences represent a 'major breakthrough' because 'for the first time ever women across political/geographical, class, race, professional and institutional divides came up with a critique of development and a collective position on the environmental crisis, arrived at in a participatory and democratic process' (1994: 103). In parallel to the Summit itself, in June 1992, the Brazilian Women's Coalition organized a women's conference, Planeta Femea, at the NGO forum in Rio de Janeiro. The result of these meetings was an input to Agenda 21 of the Earth Summit resolutions, in which the position of women was addressed, specifically in Chapter 24, where the need for the active involvement of women in economic and political decision-making was acknowledged. The relative lack of importance of women, however, can be shown by the fact that a calculation of the costs of implementing Agenda 21 was \$600 billion for the whole programme, but only \$40 million for programmes relating to women.

Sabine Häusler has described the outcome of the Rio Summit as 'a failure of global proportions' (1994: 146) and it has been generally categorized by green activists as an expensive failure (Sachs 1993). Even the process of bringing NGOs together in a semi-formal way was problematic. It meant that Amazonian indigenous peoples were rubbing shoulders with representatives of multinationals. Even so, any publicity given to the NGO forum presented it as made up of 'hopeless idealists, exotic Indians and groups of emotional women' (Häusler 1994: 148). Even the Planeta Femea group was not without its problems. The remarkable unity among all the delegates concerning women and the environment had led to a lack of sensitivity to divisions and inequalities between women. The problem of racism and lack of representation was raised by Brazilian women of colour (ibid: 150).

Häusler argues that the unity of the NGO delegates also enabled them to be co-opted by the UNCED process. Some notional acknowledgement of women in UN texts has meant that a policy that is effectively 'business as usual' has been made more acceptable (ibid: 151). Finger has made a similar point about the involvement of NGOs

generally, whereby they are seen as giving tacit approval to what eventually become very watered-down policies (1993: 36). He particularly sees this process at work in the preparation of the 1987 World Commission on Environment and Development Report, *Our Common Future*, better known as the Brundtland Report. This Report envisaged the possibility of 'sustainable development', defined as 'development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs' (1987: 43-4). The Brundtland Report did not specifically focus on the relationship between women and the environment and did not challenge the overall aim of 'development'. It did acknowledge the role of women in farming in a section on 'neglect of the small producer' (ibid: 124-5). Sustainable development has become a mainstream concept that tends to mean 'business as usual' or, according to the World Bank in 1992: 'sustainable development is development that lasts' (quoted in Sachs 1993: 10).

Women's voices are still not being heard even in pressure groups around the UN. A document issued in 1991 by the United Nations Environment Programme, together with the World Wide Fund for Nature and the World Conservation Union, entitled *Caring for the Earth: A Strategy for Sustainable Living*, makes no reference to women whatsoever. It calls for support from 'non-governmental organizations and professional groups; religious leaders and educators; business people, farmers and fisherfolk' (IUCN/UNEP/WWF 1991: 19). Even discussion of 'green belt' tree-planting only refers to 'volunteers, especially children' (ibid: 12). Häusler argues that women are now likely to become the targets for further policies of sustainable development and population programmes, and concludes: 'The past experience of such development projects has shown that they put more strain on already overworked rural women without necessarily leading to much-needed wider legal and political changes' (1994: 151). However, despite these criticisms, the Earth Summit and the Planeta Femea did provide the basis for the creation of a global network of campaigners and activists.

In the 1990s campaigns concerning women and the environment have continued to focus on the development process, in particular the growth of bio-technology (Abramovitz 1994). DAWN has recently called for a platform based on women and the environment, alternative economic systems and campaigns against reproductive engineering. Concerns about the latter have been raised by organizations such as FINRRAGE (Feminist International Network of Resistance to Reproductive and Genetic Engineering), launched in 1985 in Vellinge,

Sweden. In India the specific problem of using reproductive technology for sex determination has led to the formation of a Forum Against Sex Determination and Sex Preselection Group (1994). The Asian and Pacific Women's Resource Centre has also researched and reported on women's health and environmental issues more generally (1989, 1992).

These issues are of central concern to Mies and Shiva, whose challenge to western economic and technological 'maldevelopment' has led them to advocate a 'subsistence perspective' (1993: 297). By this they mean a needs-based economy which starts from the unpaid subsistence work of women and peasant peoples that attempts wherever possible to avoid the commodified market economy. They also condemn the new technologies of reproductive and genetic engineering outright: 'We can no longer argue about whether reproductive or genetic technology as such is good or bad; the very basic principles of this technology have to be criticized no less than its methods' (ibid.: 175). Mies condemns the new technologies as racist, sexist and ultimately fascist (ibid.: 176) and Shiva has long been concerned about the threat to biodiversity of the new technologies: 'Biotechnology . . . makes it possible to colonise and control that which is autonomous free and self-regenerative . . . the seed, women's bodies as sites of regenerative power are, in the eyes of capitalist patriarchy, among the last colonies' (Shiva 1994: 129).

