FARMING UNDER A REGIME OF HARDER WORK: ECOLOGICAL MAINTENANCE AND DEGRADATION IN THE ORMÁNYSÁG, SW HUNGARY

Salvatore Engel-Di Mauro
Department of Geography
Rutgers University
Lucy Stone Hall, Livingston Campus
54 Joyce Kilmer Ave.
Piscataway, NJ 08854-8045

ABSTRACT: Political ecology debates in geography presently revolve around issues of environmental degradation and its differential effects according to social positioning. Emphasis on environmental maintenance, the obverse of degradation, rarely forms part of studies regarding industrialized contexts, especially those under state-socialist systems. This study addresses the relationship between a state-socialist mode of production and ecological relations by analyzing the gendered practices through which they have occurred and have been reputed to be changing since 1989. The Ormányság, an economically marginalized area of SW Hungary, provides the research context. Focusing on soil status in Hungarian agriculture, I will delineate how environmental maintenance, just as degradation, is predicated upon continuities in patriarchal gender relations under an industrialist regime based on state and/or capitalist control. The study is primarily based on interviews conducted in 1998 with rural women (including farmers), local development agency officials, and local NGO leaders. These qualitative data are supplemented by some national and area-specific census and soil data from statistical and archival sources.

INTRODUCTION

Changes occurring since the late 1980's in Central and Eastern Europe have inspired much research from a wide array of fields, especially in the study of political systems and societal organization. Save for descriptive studies emphasizing environmental devastation, this regional literature continues to eschew analyzing the social relations that result in such problems. It is of much concern that this state of affairs characterizes otherwise sensitive approaches such as political ecology, where unsupported assumptions from other fields have been uncritically incorporated (e.g., that environmental devastation under state-socialism is/was not related to market dynamics) and where, with few exceptions, the topic has received little treatment beyond cursory statements (cf. Peet and Watts, 1996: 10). This general deficiency pales in comparison to a nearly complete lack of consideration for the many studies on gender relations which demonstrate substantial continuities, rather than change (a notable exception being Bellows, 1996). In addressing this issue, I outline some relevant results originating from recent research undertaken in the Ormányság, a region in SW Hungary. Inhabitants from this area, far from welcoming recent political economic changes, describe the inception of directly capitalist relations as the intolerable increase in work with diminishing remuneration. This new regime of harder work is not experienced equally by women and men and, as a consequence, the environmental problems faced by local inhabitants tend to have a gendered character. Emphasizing agricultural practices, the study attempts to delineate the differential effects of soil status maintenance on gender relations, herein mostly represented by the division of labor. The discussion contributes to ecofeminist approaches which have effectively integrated anti-essentialist critiques from feminist environmentalists into their theoretical framework.
THEORETICAL CONTEXT

In the context of industrialized agriculture, the introduction of productivity enhancers, such as fertilizers, pesticides, and machinery, tends to maintain those ecological relations and ecosystems which primarily conform to the requirements of an elite. The environment, within an industrialist technocratic perspective, is compartmentalized into isolatable units and generally treated as an externalizable economic resource. The professed neutrality accompanying such a perspective ensures the elision of the social inequalities involved in resource distribution and environmental problems (Haraway, 1991). As one of the necessary resource components of agriculture, soils must be replenished after the extraction of nutrients through harvesting. Under regimes based on production for exchange or accumulation, its chemistry must be suited to furthering the perpetually increasing production and reproduction of certain crops or animals, and any other plant or animal that interferes with this kind of frenetic extractive process must be extirpated. The maintenance of soil productivity, however, entails general environmental degradation through the discharge of nitrates and phosphates into both surface and subsurface water, the injection of compounds into the soil itself which are hazardous to many animal beings, including humans, the accentuated erosion of O and A horizons (topsoil) through mechanized tillage, among other problems (Coleman and Crossley, 1996; Ellis and Mellor, 1995). In such contexts, ecological relations are reduced to the interaction of progressively fewer species: humans, other associated animals, particular plants, and incidental surviving beings that may acquire the category of "weeds" and "pests". Common to all industrialized countries, irrespective of political economic arrangement, a contradiction occurs between the maintenance of this type of anthropogenically altered environment and the continuous expansion of production required by economic systems based either on profit or on centralized accumulation (Seager, 1993).

