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Sustainable Work – and Women?

Pleading for gender-sensitive socio-ecological research

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Abstract

This article deals with the emerging discourse on sustainable work, which has been triggered by the ecologically initiated discussions on sustainable development. It gives a critical overview of the most important approaches to this subject from a feminist perspective. From a feminist point of view many of the current concepts of ‘sustainable society’ and ‘sustainable work’ have several deficiencies. The main point of criticism is that these approaches do not consider gender differences appropriately, especially with regard to the gendered division of work. Feminist approaches to the sustainable redefinition of work, on the other hand, tend to be essentialist and therefore have to be looked upon critically, too. Trying to escape both of these pitfalls, the author suggests a gender-sensitive socio-ecological approach to the complex field of sustainable work. This approach views socio-ecological problems as gendered problems and appreciates a transdisciplinary access to questions of sustainable development.

1. Introduction

The discourse on sustainable work is rather new and received its inputs from neighbouring discourses, such as the mainly ecologically oriented discussions on sustainable development, the discourse on the multiple crisis of Fordist work societies, and finally the discussions on work and employment. Key elements of these partly independent discussions are:

- The relation between environmental policy and employment,
- The connections between environmental policy and informal work
- Conceptual considerations about the linkages between work and the environment, and
- The role of work in the context of sustainable development.

From a feminist point of view these discussions have several deficiencies. These shortcomings extend from gender blindness, e.g. in ‘sustainable society’ models and discussions about the effects of employment upon the environmental segment of the labour market to the predominant use of a patriarchal definition of work, which limits work to paid employment.¹ The feminist approaches to work and environment

¹ There is no valid national or international agreement on the meaning of the term “environmental segment of the labour market” (Hildebrandt/Oates 1997; Ritt 1998). Its meaning ranges from those industries and services which primarily aim at environmental goals to a broader definition of the term including all commercial activities which have a positive effect on environmental conservation. Using

consists of critical comments on various concepts, and also includes – to a lesser extent – feminist models of sustainable work, as for example the approach of ‘provident economics’ (*vorsorgendes Wirtschaften*). This paper will give a critical overview of these approaches, which are currently discussed under the general topic of sustainable work.

In this paper I will first present and analyse from a feminist perspective the most recent approaches to sustainable work. Then I will then present and discuss feminist contributions to the re-definition of the relationship between work and the environment. Finally I will suggest a gender-sensitive socio-ecological approach to analyse the relationships between work and environment. This approach tries to avoid both, the gender blindness of ecologically driven approaches as well as the seemingly essentialism of feminist approaches.

2. Sustainable Work – An Emerging Discourse

The discussion about the significance of work in a sustainable society has only just begun, and the effects of the postulate of sustainability upon the organisation of work are everything but clear (cf. the contributions in *Politische Ökologie* 1998 as well as Bierter and v. Winterfeld 1998; Hildebrandt 1999; HBS 2000)². The debate raises complex questions about the requirements and non-sustainable effects of employment-based labour and lifestyles in modern industrial societies and the interplay between labour and environment in production and reproduction. Current discussions are further complicated by the fact that the definition of work and its associations are not clear. What is the connection between work and ‘life’, or between work and nature?

Conceptual considerations about the connection between environment and society describe work as mediating category in the metabolism between the social and the natural system (Fischer-Kowalski 1997). According to these metabolic views, natural environment/nature and society are connected by material flows. However, often these concepts conceptualise only the relationship between people and nature. Nevertheless, sometimes they also try to quantify material and energy flows between a social system and its environment. The concept of ‘societal metabolism’ and the ‘colonisation of natural systems’, developed by the inter-disciplinary Vienna Team of Social Ecology, goes beyond the mere metabolic approach (Fischer-Kowalski et al. 1997; Fischer-Kowalski 1997; Fischer-Kowalski and Weisz 1998, 1999; Fischer-Kowalski and Haberl 1993, 1998). The goal of this ambitious approach is to understand to conceptualise the connections between symbolic and material systems. Additional to this it wants to enable empirical analysis of these relations without being subject to reductionism of either the social or the natural sciences (Fischer-Kowalski and Weisz 1998). Following Hans-Peter Sieferle (1997), the ‘societal metabolism’ concept understands nature as a ‘material system’, and society as a ‘symbolic system’ of cultural practices. These two systems are linked by a population, in the sense of a certain number of people who are connected in a specific way. These

this broader notion in 1994 the number of jobs in the Austrian green labour segment totaled 44.000, i.e. 1% of total employment (Ritt 1998: 8).

² Already in the 1970es another discussion termed ‘environment and employment’ started, which mainly focused on the negative and positive effects of environmental policy/protection on the number of available jobs (Sprenger 1997). Only recently this debate came to include questions of job quality in the environmental segment of the labour market (Ritt 1998), while gender aspects have been mostly omitted completely (Littig 2001: 65 pp).

populations are linked to the material and the cultural system. On the one hand, the cultural system provides them with the culturally produced codes and thus also determines the symbolic representation of the material world. On the other hand, by means of labour and the experiences that result from it they are also linked to the material system. Labour in this context, means the ‘physical expenditure of energy in an intentionally designed fashion’ (Fischer-Kowalski 1997: 130).³ The metabolism of a social system thus includes *‘those materials and energetic flows that sustain the material compartment of the system. ... material compartments of a social system are those physical entities that are continually reproduced by the labour expended in this system.’* (Fischer-Kowalski 1997: 131; italic in the original)

The metabolic approach traces back to Marxist ideas of work and nature, which have been ignored by most sociologists so far (Schmidt 1971, Dunlap 1997, Fischer-Kowalski 1997, Foster 1999). Marx and Engels assume that work is an existential human process to take charge of nature (Marx and Engels 1867/1961: 183 f). At the same time, labour or work relations in particular, structure the social relations within a society (e.g. Clausen 1988). But contrary to Marx and Engels today labour is no longer perceived as a productive exchange process with nature but as productive and destructive at the same time – at least in contemporary industrial society (Clausen 1988: 55 pp). This ambiguity becomes apparent in different models portraying the human exchange process with nature – i.e. labour – as a circle of material resources (e.g. Hildebrandt 1999). All types of work, be it paid employment, subsistence work, domestic labour, individual labour, or community work, need natural resources for the production of goods and services. The working person earns an income (money or proceeds). The expended working capacity is reproduced in various types of consumption (material, non-material, commercial, non commercial etc.). The products or services that are used in this process also produce waste or environmental hazards during production and consumption. Some of the waste created may be collected and returned to this cycle. The rest pollutes the natural environment and decreases the quantity or lowers the quality of the available resources that can be introduced into the material cycle (cf. Hildebrandt 1999: 20).

You may see the schematic representation of this cycle in the following figure 1:

(insert fig. 1)

This model of the material cycle has the advantage that it does not artificially separate the areas of production and reproduction/consumption (as opposed to most mainstream economic models e.g. Varian 1993, see also Ferber and Nelson 1993; Hofmeister 1999). On the contrary, the model connects energy and material streams that flow through these areas and by the work that is done in that context. This view makes it possible to comprehend the extent of the hazardous effects on the environment resulting from the different types of lifestyle and economy in modern industrial society (Fischer-Kowalski et al 1997; Fischer-Kowalski 1998; Weller 1993,

³ This definition of labour is problematic because of its width. Such a definition would also encompass many other human activities such as sports, sexual intercourse, several hobbies. The Hawrylyshyn’s “third party” rule (1977) is surely a necessary additional criterion, i.e. that if the rewards or product of the activity are diminished by hiring someone else to do it then it is not simply labour – see Downes et al.(1996) or Pahl (1984) for further discussions on this issue.