Abramovitz defines biodiversity as 'the sum of genes, species and ecosystems co-existing on Earth at any point in time (1994: 198). She draws together chilling evidence of the loss of species even in 'man-made' forms. For example, 96 per cent of vegetable varieties listed by the US Department of Agriculture in 1903 are now extinct. In Indonesia 1,500 local rice varieties have become extinct in the last fifteen years (ibid.: 199-200). Even where there is genetic diversity, commercial firms are increasingly wanting to 'colonize' and patent them in the 'Biodiversity-Biotechnology-Biobusiness link' (Weizsacker 1993: 121). Shiva argues that biodiversity and cultural diversity go hand in hand: 'Diversity is the characteristic of nature and the basis of ecological stability. Diverse ecosystems give rise to diverse life forms and to diverse cultures. The co-evolution of cultures, life forms and habitats has conserved the biological diversity on this planet' (1993: 65). Central to Shiva's critique is the role of women in maintaining diversity, particularly of knowledge (1989). Abramovitz has also argued for recognition of 'the vital role women play in understanding and managing the living diversity of their surroundings, and the importance of that diversity to sustaining women and the families

they support' (1994: 198). There is, however, quite a leap between identifying women's central role as agents of environmental sustainability and the creation of a movement that embraces those ideas.

The emergence of ecofeminism

Women's involvement in grassroots struggles and global campaigns to do with the environment cannot be automatically claimed as evidence of the existence of an ecofeminist movement. As I have pointed out, claims for the size and importance of the movement depend upon whether the narrower notion of those who identify themselves as ecofeminists is taken, or a wider inclusive view that embraces all women involved in grassroots environmental movements even if they do not explicitly embrace a feminist or ecofeminist perspective (Lahar 1991). As Joni Seager has noted:

-Women who take the lead in community organizing are not necessarily feminists, nor are they necessarily aware of, or interested in, feminist analyses of power, culture, sexuality, structure. In fact, many women who are in the midst of a struggle against a daily-life threat express the view that feminist questioning is diversionary. (1993: 237)

Grassroots activists, as we have seen, were often people who had not previously been politically involved or committed, although the experience of campaigning was usually a deeply politicizing one. The women who did create ecofeminism as a movement on the other hand, often had a long history of activism in other feminist, peace or political movements. Many were also from academia, which opens the movement to accusations of being the preserve of middle-class white academics. This is the dilemma for many radical movements in an unequal society. Without inequality there would not be radical movements, but those with the most cultural capital to support the movements are often relatively privileged themselves.

Ecofeminism as a movement and as a perspective seemed to emerge spontaneously in several parts of the world in the mid 1970s - in France, Germany, the United States, Sicily, Japan, Venezuela, Australia and Finland (Kuletz 1992; Salleh et al. 1991). In the United States the new grassroots organizations and the early proponents of ecofeminism were brought together at 'Women and Life on Earth: A Conference on Ecofeminism in the Eighties', called in response to the nuclear crisis at Three Mile Island in 1979. One of the speakers was

Lois Gibbs, who pointed to the importance of women's politicization in grassroots action: 'The women of Love Canal are no longer at home tending their homes and gardens . . . women who at one time looked down at people picketing, being arrested and acting somewhat radical are now doing those very things' (quoted in Merchant 1992: 193). The conference, held in March 1980 in Amherst, Massachusetts, was organized by the writer Grace Paley and a leading ecofeminist Ynestra King, among others, both of whom had a long history of activism (Spretnak 1990).

Ynestra King, an academic, feminist and peace activist, saw the aim of the conference as being the exploration of the connections between militarism, feminism, healing and ecology (1983a: 9). The six hundred women who attended were united by both hope and fear, 'a fear for life and the awesome powers of destruction arrayed against it and out of hope – a hope for women's power to resist and create' (ibid.: 9). The resistance was against violence 'the violence against women in all its forms – rape, battering, economic exploitation and intimidation . . . the racist violence against indigenous peoples . . . the violence against the earth' (ibid: 11). Opening the proceedings, King put the relationship between ecology and feminism firmly on the agenda:

We're here to say the word ECOLOGY and announce that for us as feminists it's a political word – that it stands against the economics of the destroyers and the pathology of racist hatred. It's a way of being, which understands that there are connections between all living things and that indeed we women are the fact and flesh of connectedness. (quoted in Caldecott and Leland 1983: 6)