These critiques have stemmed from political ecology approaches and other recent studies which emphasize an examination of the social relations whereby anthropogenic degradation is unevenly distributed according to social position and nature is constructed as environment and/or resource, as an externality. Incisive feminist contributions have prompted these approaches to consider gender as an especially determining process in the uneven effects of environmental problems. I will herein concentrate on ecofeminist approaches because of their insistence on the intrinsic, rather than coincidental, relationship of patriarchal social relations to environmental degradation. Ecofeminists have argued that the treatment of nature as mere instrument for the fulfillment of (some) humans' needs cannot be viewed in isolation from the dualistic hierarchization that pervades gender relations in the same industrialized (and non-industrialized) contexts. The oppression of women is directly connected to this instrumentalist treatment of nature; both are constructed as external and inferior realms. Ecofeminists illustrate the connection between environmental degradation and patriarchy by citing the processes responsible for women's general social positionings, especially in agriculture, which result in their being affected to a larger degree than men by environmental destruction. Examples are often drawn from economically colonized countries, but the processes occurring in those contexts arguably apply to colonizing countries as well. The relationship mainly derives from women's principal dependence on subsistence resources, their specific economic tasks, their lack of control over crucial processes of production that lead to degradation, and their exclusion from most discursive practices on resources and resource extraction and preservation. In other words, it results from the construction of womanhood, reinforced through daily practice (Atkinson, 1991; Jackson, 1994; Mies and Shiva, 1993; Peet and Watts, 1996; Sachs, 1996; Salleh, 1997: 13-14).

Despite providing illustrations from many different contexts, ecofeminists have only superficially analyzed the relationship between patriarchy and environmental degradation under and following state-socialism. Though industrialism prevailed as much as in capitalist countries, the form of patriarchal relations under state-socialism differed from that under capitalism. This difference might account for a different relationship between the
treatment of women and nature under state-socialism. I will focus on agricultural processes related to soil degradation to assess the processes leading to differential impact of environmental degradation according to gender. Maintaining soil status through agrochemical inputs and the implementation of machinery simultaneously preserves gender hierarchy. One of the procedures through which this is accomplished is through the production and demarcation of gendered spaces through daily agricultural practices. These agricultural practices are the result of gender relations which establish a framework for the division of labor and the distribution of the means of social reproduction and production.

**METHODS**

The results of this study originate from research carried out in Hungary between 1997 and 1998. Much of the work involved obtaining information from and interviewing mostly women farmers and farm workers and various government officials (mayors, county development agents, technical experts, and agricultural development researchers), corporate executives involved in local agriculture and rural development, and NGO leaders and personnel (from the Ormányzság Development Association and the Ormányzság Foundation). Participants were contacted through mayors (16), a local agronomist (one), friends (seven), and Ormányzság Foundation representatives (five). Interviews with farmers and farm workers were semi-structured and accompanied by a time budget survey incorporating work performed for the home, subsistence-crops, and cash-crops. A total of 30 people were interviewed, some individually (17 women and eight men) and others in the company of their families (five), depending on the acceptability of having a young foreign male interviewing a woman. Counting all family and household members with whom the participants are associated, the interviews represented the situation for a total of 107 people from nine villages (a total population of 7,623; KSH, 1996). Twenty families (including one household) had more than three members and four were composed solely of pensioners. Seventeen families have children or cohabiting adult daughters and/or sons. The people interviewed span a wide range of age categories, from late adolescent to septuagenarian. In keeping with the ethnic diversity of the area, these participants included Beás Romanies (five) and Croatians (five), in addition to Hungarians. Only 19 participants completed a budget survey.

Brief interviews were conducted with four soil scientists and agronomists in Pécs (Baranya county seat) and Budapest, five mayors, two government development officials, two corporate executives, NGO leaders and two other representatives from each NGO, the Chair of the Transdanubian Regional Research Institute (Pécs), three local school teachers, a current cooperative farm manager, and three former cooperative farm workers. Most of these interviewees were men. Institutes, universities, museums, local government archives, the documentation of one of the surviving cooperatives, and NGO reference collections were perused with the aim of gathering historical, statistical and census data for the villages where the interviews occurred and agronomic, pedological, and other environmental data pertaining to the political economic structure and the environmental status of the area.