1994b).⁴ Consequently the complex interrelationships of the modern way of living have become the central focus of the discourse on sustainable development in the modern industrialised countries. The main arguments of this discourse shall be outlined in the following section.

3. Concepts of Sustainable Development and Work

The current concepts of sustainable development have a history of more than fifteen years. Sustainable development as a term has been known since 1987, when the World Commission for Environment and Development published the so-called Brundtland report 'Our common future' (WCED 1987). This report describes sustainable development as a process of constant change with the objective to harmonise current and future needs with the exploitation of resources, the stream of investments, the direction of technological development and institutional changes. Ever since the 1992 conference on Environment and Development (UNCED) in Rio de Janeiro, global sustainability has become the guiding principle for political discussions of environment and development (United Nations 1992; Sachs 1997; Charkiewicz 1998).

While the Brundtland report still assumed the necessity of an exponential growth of 5-6% in developing and 3-4% in industrialised countries, it has become evident in the meantime that nature may not be able to sustain such a growth (see Meadows et al. 1992). Critics of the Brundtland forecast pointed out an overestimation of preserving effects of environmental technologies (Kopfmüller 1993: 6). In their perspective innovative and ecological technologies are simply not enough to preserve resources and disburden the environment. Moreover, the critics demand to supplement the technical potentials for conservation and reduction of material with the substitution of technical products, with adequate economic conditions and with social innovations.⁵

The criticism of the Brundtland-Report drew the attention away from environmental damages in developing countries caused by poverty to damages by 'over consumption' in industrialised nations. It became apparent, that the prevalent ideas of wealth, life style and personal development as well as economic prosperity are based on the excessive use of non-renewable energy and natural resources. Therefore they can impossibly be globally applied (Giddens 1992; United Nations 1992).

A by now famous operationalisation of sustainability in the sense of greater distributive justice is the concept of 'environmental space', which was elaborated by the Institute of Climate, Environment and Energy in Wuppertal (BUND/Misereor 1996). The concept of environmental space is a quantitative measure for the use of environment and natural resources per capita. The transgression of a certain limit puts sustainable development at risk. Based on modes of life and production in industrialized countries, the concept identifies central starting points for sustainable

⁴ In this way, paid employment and reproductive labor, which is predominantly carried out by women, may also be seen as two connected parts of the economic process (Pahl 1984; Abbott and Wallace 1997).

⁵ P. Tijmes and R. Luijf substantially criticised the Brundtland report's ideas regarding economic and developmental policies. They pointed out that the report applies without reflection the theoretical economic assumption of scarcity to ecological economics and as a consequence only demands improvements of the economic management of poverty. Traditional socio-cultural differences in the ways of how to deal with shortages are not considered at all. The modernisation of traditional societies according to the Western example are recommended without further scrutiny (see Tijmes/Luijf 1995; see also Shiva 1989; Muttagi 1998).

development, in particular technical and organizational optimisation as well as changes of values, consumption patterns and lifestyles.

The concept promotes both a 'revolution of efficiency' and a 'revolution of sufficiency'. While the 'revolution of efficiency' includes technical and organisational optimisation, the 'revolution of sufficiency' propagates changes of values, consumption and lifestyles. Both 'revolutions' strive for increases in productivity of resources and energy (Schmidt-Bleek 1993, Hinterberger et al 1994, Schmidt-Bleek/Tischner 1995; Weizäcker et al. 1997).⁶

The 'revolution of efficiency' aims primarily at technical and organizational efficiency on a microeconomic level. The organisational component of the concept is concerned with the idea of selling services instead of products and, beyond that, with optimising logistics, distribution, and utility. The technical component of the concept tries to optimise products, processes and infrastructures. It focuses on product innovations, which are based on ecological design, diminished use of resources, energy conservation, avoidance of dangerous raw materials and of toxic emissions in production processes and consumption, long-life, repairable and recyclable products etc. According to preventive or integrative ideas of environmental protection, process innovations should minimize energy and water use as well as the output of pollutants. With regard to sufficiency, there is more at stake than claiming new 'dematerialised' qualities of use by the slogan 'using instead of owning' (Schmidt-Bleek 1993; Hinterberger et al 1994). Even more importantly, the quantitative level of utilization needs to be kept as low as possible. That means, ways to base consumption on a collective use of goods in form of sharing need to be found. Examples for this are community washing machines, cooperative car sharing, commercial lending or leasing of sewing machines as well as home and garden tools. New models of prosperity are aiming at our lifestyles, consumption patterns and habits of recreation. Examples for such ideas include the preference of vacationing at home instead of trips to faraway places, the reduction in consumption of meat, the preference for organically grown food, extensive reduction of the car driving in favour of walking, cycling and public transport. Overall, these models describe a new way of living and dealing with time, space, and speed. In this context, these concepts consider a new 'prosperity of time', which could be created by a decrease of total working hours and the establishment of a lifelong work-time, which includes reproductive private work and work for hire. All of that can be accomplished by job sharing and similar efforts (see BUND/Misereor 1996: 221)⁷. The authors of the mentioned study regard the implementation of a social and ecological tax reform, which makes energy more expensive and labour cheaper as the most urgent need. This reform should slow down energy intensive mechanization. Further taxes should reduce use of raw materials and

⁶ Other scientists propose a third 'revolution of consistency' for a sustainable development. This means fitting anthropogenic material streams undisturbed in the natural material cycles (see Huber 1995).

⁷ There are several country studies following the Wuppertal concept of sustainable development (among others, one for Germany (BUND/Misereor 1996), the Netherlands (Milieu Defensie 1992) and Austria (Kosz 1998) besides the one titled 'Towards Sustainable Europe' (Friends of the Earth 1995). But from a Social Sciences point of view, it is not unproblematic to operationalise sustainability as proposed by the Institute in Wuppertal – Demanded socio political change (i.e. change of lifestyles and values, a new definition of labour, etc.) is cast in normative ideas of how it should be. Possible social implications or consequences are sometimes phrased very vague. Overall, the proposed changes lack consideration of detailed sociological findings and of the analysis of society (see articles in Brand 1997).

ease the change to a more labour-intensive 'repair society' (see also Blau/Wehnisch/Weiß 1997). A socio-ecological tax reform should lead to ecological structural changes within economy and society, which may reduce the use of non-renewable energy and resources and – at least on a medium-term basis - create new jobs.

The Wuppertal study is a good example for a concept of sustainable social development. It demonstrates that the concept of sustainable work cannot be limited to the 'greening' of working processes. The principles of sustainable development call for a rearrangement of the entire structure of modern Fordist work societies with their close connection between economic growth, prosperity, social security, quality of life, and psycho-social well-being to paid employment and income (Lipietz 1991, Senghaas-Knobloch 1998; HBS 2000).

The Wuppertal study can serve as a starting point to define five important thematic areas within the current sustainability debate (cf. Hildebrandt 1999: 16):

1. Job creation by environmental protection,
2. Flexibility of and reduction in working hours in combination with a re-organised social security system (e.g. providing general income, which is independent from 'employment status),
3. Extension of informal individual and subsistence labour for developing an extended definition of work, the reduction of paid employment as central source of income, the development and propagation of a new qualitative understanding of prosperity which is less tied to material consumption,
4. Re-organisation of cost relations between different production factors by a socio-ecological tax reform and by taking into account the real costs of environmental protection and distribution in product prices.
5. Qualification measures in environmental protection and increased participation of workers and employees to make environmental measures more effective.

A feminist point of view raises several questions about sustainable work: Do the concepts treat gender relations at all, and if so in which way? To what extent do these concepts address the different living and working conditions of men and women? What kinds of solutions do they provide for a just division of labour between the sexes? These questions have to be addressed, if only for the one reason that Agenda 21, Chapter 24 – one of the key documents of the sustainability discourse - explicitly demand to accord the equal social, political, economical, and legal status to both genders (United Nations 1992; Littig 1998; Moghadam 2000).