The Amherst conference laid the foundation for the Women's Pentagon Actions in November 1980 and 1981 when women surrounded the Pentagon peacefully for two days on each occasion. A 'Statement of Unity' adopted by the organizers of the action sets out clearly the connections that were being made: 'We are gathering at the Pentagon on November 16th because we fear for our lives. We fear for the life of this planet, our Earth, and the life of the children who are our human future' (Leland and Caldecott 1983: 15). The Pentagon action was in response to the decision to escalate the Cold War by the deployment of cruise missiles at sites throughout Europe. In Britain peace and anti-nuclear activists in Carmarthen, Wales followed the example of Scandinavian peace women who had walked from Copenhagen to Paris in protest. Demonstrators (including some men) from Cardiff marched to the cruise missile site at Greenham Common under the banner 'Women for Life on Earth Peace March 1981'. This

led to the establishment of the (eventually) women-only peace camp at Greenham Common (Roseneil 1995). From the evidence, it might appear that the march was the spontaneous decision of a group of women and men in Wales, if not of one woman, Ann Pettit, who first suggested the idea. However, as Jill Liddington has pointed out, it grew out of a long history of peace and anti-nuclear campaigning that meant that there was 'a long road to Greenham' both for the marchers and for the women's peace movement as a whole (1989).

Although the primary motivation for the Greenham protest was anti-nuclear and anti-militarism, the experience of living on the very striking Common and quite literally close to the earth encouraged the growth of ecofeminist ideas, as Roseneil has pointed out. This was reinforced by visits from women from the United States who had been involved in the Women's Pentagon Actions and the works of Mary Daly and Susan Griffin which circulated widely in the camp (Roseneil 1995: 67). Like the American actions, the imagery of spinsters and web-weaving were central to many of the Greenham protests, and a countrywide web-like organization was developed that was very effective. As a very temporary resident I can vouch for the visual impact of the Common, which moved me strongly in the direction of ecofeminism. I also saw evidence of the influence of spiritual feminism in a 'Goddess' statue surrounded by offerings. Greenham did, however, share with other feminist, ecofeminist and peace movements an over-representation of white, middle-class activists and an under-representation of Black and working-class adherents (Brown 1984).

One of the most concrete and seemingly successful examples of the link between feminist and green thinking was in Germany, where *die Grünen*, the West German Green Party, sought explicitly to adopt a feminist perspective. Women who had been involved in grassroots action through the Citizens Initiatives, the women's movement and the peace movement were key founding members of the party. The late Petra Kelly is perhaps the best known. When the Green Movement gained significant political representation by taking twenty-eight seats in the German Federal Parliament in 1983, it looked as if feminism was at the heart of green politics in Germany. *Die Grünen* had made a commitment to feminism and the role of women. A central feature of its political programme was the aim of having 50 per cent representation for women throughout the party. Reflecting the origin of many of its members in the women's movement, *die Grünen* called for a society 'built on complete equality of the sexes in the context of an overall ecological policy', thus ending the 'oppression,

exploitation, injustice and discrimination that women have suffered for many thousands of years' (Programme of the German Green Party 1983: 40).

In 1984 the national parliamentary group of *die Grünen* was headed by a 'Feminat' of six women. In 1987 women headed all but one of the electoral lists for the *Bundestag*, and twenty-five women and nineteen men were elected. However, in practice this policy was not ultimately successful. Faced with the expectations of politics as defined by men, women – particularly those with domestic responsibilities – found it difficult to take part on equal terms. As early as 1985 Charlene Spretnak and Fritjof Capra reported that the pro-woman policy was not substantiated by any real understanding on the part of the men in the movement of the difficulties women found in taking office (1985: 47). By 1986 Petra Kelly was reporting on the detrimental effect on her health of a high public profile (*Green Line*, no. 48 1986–7). A 1989 profile of the German Greens describes women as a 'special interest group' rather than a core element in the party's membership and programme (Parkin 1989). The experience of the German Greens is unfortunately reflected in many other green parties and in the green movement generally (Mellor 1992c; Seager 1993). Feminism cannot be assumed to be at the centre of green politics; if anything, the German Greens were an exception in this regard. Nor, of course, can the presence of women in a green movement imply that it will adopt an ecofeminist perspective. The relationship between ecofeminism and the green movement will be discussed more fully in Chapter 6.

Despite the involvement of women in grassroots environmental struggles in various parts of the world, including several high-profile conferences and the formation of various networks, there is no formal ecofeminist movement. To the extent that even an informal movement exists, it is represented mainly in a rapidly growing range of publications (Caldecott and Leland 1983; Shiva 1989; Plant 1989; Diamond and Orenstein 1990; Mellor 1992a; Plumwood 1993; Mies and Shiva 1993; Warren 1994). It is a movement of ideas, theories and practices, which builds upon women's actual struggles. While these writings can be criticized for being over-representative of white, middle class women from the North, in mitigation it can be argued that the body of ecofeminist literature forms a critical and radical alternative to traditional, malestream perspectives. As Peggy Antrobus, another of the DAWN founding members, argued at the first Miami meeting in 1991:

The primary task for us as women is to formulate analyses which will help us identify the root causes of our environmental problems. We must clarify the links between environmental degradation and the structures of social, economic and political power. (quoted in Seager 1993: 280–1)

This is what the body of literature that identifies itself as ecofeminist sets out to do.