**SOME HISTORICAL CONTEXT**

The Ormányzság, encompassing nearly 50 villages, is an economically marginalized area in Baranya County, SW Hungary (Figure 1). With the exceptions of three major centers, village population typically does not exceed more than a couple of hundred inhabitants (KSH, 1996). It has been relatively isolated from national development policies until 1986, when funds began to be channeled into improving road networks, public transport, and establishing food processing and fertilizer producing industries. As a consequence, state investments into the area have been historically exceeded by redistributive transfers from agriculture to other industries located in other regions.
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As in many other rural areas, the widespread mechanization of farming was not reached until the late 1960's. Prior to that, cooperative farms, established through land redistribution and various coercive means, relied mainly on the manual labor of women for weeding, hoeing, and harvesting. In an entry for 23 October, 1973, in the Sellyei Közseg Krónika (The Chronicles of the Sellye Community), the chronicler of the village of Dravasztara provides a rare description of women's work in the local cooperative: "A termelőszövetkezet asszonyai rna kezdtek a cukorrepa szedeset, de nem riadtak vissza a fagy ellenere sem ... az asszonyok dolgoztak, amíg a munkáukkal nem végezték [Today, the women of the cooperative started manually gathering sugar beets and were undeterred by the frost ... the women worked until they were finished with the job]." The stoic woman worker, toiling under freezing conditions of 4°C, is expected to endure inclement environments, while men, implicitly, have the privilege of relative comfort through the use of harvesting machines, the use of which is mentioned in other instances throughout the chronicles. Thus, past gendered production relations, observed in other areas as well, persisted in less industrialized cooperatives or cooperative branches and furthered the reinforcement of the association between often environmentally destructive machinery (e.g., soil structure degradation through compaction) and masculinity (Bell, 1984; Lampland, 1995).

Until the advent of mechanization, fertilizer inputs were largely organic, derived from animal manure, which were usually spread across fields by men. Small plots devoted to subsistence crops involved composting, as well as direct manure application, both of which were jobs shared by women and men (Fél and Höfer, 1969; Gunda and Ráduly, 1975). With the advent of mechanization came the increase in the availability of synthetic fertilizers as well, the use of which increased from 29 kg/ha, in 1960, to 276 kg/ha, in 1975 (Völgyes, 1980: 411). In the Ormányzság, by 1979, fertilizer use averaged 357 kg/ha among seven main cooperatives, according to data collected from the Baranya Megye Növényegészségügyi és Talaj Védelmi Allomas (the Plant and Soil Protection Agency of Baranya County); however, many cooperatives still relied on animal manure to a large degree even in 1982 (116 kg/ha, compared to 352 and 368 kg/ha of synthetic fertilizer in 1980 and 1984 respectively). This manure was mostly purchased from member households and families raising pigs and cattle.

The reforms of 1968, collected under the Új Gazdasági Mechanizmus (the New Economic Mechanism), permitted the establishment of private ventures through contractual arrangements with cooperatives, which provided much of the infrastructure and marketing necessary for farmers to effectively produce more labor-intensive crops. These reforms were not actually implementable until the mid 1970's, due to political economic severities incurred through the oil crisis. It was during subsequent years that household plots became more capital-intensive private ventures often dominated by men, whose member spouses would ensure entitlement to a household plot and the availability of labor inputs through maternal leave (Bell, 1984; Lampland, 1995; Vasary, 1987). Household plots were small tracts of land granted to cooperative farm members, as well as non-member technicians, and throughout the duration of the regime they never exceeded beyond one hectare in size. Nevertheless, by 1977, the productive activities in these plots sufficed to cover 25% of total exports and 33% of capitalist-currency earning exports, which served to pay debts to capitalist financial institutions. The
1980's marked a sharp increase in productivity that surpassed that of many of the most industrialized countries (Swain, 1985). But this was accompanied by crises in export viability caused by diminishing demands abroad, so that it became difficult to maintain loan repayments and purchases of crucial manufactured goods, such as agricultural machinery (and even fertilizers and chemicals) geared towards increasing productivity but, in this case, simultaneously intensifying soil degradation (Kertész, 1990). The combined effects of the industrialization of work, the employment of most men as commuters to factories, the preferential employment of women in food processing and textile industries, the increase in the availability of processed foods (Corrin, 1994; Répássy, 1991), the consolidation of soil conservation programs under the state, extension service provision (Kertész et al., 1990), agronomic schooling, and divulgation of technical gardening texts, especially since the seventies, all contributed towards a progressive alienation from environmental awareness regardless of gender.