According to feminist critics the above-mentioned study 'Sustainable Germany' (*Zukunftsfähiges Deutschland*), which can serve as a typical example for a 'sustainable' social model has a number of shortcomings. Feminist critique concentrates on the fact that the study treats gender-related questions only unsystematically, especially in view of the gendered division of labour (summarised in Littig 1998; Schultz 1999; Bernhard 1999). Moreover, as Irmgard Schultz points out, the authors of the study show a rather uncritical attitude towards the role of science in sustainable processes. Additional to that she criticises the apparent lack of democratic participation in the preparation and implementation of sustainable goals and strategies (Schultz 1999). In contrast, Agenda 21 perceives women as important group of actors in sustainable processes and their participation as central (Littig 2001). Claudia Bernhard's (1999) criticism of the study 'Sustainable Germany' is even more serious. She reproaches the authors of the study with the fact that – under

the ‘cloak’ of socio-ecological re-organisation – they instrumentalise women for the benefit of capitalist/patriarchal interests.

Feminists demand four basic revisions of the current discourse on sustainability and work:

1. A critical reflection of underlying definitions of work and the development of a concept of work, which also includes domestic, family and subsistence work,
2. The consideration of the actual working and living conditions of women whenever sustainable types of work and living arrangements are set up,
3. A critical view on possible ‘mock’ solutions of environmental measures, which includes a look at the consequences for all affected people,
4. The revision of the leading non-sustainable economic principles in favour of utility value-oriented and co-operative economic principles.

From a feminist perspective, these demands should also apply to the new models and discussions about sustainable labour, economy, and lifestyles (e.g. BUND/Misereor 1996; Bierter and von Winterfeld 1998; Hildebrandt 1999; HBS 2000). Actually, however, gender issues are debated in the sustainable development discourse in such a way, which is hardly in keeping with the complexity of current problems. Nor is it in any way natural for the mainstream proponents to include a gender perspective into the debate (Braidotti et al 1994; Harcourt 1994; Häusler 1994; Littig 2001). This deficiency in the debate contrasts with a number of official documents on sustainable development, that aim to accord equal status to both genders, and target women explicitly as important actors.⁸

Another critical comment of E. Hildebrandt deserves to be mentioned. He criticises that the concept of sustainable labour and living fails to pay adequate attention to the actual changes of paid employment and its structural requirements. This concerns the disintegration of the so-called regular employment contract, the regulation of working conditions and vocationalism, the feminisation of labour, global competition, etc. (Hildebrandt 1999: 14 pp; see also Matthes 1983; Sauer 1999; Littig 2001). Instead of reorganising existing types of paid employment and its institutions in a more ecological way the Wuppertal study advocates another type of full employment. The proposed new ‘sustainable work society’ encompasses informal activities, such as do-it-yourself and self-help economic activities and combines them with part-time employment (Hildebrandt 1999: 14 pp). Prerequisites for this re-organisation of working life are shorter working hours and flexibilisation. The study, however, pays no attention to problems associated with flexible working hours. In fact, as has been shown in the case of VW in Wolfsburg, Germany, the consequent varying working hours can increase the difficulties to organise one’s social and family life (Hildebrandt 1997; Hielscher and Hildebrandt 1999).⁹

4. Feminist Contributions to the Concept of Sustainable Work

⁸ The idea of gender mainstreaming – i.e. generally spoken, the integration of a gender perspective into all policy processes – already manifests itself in Chapter 24 of the Agenda 21 titled “Global action for women towards sustainable and equitable development” (UN 1992). Most items of Chapter 24 were confirmed in 1995 by the participants of the 4th World Conference in Beijing. At that time gender mainstreaming became an official political keyword (Littig 2001).

⁹ Other work models such as regular, part-time hours particular parts of the day or week can offer flexibility to both employer and employee, without the disruptive impact of variable (or unpredictable) hours on the work-life balance of the worker.

The advocates of the 'provident economics' approach (*vorsorgendes Wirtschaften*), a concept which they call 'work in progress', also criticises the sustainability discourse. The name 'provident economics' was coined as an antithesis to the prevailing concept of economics by a group of German-speaking feminist economists. Like other feminist critics (e.g. Ferber and Nelson 1993) 'provident economics' accuses economics of excluding private reproductive from total economy (Jochimsen et al. 1994; Inhetveen 1994, 1999; Biesecker 1997; Diskussionskreis 'Frau und Wissenschaft' (Discussion Circle 'Woman and Science') 1997; Jochimsen and Knobloch 1997; Hofmeister 1999, Biesecker et al 2000). They criticise the following tendencies: Economic analysis focuses on money based market economy and thus do not cover the entire economy (Hofmeister 1999: 85). Moreover, economy is presented as autonomous from its natural surroundings and the social life (Biesecker 1997). In accordance with the currently prevailing economic rationality, market economy only aims at abstract values, and not at the satisfaction of needs. The aim of 'provident economics' is to reverse this. Provident economics strives for the realisation of utility values and natural values (ibid). Monetary exchange processes should be a means to implement the purposes of life and not abstract values (ibid.). In addition to following the predominant money economy, 'provident economics' is governed by other principles (Jochimsen and Knobloch 1997; Hofmeister 1999), namely:

- Co-operation (instead of competition)
- Fore-sight (instead of after-care)
- Looking at really existing needs (instead of abstract monetary values).

The advocates of 'provident economics' do not think that the realisation of these principles is utopian. On the contrary, they presume that these principles have already been realised in many areas of employment, especially in the reproductive area of the domestic and subsistence oriented 'gardening economy' (Inhetveen 1994, 1999; Hofmeister 1999, Biesecker et al 2000).

The leading principles of 'provident economics' are important prerequisites for the conception and realisation of sustainable development (Hofmeister 1999; Biesecker 1997). An extended sustainable definition of labour which is based on co-operation, fore-sight (provision), and a focus on essential needs can only be realised by taking into account the 'unity of the economy'. This idea embodies an extended understanding of economics and embeds economic behaviour in people's natural surroundings and social lives (Hofmeister 1999; Biesecker 1997). Thus the principles of 'provident economics' also serve as a reference point for 'ecologising' the existing main types of employment.

While the approach of 'provident economics' is more interested in the solution of ecological problems, the so-called 'subsistence perspective' is decidedly feminist, critical of development, and globally organised (Mies et al. 1988; Mies and Shiva 1993; Bennholdt-Thomsen and Mies 1997). Since the 1970s, a number of social scientists, including developmental sociologists at the University of Bielefeld in Germany published many studies on subsistence (Hasenjürgen 1993: 12 pp). Several empirical studies in different so-called Third World countries revealed that the utility value-oriented production of meeting individual needs, or subsistence economy, is the most important element of reproduction for large numbers of people living there. These findings contradict the capitalist development model, which assumes that the adaptation of so-called developing countries to the technological and social levels of Western industrial societies would be the key for development (Wehling 1992;

Braidotti et al 1994). This model favours “developmental policies” to abolish subsistence forms of labour, because it alleges that all ‘non-capitalist’ living and working conditions are either under-developed, traditional, or backward. In contrast, the so-called ‘subsistence perspective’ points out that capitalist development does not entirely replace the subsistence economy by salaried work. Non-capitalist subsistence labour, which is based on individual needs is an essential part of capitalist development, because it contributes to the reproduction of labour (Hasenjürgen 1993). The subsistence approach also links social division of labour and gender relations by pointing out that the predominantly female subsistence work is part of the basic structure of capitalist societies.