During the same period, the production of watermelon was introduced to the Ormányság by a couple of male agronomists from Eastern Hungary, who settled in one of the villages. The importance of this crop, which is very nutrient-demanding and labor- and capital-intensive, grew to such an extent that the majority of farmers in the area are still or have been engaged in watermelon production. Cooperative farm infrastructure enabled many to continue growing this crop despite losses, the costs of which were absorbed by cooperatives and the state. Exporting watermelon abroad, especially to Yugoslavia remained a lucrative endeavor until the war. The consequences for soils were and are increases in synthetic fertilizer and chemical inputs into plots usually no larger than one ha, all of which tend to disrupt organismal activities, deplete soil nutrients, and introduce toxins into water sources through runoff and percolation, among other problems. The nutrient and water demands of watermelon so deplete soils that fallow often becomes necessary after only one cropping season. Successful farmers can reap large profits from this crop, owing to the more extended growth season compared to more southern regions, such as Greece; however, the high risks involved, such as susceptibility to crop destruction by late frosts, hail and, fungus, have financially destroyed many farmers. The patriarchal aspects of this cash-crop are discussed below.

THE GENDERED POLITICAL ECOLOGY OF HARDER WORK

With the privatization of lands through the Compensation Law of 1991, the deregulation of commodity pricing, the decrease in agricultural subsidy, the bankruptcy of many cooperative farms, and the consequent rise in unemployment (up to 90% in some Ormányság villages), most people in the Ormányság are suffering a drastic reduction in living standards, like many others living in areas principally reliant upon agriculture (Kovács, 1994; Symes, 1993; Szpirulisz, 1994). Lack of capital and farmers' increased isolation from most infrastructure and from each other has heralded a return to horse-drawn ploughing, a decrease in mechanization, and a reduction in fertilizer and other synthetic chemical inputs. A low percentage of farmers have been able to enrich themselves through the state's campaign to return land confiscated after 1948 and thus qualifying for assistance in purchasing machinery and fertilizer. The aid is rather feeble compared to agribusiness subsidies in the United States and Western Europe, but it suffices to create class divisions among former cooperative farm members. One can already observe segmentation into seasonal farm workers, diverse petty commodity producers (under contract), and (mostly male merchants) capitalists.

Those who have been able to benefit from state policies are more equipped to grow the more lucrative watermelon on their smaller plots to supplement income from other activities. Unlike past practices, watermelon growers now compete against each other to produce the crop in the earliest time possible, thereby increasing the probability of losing the crop with a late spring frost and, for many, being forced to abandon cash-crop farming altogether due to debt repayment. Watermelon is a cash-crop that exemplifies the connections between household/family production relations from the previous system to the one in existence since 1989. All of the participants who have been or continue to
be involved in producing this crop describe the current division of labor as mirroring that of the past. Men primarily manage the preparation of the plots, market and sell the crop, apply fertilizers and chemicals, employ seasonal labor, and direct family labor during planting and harvesting. I observed this general arrangement directly during a summer excursion in 1996 with the pretext of purchasing watermelons at harvesting sites. Invariably, it was men who sold watermelon, handled the finances, and commanded others’ labor. This pattern recurred irrespective of whether I or a woman colleague, who accompanied me throughout, approached the point of sale. The daily practice is supported by the interview responses, where, with few exceptions (single women and one married woman), all matters related to cash-crops are decided by men.

Time-budget data are equally revealing regarding the continuation of many aspects of past production relations. This result represents an average for an entire year and is insensitive to seasonal variability, the data for which will be furnished and discussed in later writings. In a situation of official unemployment, during a week, 80% of women’s work, or approximately 90 hours per week, occurs in the home (60%) and the nearby garden (20%), whereas 34% of men’s work is devoted to similarly categorizable tasks (14% and 18% respectively). The rest of the time is occupied by the family farm or plot and/or seasonal farm work (the only household interviewed has only a garden). When either spouse or a single mother is employed, the figures become 72% (54% at home working) and 24% (11%) for women and men respectively, with men generally working more waged hours and receiving higher wages than women. In the Ormánság, according to the study participants, this discrepancy has actually worsened relative to the state-socialist period.

At home, when applicable, women contribute an average of 29.62 hours per week to care for elderly, young, and ill members of the family, while men devote 4.45 hours. Meal preparation, laundry, canning and preservation, and other housework are all performed by women (roughly 15 hours per week), while men process grapes for wine if they contribute to these tasks at all (four hours per week). It is clear from the results of this study that socially reproductive activities in the Ormánság continue to be constructed as women’s domain through daily practice. It is important to note that, whenever a family includes multiple generations, elderly women and older daughters will reduce the amount of hours a married or divorced woman devotes to meal preparation, laundry, and other housework by nearly half. These findings do not depart markedly from those generated during the 1970’s and 1980’s for farming families and from a coeval study in Eastern Hungary (van der Graaf, 1996; Sas, 1976, 1988; Szalai, 1991).

Of most significance in terms of soil effects, most participants responded that they use chemicals in both their gardens and farms to ensure subsistence from the former and revenue from the latter. Those who do not use any chemicals would do so if they could afford them, and only three respondents (two men) stated that they are contrary to their use on principle. On the farm, mechanized forms of land preparation, sowing, fertilizer and chemical applications, and harvesting are the sole domain of men. Women will share work with their spouses on the farm in special instances, such as large plots and labor-intensive cropping systems, but in non-mechanized contexts, women do most of the hoeing and weeding. If men hoe at all, they do it in conjunction with their spouses when their land is too large for a single person to work it without machinery.

In gardens, sowing, weeding, hoeing, and manual harvesting and picking are all performed by women. Much of male labor is performed by elderly men who also receive pension benefits. Otherwise, younger men will share in the work with their spouses in the case of large gardens (usually exceeding a ha in size), especially if they grow watermelon, maize, and other more market-oriented crops. It is mainly men who, as in farms, spread fertilizer and chemicals, although women also spray herbicides and pesticides (especially on fruit trees and often for onions). In none of the interviews did women state that they apply fertilizer in either their gardens or farms, however. Men are exposed on average more (1.65 hours per week during spring and summer) than women (0.57) to the possibility of chemical poisoning during sprayings. Women process most of the food derived from gardens and farms for their families and
they perform most of the weeding in both gardens and farms. Hence, they will probably be exposed as well to herbicide and pesticide pollution by handling sprayed fruit and vegetables, in addition to performing most of the weeding. Further exploration regarding exposure issues is needed to assess risk and to determine whether it is differentiated according to gender. Nevertheless, the construction of agrochemical application as a man's task supports ecofeminist contentions regarding the masculinism inherent in an instrumentalist treatment of nature.

DISCUSSION

State-socialism, through the commodification of labor (Lampland, 1995), established the means whereby environmental alienation could occur more generally than most other social contexts because of the relatively rapid integration of women into waged work. Women's socially reproductive labor, including subsistence agriculture, continued to be extracted for the maintenance of a patriarchal state just as in capitalist countries (MacKinnon, 1989: 10). In official agriculture, this process interweaving patriarchal relations with environmental alienation required the progressive deployment of industrial methods of production that supplanted much of women's manual labor in commodity producing agriculture (cash-crops) and that displaced more organic methods of cultivation through distancing much of the male labor force from agricultural production and en masse retraining through educational and other discursive dispositifs, as well as more coercive methods. The implementation of industrial methods was effective precisely through the maintenance of patriarchal structures, which permitted the continuation of familiar divisions of labor and political economic inequalities. Women, replaced by fewer remaining men driving tractors and using other machines, progressively searched for employment outside of agriculture, in food processing plants, textile factories, grocery cooperatives, and secretarial positions in agricultural cooperatives. The inception of direct commodity production through household plots under the incentives promoted by the Új Gazdasági Mechanizmus initiated the final encroachment of industrialized food production into subsistence farming and gardening, thereby further reinforcing gender relations in waged employment within use-value production itself. This was accomplished through the establishment of extension services, training programs, and educational material aimed at primarily acquainting men with the uses of synthetic fertilizers, farming/gardening machinery, pesticides, herbicides, and fungicides. This process of estrangement has resulted in women, just as men, partaking of environmental degradation, often consciously, while at the same time relying on subsistence farming, being excluded by men from discursive practices associated with resource extraction and preservation, and being confined to undervalued economic tasks. Rather than contradicting ecofeminist claims, this finding nuances them by demonstrating their spatiotemporal specificity and indicates a diversity of effects gender relations have on ecological relations because they occur constantly in conjunction with other processes, such as class, race, age, inter alia. Constructs of womanhood through daily agricultural practice maintain a social order through which industrialized production can be effectively implemented and thereby incur environmental degradation, irrespective of women's farming activities and ecological awareness. Just as it is the case that many women participate in the maintenance of patriarchal relations, so it is to be expected that women partake of environmental destruction, as many ecofeminists presently concede.

REFERENCES


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