Within the feminist subsistence debate, this so-called ‘subsistence perspective’ became much more through making the connection subsistence with patriarchal power structures and the capitalist production of goods. The advocates of the feminist co-called Bielefeld approach – Maria Mies, Veronika Bennholdt-Thomsen and Claudia von Werlhof – conducted several studies about female working and living conditions in particular in different so-called Third World countries (Mies 1986; Mies et al. 1988). The authors proceed from the assumption that the global exploitation associated with capitalist economy determines all the local, regional, national aspects of production and of society, including poverty and so-called under-development. The capitalist exploitation logic includes not only salaried work but as an essential part of the capitalist system also unpaid reproductive labour usually done by women. This holds not only true for the so-called First World but also for the subsistent production in marginal population groups in the so-called Third World. This unpaid reproductive and subsistence work ensures the reproduction of labour power and is thus incorporated into the profits of capital. As functional part it is ultimately included in the utilisation process and contributes to the accumulation of capital. The Bielefeld group calls the capitalist appropriation of unpaid (female) labour ‘robbery’ and perceives it as the second strategy to accumulate capital as supplementary to the exploitation of salaried work. In their view, the fact that female reproductive and subsistence labour is unpaid structurally devaluates female subsistence work. Since subsistence work practically takes place outside the area of social production, unpaid labour– according to a dualist society-nature concept – is quasi degraded to ‘natural productivity’ and thus is an exploitable ‘natural resource’. This naturalisation of female informal productivity can be perceived as an exploitative capitalist relationship with nature, which in capitalist utilisation logic ultimately provides free resources. In this analogy between the ‘sphere of nature’ and the ‘natural productivity’ of female and subsistent labour in so-called Third World countries ‘women are the last colony’ of capital – as in the title of a famous book by these authors (Mies et al. 1988. Consequently, in this perspective the decrease of material consumption to encourage autonomous subsistence production is the only opportunity for a feminist liberation struggle and for the re-organisation of society’s relationship with nature (Mies and Shiva 1993; Bennholdt-Thomsen and Mies 1997).

This perspective frequently gave rise to serious debates, especially within the feminist movement and research in West Germany (Wichterich 1992; Braidotti et al. 1994; Bennholdt-Thomsen and Mies 1997). Many critics doubt the success of propagating the renunciation of the comforts of consumption along with the (re-)establishment of subsistence-oriented lifestyles, at least not under the conditions of contemporary industrial societies. Moreover, the portrayal of traditional farming life, especially in

view of women's social status, is criticized as idealised and stereotypical (Hasenjürgen 1993). The Bielefeld approach neither differentiates between women from different social situations and backgrounds nor does it discuss the cultural conditionality of female role stereotype. Furthermore, there are fundamental doubts concerning women's alleged and positively rated 'closeness to nature' which most eco-feminist approaches have in common (Braidotti et al. 1994, Mellor 1997). From a constructivist point of view the basic objection against this approach is directed at the idea of a natural bipolarity of gender. This easily accepts without questioning and merely reproduces the every-day differentiation of men and women without questioning its preconditions (Gildemeister and Wetterer 1992; West and Zimmerman 1996). The fact that this perspective universalises and essentialises gender differences and that it assumes a gendered division of labour instead of identifying it as a social construction is problematic (Lorber and Farrell 1991; Knapp 1998; Scott 1998; Gehmacher and Singer 1999; Gildemeister 2000).

Some of the above criticism is also aimed at the 'provident economics' approach (Knapp 1997), which ascribes this closeness to subsistence behaviour and knowledge to women in a similar way. The main moral principle of 'provident economics', which is fore-sight (provision) and which ought to renew the existing economy, is derived from the assumed female abilities to provide and care (Biesecker 1997; Jochimsen and Knobloch 1997; Hofmeister 1999). Hofmeister, when faced with this critique, responded by pointing out that provident economics would by no means be connected with essentialist ideas of a caring female (1999: 91). However, the learning and practicing of behaviour and skills of provident economics are taking place in the reproductive sector, which is in the primary responsibility of women. This does not mean that caring as such is 'female' (Hofmeister 1999: 91). On the contrary, both genders should have equal access to formal economic and reproductive activities. Ultimately, these two separate economies, each of them with its particular principles of action, ought to be combined along the lines of a sustainable economy (Biesecker 1997; Hofmeister 1999). The provident economics approach is also often blamed for being unrealistic because it presumes that two economies can co-exist harmoniously instead of seeing them as structurally dependent and asymmetrical (Knapp 1997). This very basic line of critique calls into question the efficacy of moral demands that the existing economy and the exploitation of nature and women be changed. Hofmeister addresses this critique by stating, that the 'provident economics' concept is deliberately committed and normative, and that it mainly tries to point out the great significance of ethics and morals in economics, or at least in a sustainable economy (Hofmeister 1999: 91).

5. Résumé and outlook: Sustainable work from the perspective of gender-sensitive socio-ecological research

Considering the shortcomings of the prominent Wuppertal study and of feminist contributions to sustainable work, the following remarks about the discussion of sustainable work can be made. The concept of sustainable work cannot shut itself off from reflections upon existing capitalist power constellations, the actual development of paid employment, the structural separation of productive and reproductive labour, and the global as well as the gender-differentiating division of labour. In order to reach beyond well-intended but mostly ineffectual moral claims, it will be necessary to introduce and analyse concrete margins and limits for the realisation of socio-

ecological labour for women and men. Sustainable social development will depend to a large extent on ecologising the existing employment patterns and structures, as well as our entire way of life.

As described above, environmental problems result from the currently predominant destructive relationships between nature and society whose extensive utilisation of nature by material exchange processes can be described and measured. Men and women are in a different way involved in these exchange processes and differently affected by any problematic consequences thereof due to gender-specific role attributions, positions, and functions. Thus the gender-relationships, which are based on the predominant dual construction of gender and usually lead to male privileges, have become gradually the object of analysis. Society's hierarchical gender organisation is expressed by several facts: the social division of labour, the free disposition of power and resources, and the opportunities to assess certain social functions, positions, and roles. At the same time gender is a universal category, which applies to all known forms of society regardless of cultural and historical variations (Klinger 1999: 109 pp).¹⁰ It is both important, to recognise any concrete forms of expression and social contexts common to men and women, and to focus on differences within genders. The reason for this are overlaps between gender categories and other characteristics. The general homogenisation and comparison of women and men leads to wrong assumptions and results. It also raises unrealisable political expectations (e.g. women's global solidarity).¹¹ These statements are in line with the conceptual framework of 'gender mainstreaming' which in September 1995 effectively entered the international public policy at the UN Fourth World Conference on Women in Beijing. Gender mainstreaming features prominently in the so-called Action Platform and commits the institutions of the UN system to systematically incorporate gender perspectives into all policy processes (Moghadam 2000).¹² By the end of the 90ies the European Commission and Parliament also incorporated the idea of 'gender mainstreaming', which has been especially adopted in European employment policies (Pollack and Hafner-Burton 2000; Behning and Pascual 2001). In socio-scientific environmental research the results and considerations of gender research imply that gender as a social/structural category plays an essential part in the definition and solution of problems (Schultz 1994, 1998; Schultz and Weller 1995;

¹⁰ The question whether the homogenisation of women as a feminist political strategy may also be justified by the fact that gender is a universal criterion of social structuring gave rise to some heated discussions within feminist circles. It was mainly ecofeminists who criticized the fact that post-modern and post-structural feminists called attention to the differences between women and questioned identity politics. (e.g. Salleh 1997, Mellor 1997).

¹¹ In view of current globalisation processes it seems not very promising to impute a homogeneous interest (in the environment) to women of different social class, ethnic background, and age and to proceed from gender-stereotypical attributions of interests and coalitions and mobilisation potentials (Sassen 1998, Wichterich 1995). At least academic gender studies and partly policy debates (e.g. on gender mainstreaming, Pollack and Hafner-Borton 2000; Moghadam 2000) slowly acknowledge this heterogeneity – which Black Feminists recognized since the 1970es.(e.g. Lorde 1984; see also Klinger 1999; Gildemeister 2000).

¹² The history of the concept of gender mainstreaming traces back at least to the Third World Conference on Women in Nairobi in 1985, Kenya, where feminists criticised mainstream capitalist development policies for their gender blindness and developed the first principle elements of gender impact analysis (Braidotti et al 1994; Moghadam 2000). Meanwhile gender impact assessment has become an elaborated instrument "designed to analyse potential effects of new government policies on the gender relations" (Verloo and Roggeband 1996: 3)

Littig 2001). In order to be gender-sensitive, environmental research needs to consider the socio-structural consequences of gender with regard to the free disposition of resources, limited possibilities for action. This is for example due to social role stereotypes, the participation in decision-making and power, the opportunities to shape one's personal life, etc. This does not just apply to basic research (e.g. conceptions of the relationship between people and nature or the definition of categories), but also to the empirical collection and evaluation of data (e.g. operationalisation of variables and interpretation of results), and to the accompanying empirical research (e.g. differentiation of expectations, opportunities, and possibilities for action). This kind of research aims at both, the gender-sensitive analysis of the existing socio-economic crisis and the search for gender-sensible solutions. I would suggest calling such a socio-scientific research approach 'gender-sensitive socio-ecological research'. Knowledge production for socio-ecological problems, which is gender-sensitive will quite naturally integrate gender issues into environmental research instead of moving them to a special, often marginalized area (such as 'Women and Environment'). This applies to the discussion of future forms of (sustainable) work as well as to the topic of sustainable consumption, the change of environmentally destructive behaviour, and political mobilisation or institutionalisation.

It has been repeatedly pointed out that the ecological crisis can only be solved by combining the change of individual lifestyles and behaviour with the change of the existing environmentally destructive modes of production and consumption. This perspective challenges the basic social principles of contemporary societal organisation, especially Fordist (paid) labour societies, which are based on mass production and consumption. However, the Fordist labour model is not only problematic from an ecological perspective; in times of global economy its (social) national limitations also pose a problem. From a feminist point of view the employment-based Fordist social model has also been extensively criticised – for one because it ignores the necessary requirements (females reproductive labour), and secondly because it disadvantages employed women (unfair salaries, lack of access, etc.) (Abbott and Wallace 1997; Sauer 1999). These points of criticism call for a new extended social understanding of labour, which – to sum up – should be ecologically and socially compatible and should also acknowledge gender variations. Such extended problem perception needs transdisciplinary co-operation and knowledge production, which is oriented towards the solution of social problems (Gibbons et al. 1994; Gehmacher and Singer 1999). The recurrent strident demands for gender equality and social justice show, that existing research in this context is inadequate and incomplete. With regard to ecological systems this is expressed by sympathy with nature and present and future generations. Such problem orientation would blur the boundaries between basic and applied research and call for co-operation of science and practice. In this way, the production of knowledge would no longer be limited to small scientific circles and academic institution. Instead it would require new networks and new forms of institutionalisation.

Gender-sensitive socio-ecological research does not prefer special techniques of empirical research. A pluralistic tool-set of, both quantitative and qualitative methods, can be applied: If representative information is needed to get an overall view of a special issue instruments of quantitative, statistical research such as opinion polls, representative surveys, secondary analysis of official statistical data etc. will be

adequate. Qualitative techniques such as interviews, group discussions, participant observation, and case studies should be used to explore living situations and their cognitive representation in detail. For evaluation projects on special programmes or measures a combination of qualitative and quantitative methods (triangulation) might be useful.

Summing up, the main characteristics of gender-sensitive socio-ecological research are:

- An emphasis on socio-ecological problems and their gender-specific conditions and consequences,
- A determination to eliminate gender disadvantages,
- A need for transdisciplinarity to define and solve problems effectively.

Gender-sensitive socio-ecological research has the advantage that it combines the findings of women's and gender research with environmental studies. However, there have hardly been any attempts to implement such a perspective; on the contrary: both approaches seem to ignore each other. Nevertheless, future research will show whether this combination will be successful in practice.

References

- Abbott, Pamela and Wallace, Claire (1997) *'An Introduction to Sociology. Feminist Perspectives'*, London and New York: Routledge.
- Behning, Ute and Pascual, Amparo, S. (eds) (2001) *Gender Mainstreaming in the European Employment Strategy*, Brussels: ETUI (European Trade Union Institute)
- Bennholdt-Thomsen, Veronika and Mies, Maria (1997) *„Eine Kuh für Hillary. Die Subsistenzperspektive“*, München: Frauenoffensive.
- Bernhard, Claudia (1999) *„Die neue Bescheidenheit – Wie antifeministisch ist die Nachhaltigkeit?“* in Weller, Ines et al, 111-120.
- Bierter, Willy and Winterfeld, Uta v. (1998) *„Zukunft der Arbeit - welcher Arbeit?“*, Berlin/Basel/Boston: Birkhäuser.
- Biesecker, Adelheid (1997) *„Für eine vorsorgende Wirtschaftsweise notwendige (neue?) Institutionen“* in Diskussionskreis *„Frau und Wissenschaft“* (ed), 53-77.
- Biesecker, Adelheid and Mathes, Maite and Schön Susanne and Scurell, Babette (eds)(2000) *Vorsorgendes Wirtschaften – Auf dem Weg zu einer Ökonomie des guten Lebens*, Bielefeld: Kleine.
- Blau, Evelyn, Weiß, Norbert and Wenisch, Antonia (1997) *„Die Reparaturgesellschaft. Das Ende der Wegwerfkultur“*, Wien: ÖGB-Verlag
- Braidotti, R./ Charkiewicz, E./ Häusler, S./ Wieringa, S. (1994) *„Women, the Environment and Sustainable Development. Towards a Theoretical Synthesis“*, London and New Jersey: Zed Books.
- Brand, Karl-Werner (ed) (1997) *„Nachhaltige Entwicklung. Eine Herausforderung an die Soziologie“*, Opladen: Leske and Budrich.
- Buchen, Judith, Karin Buchholz, Esther Hoffmann, Sabine Hofmeister, Ralf Kutzner, Rüdiger Olbrich and Petra van Rühl (eds) (1994) *„Das Umweltproblem ist nicht geschlechtsneutral: feministische Perspektiven“*, Bielefeld: Kleine
- BUND/Misereor (ed) (1996) *„Zukunftsfähiges Deutschland. Ein Beitrag zu einer global nachhaltigen Entwicklung“*, Studie des Wuppertal-Instituts für Klima, Umwelt, Energie, Basel/Boston/Berlin: Birkhäuser
- Busch-Lüty, Christine, Jochimsen, Maren, Knobloch, Ulrike and Seidl, Irmi (eds) (1994) *„Vorsorgendes Wirtschaften. Frauen auf dem Weg zu einer Ökonomie der Nachhaltigkeit“*, in *Politische Ökologie*, Sonderheft 6. München
- Charkiewicz, Eva (1998) *„Sustainable Consumption: New Approaches are Needed“* in Federal Ministry of Environment, Youth and Family Affairs of Austria (ed), Vienna, 78-90
- Clausen, Lars (1988) *„Produktive Arbeit - destruktive Arbeit“* Berlin and New York: de Gruyter
- Diskussionskreis *„Frau und Wissenschaft“* (eds) 1997: *„Ökonomie weiterdenken! Beiträge von Frauen zu einer Erweiterung von Gegenstand und Methode“*, Frankfurt am Main/New York: Campus
- Dones, David and Rock, Paul, E. and Hakim, Catherine 1996: *Key Issues in Women's Work, Female Heterogeneity and the Polarism of Women's Employment*, New York: Athlone Press
- Dunlap, Riley E. (1997) *„The evolution of environmental sociology: a brief history and assessment of the American experience“* in Redclift, Michael and Woodgate, Graham (eds) *„The International Handbook of Environmental Sociology“*, Cheltenham: Edward Elgar, 21-39
- Ferber Marianne, A. and Nelson, Julie A. (1993) (eds) *„Beyond Economic Man“*, Chicago: University of Chicago Press
- Fischer-Kowalski, Marina (1997) *„Society's metabolism: on the childhood and adolescence of a rising conceptual star“* in Redclift, Michael and Woodgate, Graham (eds), 119-137.

- Fischer-Kowalski, Marina (1998) ‚Zum magischen Dreieck von Lebensqualität, Wohlstand und gesellschaftlichem Stoffwechsel‘ in Littig, Beate (ed), 17-44.
- Fischer-Kowalski, Marina and Haberl, Helmut (1993) ‚Metabolism and Colonisation: Modes of Production and the Physical Exchange between Societies and Nature‘ in *Innovation in Social Science Research*, 6, 415-42.
- Fischer-Kowalski, Marina and Haberl, Helmut (1998), Sustainability Problems and Historical Transitions – A Description in Terms of Changes in Metabolism and Colonization Strategies‘ in Hamm, Peter and Muttagi, Pandurang K. (eds), 57-76.
- Fischer-Kowalski, Marina and Weisz, Helga (1998) ‚Gesellschaft als Verzahnung materieller und symbolischer Welten‘ in Brand, Karl-Werner (ed): *Soziologie und Natur. Theoretische Perspektiven*, Leske and Budrich, Opladen, 145-175.
- Fischer-Kowalski, Marina and Weisz, Helga (1999) ‚Society as a Hybrid between Material and Symbolic Realms. Toward a Theoretical Framework of Society-Nature Interaction‘ in *Advances in Human Ecology*, 8, 215-251.
- Fischer-Kowalski, Marina, Haberl, Helmut, Hüttler, Walter, Payer, Harald, Schandl, Heinz, Winiwarter, Verena and Zangerl-Weisz, Helga (1997) (eds) ‚*Gesellschaftlicher Stoffwechsel und Kolonisierung von Natur*‘, Amsterdam: Fakultas
- Foster, John B. (1999) ‚Marx’s Theory of Metabolic Rift: Classical Foundations for Environmental Sociology‘ in *American Journal of Sociology*, 105 (2), 366-405.
- Friends of the Earth (FOE) (eds) (1995) ‚*Towards Sustainable Europe. The Study*‘, Nottingham: Russell Press
- Gehmacher, Johanna and Singer, Mona (1999) ‚Feministische Forschung in Österreich. Eine Geschichte zur Fortsetzung‘ in Lutter, Christina and Menasse-Wiesbauer, Elisabeth (eds) ‚*Frauenforschung, feministische Forschung, Gender Studies: Entwicklungen und Perspektiven*‘ (Materialien zur Förderung von Frauen in der Wissenschaft Band 8), Wien, Bundesministerium für Wissenschaft und Verkehr (ed), 19-40
- Gibbons, Michael and Camille Limoges and Helga Nowotny and Simon Schwartzman and Peter Scott and Martin Trow (1994) *The new production of knowledge. The dynamics of science and research in contemporary societies*, London et al.: Sage
- Giddens, Anthony (1992) ‚Modernity and Self-Identity. Self and Society in the Late Modern Age‘, Cambridge: Polity Press
- Gildemeister, Regine 2000 ‚Geschlechterforschung (Gender Studies)‘, in Flick, Uwe, V. Kardorff, Ernst and Steinke Ines (eds) *Handbuch der qualitativen Sozialforschung*, Reinbek bei Hamburg: Rowolth, 213-223
- Gildemeister, Regine and Wetterer, Angelika (1992) ‚Wie Geschlechter gemacht werden‘ in Knapp, Gudrun-Axeli and Wetterer, Angelika (eds.) *Traditionen. Brüche*, Freiburg: Kore, 201-254
- Harcourt, Wendy (ed) (1994) ‚*Feminist Perspectives on Sustainable Development*‘, London and New Jersey: Zed Books
- Hasenjürgen, Brigitte (1993) ‚Von der ‚Subsistenzdebatte‘ zur Geschlechterforschung – Frauen und Arbeit im Diskurs der westdeutschen Frauenforschung‘ in Hasenjürgen, Brigitte and Sabine Preuß (eds) *Frauenarbeit Frauenpolitik in Afrika, Asien, Lateinamerika, Osteuropa*. Internationale Diskussionen, Münster: Westfälisches Dampfboot, 11-32
- Häusler, Sabine (1994) ‚Women and the Politics of Sustainable Development‘ in Harcourt, Wendy (ed) *Feminist Perspectives on Sustainable development*, London and New Jersey: Zed Books, 145-155
- Hawrylyshyn, O. (1977) *Towards a Definition of Non-Market Activities*. In: *The Review of In and Wealth*, 77/1, 79-96
- HBS (Hans Böckler Stiftung) (ed) (2000) *Wege in eine nachhaltige Zukunft. Ergebnisse aus dem Verbundprojekt Arbeit und Ökologie* Düsseldorf: Eigenverlag

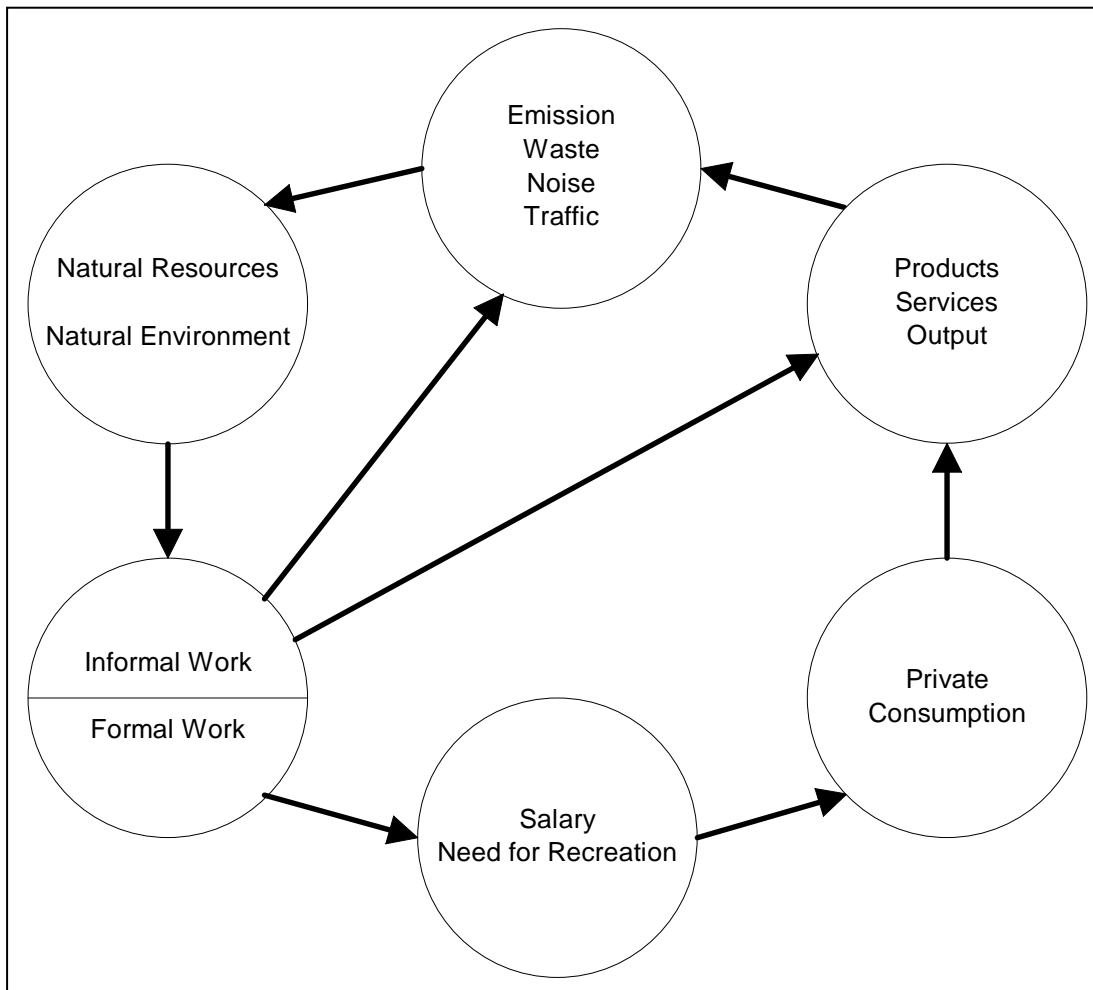
- Hielscher, Volker and Hildebrandt, Eckart (1999) ‚Zeit für Lebensqualität. Auswirkungen verkürzter und flexibilisierter Arbeitszeiten auf die Lebensführung‘, Berlin: Edition Sigma
- Hildebrandt, Eckart (1999) ‚Arbeit und Nachhaltigkeit‘, Wissenschaftszentrum Berlin (Science Center Berlin) (ed), discussion paper No P99-502, Berlin
- Hildebrandt, Eckart and Oates, Andrea (ed)(1997) *Work, Employment and Environment, Quality and Quantity of Work in the Environmental Labour Market and Its Regulation*, Discussion Paper ed. by the Science Center Berlin, No FS II 97-208, Berlin
- Hinterberger, Friedrich et al. (1994) ‚Increasing resource-productivity through eco-efficient services‘, Wuppertal papers No 13, Wuppertal Institut für Klima, Umwelt, Energie (ed) (address: Döppersberg 19, D-42103 Wuppertal)
- Hofmeister, Sabine (1999) ‚Über die Produktivität des Reproduktiven. Der Beitrag des Konzepts ‚Vorsorgendes Wirtschaften‘ zum Nachhaltigkeitsdiskurs‘ in Weller, Ines et al, 73-98
- Huber, Josef (1995) ‚Nachhaltige Entwicklung durch Suffizienz, Effizienz und Konsistenz‘, in Fritz, Peter, Josef Huber and Levi, Hans-Wolfgang (eds) *Nachhaltigkeit in naturwissenschaftlicher und sozialwissenschaftlicher Perspektive*, Stuttgart: S. Hirzel - wissenschaftliche Verlagsgesellschaft, 31-46.
- Inhetveen, Heide (1994) ‚Hortikultur als Vorbild‘ in Busch-Lüthy et al. (eds), 22-27.
- Inhetveen, Heide (1999) ‚Die Lehre des Komposts‘ in *Politische Ökologie* 17(62), 51-57
- Jochimsen, Maren and Knobloch, Ulrike (1997) ‚Making the hidden visible. The importance of caring activities and their principles for any ecology‘, in *Women, Ecology and Economics* 1997 (10), special issue, 107-112.
- Jochimsen, Maren, Knobloch, Ulrike and Irmi Seidl (1994) ‚Vorsorgendes Wirtschaften. Konturenkizze zu Inhalt und Methode einer ökologischen und sozialverträglichen Ökonomie‘, in Busch-Lüthy, Christine et al. (eds), 6-11
- Klinger, Cornelia (1999) ‚Essentialismus, Universalismus und feministische Politik‘ in Lutter, Christina and Menasse-Wiesbauer, Elisabeth (eds) *Frauenforschung, feministische Forschung, Gender Studies: Entwicklungen und Perspektiven* (Materialien zur Förderung von Frauen in der Wissenschaft Band 8), Wien: Österreichische Staatsdruckerei, 95-115
- Knapp, Gudrun-Axeli (1998) ‚Differenz ohne Differenzierung? Anmerkungen zur Debatte um ‚weibliche Moral‘ ‘ in Horster, Detlev (ed) *Weibliche Moral - ein Mythos?* Frankfurt am Main: Suhrkamp, 162-188
- Knapp, Ulla (1997) ‚Ökofeministisch Wirtschaften? Eine Polemik gegen den Haushalt als Ausgangspunkt allgemeiner Richtlinien‘ in *Ökologisch Wirtschaften*, 3-4/1997, Special Nachhaltiges Wirtschaften – eine feministische Perspektive, 9-12
- Kopfmüller, Jürgen (1993) ‚Die Idee einer zukunftsfähigen Entwicklung‘, in *Wechselwirkung*, 1993 (61), 4-14
- Kosz, Michael (1998) ‚Auf dem Weg zu einer nachhaltigen Entwicklung in Österreich‘ in Littig, Beate (ed) *Ökologie und soziale Krise oder: Wie zukunftsfähig ist die Nachhaltigkeit?* Wien: Edition VHS, 173-198
- Lipietz, Andre (1991) ‚Demokratie und Fordismus‘, in *Das Argument*, 33, 677-694.
- Littig, Beate (1998) ‚Nachhaltige Entwicklung für Frauen, gegen Frauen, von Frauen? Konzepte nachhaltiger Entwicklung aus frauenpolitischer Sicht‘, in Littig, Beate (ed) *Ökologie und soziale Krise oder: Wie zukunftsfähig ist die Nachhaltigkeit?* Wien: Edition VHS, 140-159
- Littig, Beate (2001) *Feminist Perspectives on Environment and Society*, Harlow: Pearson Education

- Lorber, Judith and Farelle, Susan A. (1991) (eds) *'The Social Construction of Gender'*, Newbury Park/London/New Dehli: Sage
- Lorde, Audre (1984) *Sister Outsider*, Trumansburg and New York
- Lutter, Christina and Menasse-Wiesbauer, Elisabeth (eds) (1999) *Frauenforschung, feministische Forschung, Gender Studies: Entwicklungen und Perspektiven* (Materialien zur Förderung von Frauen in der Wissenschaft Band 8), Wien: Österreichische Staatsdruckerei
- Marx, Karl and Engels, Friedrich (1867) *'Capital'*, Vol. I, reprinted 1961, London: Laurance and Wishart.
- Matthes, Joachim (1983) ‚Krise der Arbeitsgesellschaft?‘ Verhandlungen des 21. Deutschen Soziologentages in Bamberg 1982, Frankfurt and New York: Campus
- Meadows, Donella H., Denis L. Meadows and Jörgen Randers (1992) *Beyond the limits. Confronting global collaps, envisioning a sustainable future*, Chelsea: Green Publishing
- Mellor, Mary (1997) *'Feminism and Ecology'*, New York: New York University Press
- Mies, Maria (1986) *'Patriarchy and Accumulation on a World Scale. Women in the International Division of Labour'*, London Zed Press.
- Mies, Maria and Shiva, Vandana (1993) *'Ecofeminism'*, London: Zed Press.
- Mies, Maria, Bennholdt-Thomsen, Veronika and Werlhof, Claudia von (1988) *'Women: the Last Colony'*, London: Zed Press.
- Milieu Defensie (ed) (1992) *'Action Plan Sustainable Netherlands'*. Milieudefensie Friends of the Earth Netherlands, Amsterdam
- Moghadam, Valentine M. (2000) *'Transnational Feminist Networks. Collective Action in an Era of Globalization'* in *International Sociology*, Vol 15 (1), 57-85
- Muttagi, Pandurang K. (1998) *'Sustainable Development – A Third World Perspective'* in Hamm, Peter and Muttagi, Pandurang K. (eds) *Sustainable Development and the Future of Cities*, New Dehli/Calcutta: Oxford&IBH Publishing, 43-56
- Pahl, Ray E., (1984) *'Divisions of Labour'*, Oxford: Basil Blackwell
- Politische Ökologie (1998) Special Issue: ‚Nachhaltiges Arbeiten. Perspektiven einer zukunftsfähigen Wirtschafts- und Lebensweise‘, *Politische Ökologie* 16 (54), München
- Pollak, Mark, A. and Hafner-Burton, Emilie (2000) ‚Mainstreaming Gender in the European Union‘ In: *Journal of European Public Policy*, Vol 7/1,
- Redclift, Michael and Woodgate, Graham (1997) (eds) *'The International Handbook of Environmental Sociology'*, Cheltenham: Edward Elgar
- Ritt, Thomas (ed) (1998) ‚Umwelt und Arbeit‘. In: ‚Umwelt und Arbeit - Bestandsaufnahmen und Perspektiven‘, in *Informationen zur Umweltpolitik* No. 124 (1998), Arbeiterkammer Wien (ed), Wien, 5-32
- Sachs, Wolfgang (1997) *'Sustainable Development'* in Redclift, Michael and Woodgate, Graham (eds), 71-82
- Salleh, Ariel (1997) *'Ecofeminism as Politics: Nature, Marx and the Postmodern'*, London: Zed Books
- Sassen, Saskia (1998) ‚Überlegungen zu einer feministischen Analyse der globalen Wirtschaft‘, in *Prokla*, (28) 111, 199-216 (longer English Version: Sassen, Saskia 1996 in *Indiana Journal of Global Legal Studies*, vol 4, no 1 Fall 1996)
- Sauer, Birgit (1999) ‚Es rettet und (k)ein höh'eres Wesen ...‘. Neoliberale Geschlechterkonstrukte in der Ära der Globalisierung‘, in Stolz-Willig, Brigitte and Veil, Mechthild (eds), 215-239
- Schmidt, Alfred (1971) *'The Concept of Nature in Marx'*, London: New Left Books
- Schmidt-Bleek, Friedrich (1993) *'MIPS - a universal measure'*, in *Fresenius Environmental Bulletin*, 2, 306-311.

- Schmidt-Bleek, Friedrich and Tischner, Ulrike (1995) ‚Nutzen gestalten, Natur schonen‘, Schriftenreihe des Wirtschaftsförderungsinstituts der Wirtschaftskammer Österreich (ed), No 270, Wien
- Schultz, Irmgard (ed) (1993) *GlobalHaushalt. Globalisierung von Stoffströmen – Feminisierung von Verantwortung*, Frankfurt am Main: IKO-Verlag,
- Schultz, Irmgard (1994) ‚Das Frauen & Müll-Syndrom. Überlegungen in Richtung einer feministischen Umweltforschung‘ in Buchen Judith et al (eds), 152-167
- Schultz, Irmgard (1998) ‚*Umwelt- und Geschlechterforschung - eine notwendige Allianz*‘, ISOE DiskussionsPapiere 2, (Aug. 98), Institut für sozial-ökologische Forschung (ed), Frankfurt am Main
- Schultz, Irmgard (1999) ‚Eine feministische Kritik an der Studie Zukunftsfähiges Deutschland‘ in Weller. Ines et al. (eds), 35-72
- Schultz, Irmgard and Weller, Ines (eds) (1995) ‚*Gender and Environment: Ökologie und Gestaltungsmacht der Frauen*‘, Forschungstexte des Instituts für sozial-ökologische Forschung, Frankfurt am Main: IKO-Verlag,
- Scott, Joan (1988) ‚Gender: A Useful Category of Historical Analysis‘ in Scott, Joan *Gender and the Politics of History*, New York, 28-50
- Senghaas-Knobloch, Eva, (1998) ‚Von der Arbeits- zur Tätigkeitsgesellschaft? Politikoptionen und Kriterien zur ihrer Abschätzung‘, in *Feministische Studien*, 16 (2), 9-30
- Shiva, Vandana (1989) ‚*Staying Alive*‘, London: Zed Press
- Siefert, Rolf Peter (1997) ‚Kulturelle Evolution des Gesellschaft-Natur-Verhältnisses‘ in Fischer-Kowalski et al. (eds), 37-56
- Sprenger, Rolf-Ulrich (1997) ‚*Environmental Policies and Employment*‘, OECD, Paris
- Stolz-Willig, Brigitte and Veil, Mechthild (eds) (1999) ‚Es rettet uns kein höh’res Wesen. Feministische Perspektiven der Arbeitsgesellschaft‘, Hamburg: VSA-Verlag
- Tjimes, Pieter and Luijf, Reginald (1995) ‚The Sustainability of our Common Future: An Inquiry into the Foundations of an Ideology‘, in *Technology in Society*, 17 (33), 327-336
- United Nations (1992) *Agenda 21*, New York
- Varian, Hal R. 1993 (4th ed.) *Intermediate Microeconomics. A Modern Approach*, New York: Norton W.W.&Comp.Inc.
- Verloo, Mieke and Roggeband, Connie (1996) ‚Gender Impact Assessment: The Development of a New Instrument in the Netherlands‘ in *Impact Assessment*, (14)1, 3-21
- WCED (World Commission on Environment and Development) (1987) ‚*Our Common Future*‘, Oxford: Oxford University Press
- Wehling, Peter (1992) *Die Moderne als Sozialmythos*, Frankfurt am Main und New York: Campus
- Weizäcker, Ernst Ulrich von, Lovins, Amory, B. and Lovins, Hunter, L. (1997) ‚*Factor Four - living twice as well on half as much*‘, London: Earthscan
- Weller, Ines (1993) ‚Textile Stoffströme: Globalisierung und Chemisierung am Beispiel von Baumwolle und Gore-Tex‘ in Schultz, Irmgard (ed), 37-59.
- Weller, Ines (1994)a ‚Forschungs- und Diskussionstand zu ‚Gender&Environment‘ , in Schultz, Irmgard and Weller, Ines (eds), 20-40
- Weller, Ines (1994)b ‚Zur Diskussion der Stoffe und Stoffströme in der Chemie(politik)‘ in Schultz, Irmgard and Weller, Ines (eds), 207-218
- Weller, Ines (1995) ‚Forschungs- und Diskussionstand ‚Gender and Environment‘‘ in Schultz, Irmgard and Weller Ines (eds), 20-42
- Weller, Ines (1999) ‚Einführung in die feministische Auseinandersetzung mit dem Konzept Nachhaltigkeit. Neue Perspektiven - Alte Blockaden‘ in Weller, Ines et al. (eds), 9-32

- Weller, Ines and Hoffmann, Esther and Hofmeister, Sabine (eds) (1999) ,*Nachhaltigkeit und Feminismus: Neue Perspektiven - Alte Blockaden*', Bielefeld: Kleine
- West, Candace and Zimmerman, Don (1997) 'Doing Gender', in *Gender and Society* 1, 1997, 125 - 151
- Wichterich, Christa (1992) ,Die Erde bemuttern. Frauen und Ökologie nach dem Erdgipfel in Rio', Heinrich-Böll-Stiftung (ed), Köln
- Wichterich, Christa (2000) '*The Globalized Women*', London and New Jersey: Zed Books

Figure 1: Labour and the environment as a material cycle



Beate Littig, Vienna

Sustainable Work – and Women?

Pleading for a gender-sensitive socio-ecological research

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