
Commentary

Against Political Ecology¹

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INTRODUCTION

Starting with *a priori* judgments, theories, or biases about the importance or even primacy of certain kinds of political factors in the explanation of environmental changes, self-styled political ecologists have focused their research on environmental or natural resource politics and have missed or scanted the complex and contingent interactions of factors whereby actual environmental changes often are produced. As an alternative to the present plethora of programmatic statements on behalf of political ecology, a proposal is presented here for what may be called evenemental or event ecology. Our own experience in applying an evenemental approach to research on mangrove forests of the Philippines will be drawn on for the purpose of illustration.

WHY POLITICAL ECOLOGY NOW AND WHAT IT'S ABOUT

In anthropology and related fields, the program or movement now being called "political ecology" appears to have begun as a reaction to certain features of human ecology or ecological anthropology as it was practiced in the 1960s and early 1970s. In particular, there was reaction to

¹An earlier version of this paper, with an extended illustration from Borneo rather than from the Philippines, was presented by Vayda at the 96th Annual Meeting of the American Anthropological Association, Washington, D.C., November 22, 1997. The interest generated by that presentation has induced us to publish the present article as a brief communication at a time when other priorities and commitments prevent us from undertaking a longer and more comprehensive review and analysis. The original illustration, concerning forest-product exploitation in Borneo, is summarily mentioned below.

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the neglect of “the political dimensions of human/environment interactions”—a neglect regarded as stemming from preoccupation with homeostatic or adaptive processes and, related to this, from the treatment of human communities as if they were fairly homogeneous, autonomous units involved in, or engaging in, those processes in relation to their biotic and abiotic environments (Durham, 1995, p. 249; Moore, 1996, p. 125).³

As a general rule, more attention to political influences on human/environment interactions and on environmental change itself is no doubt a good thing, since such influences are no doubt often important. Many self-styled political ecologists, however, go well beyond asking for or paying more attention to such influences. Problematically, they insist that political influences—especially political influences from the outside, from the so-called *wider* political-economic system—are *always* important, arguably more important than anything else, and should accordingly be given priority in research (see, for example, Bryant and Bailey, 1997, pp. 5–7, on “putting politics first”).⁴ This is a prescription for question-begging research (i.e., for concentrating on factors assumed in advance to be important and for thus missing both other factors and the complex and contingent *interactions* of factors whereby environmental changes often are produced).

Moreover, some political ecologists do not even deal with literally the influence of politics in effecting environmental change but rather deal only with politics, albeit politics somehow related to the environment. Indeed, it may not be an exaggeration to say that overreaction to the “ecology without politics” of three decades ago is resulting now in a “politics without ecology,” which, in violation of truth in labeling, is still billing itself as “political *ecology*” (instead of “natural resource politics” or simply “political anthropology” or “political science”) and is still claiming, in at least some of the many programmatic statements made on behalf of political ecology, to be seeking understanding or explanations of “environmental change” (e.g., Bryant, 1992, p. 13; Bryant and Bailey, 1997, p. 191 and

³The “political ecology” label has been adopted also by some overtly political movements for their promotion of alternatives to what they regard as an inherently environmentally destructive capitalist system based on constantly expanding production (see, for example, Martínez Alier, 1995). The origins of these movements seem to lie more in Marxist tradition and green environmental politics than in reaction to anything in the ecological anthropology of earlier decades. In order to maintain our focus on methodological issues which the research agenda and explanatory claims of political ecologists have raised for us about human/environment interactions and environmental change as objects of study and explanation, we do not deal with these political movements in this article.

⁴What may be operating here is a confusion of generality with priority. If so, then, as suggested by Ellis (1997, p. 61) in his comments on politicized literary criticism, the same illogic that is used for inferring from a presumed political dimension in all actions that “politics is the deepest and most important consideration in any situation” may be used for making the absurd inference that each of a dozen or more other kinds of factors—physical, chemical, economic, and psychological, for example—is likewise the most important insofar as it is also an aspect or feature of all actions.

passim) or “ecological processes” (e.g., Moore, 1996, p. 125), even though what are actually studied are political controls or political contests over natural resources and not, or at least not to any significant extent, how the resources are affected by those controls or contests.

If the object of explanation is truly to be environmental change, a programmatic alternative to political ecology is what may be called evenemental or event ecology. This does not prejudge the importance of political factors but is still duly attentive to any and all kinds of them whenever they are seen in the course of research to be interesting and relevant to explaining particular environmental or environment-related events.⁵ Our own preferred method is to begin research with a focus on the environmental events or changes that we want to explain and then to work backward in time and outward in space so as to enable us to construct chains of causes and effects leading to those events or changes.⁶ By contrast, the practice of many political ecologists, presumably regarding access to resources as always politically determined and as always important for understanding or explaining environmental change, is to focus their research on such access, or on change in such access, and to pay little or no attention to actually demonstrating environmental effects. For example, Gezon (1997), reporting on her research in Madagascar, designates her study as “political ecology” and focuses almost entirely on “how people interact to establish and contest access to resources.” In another study described by one of us elsewhere (Vayda, 1997, pp. 7–10), social scientists with a political ecology view of access were interpreting the exclusion of outside forest-product

⁵A difference between evenemental or event ecology as we are advocating it here and what Lees and Bates cogently put forward in 1984 as an “event-focused approach to ecological study” is that the latter is more concerned with human responses to environmental events than with the causes (including human actions) of those events. Although much more cognizant of environmental change than were the homeostasis-oriented ecological anthropologists of the 1960s (as represented, for example, in Vayda, 1969), Lees and Bates in 1984 were still like them in drawing on environmental data primarily for the purpose of elucidating human behavior.

⁶For arguments and illustrations in support of this method, see Vayda (1996, 1998a) and Rudel (in press). Deciding not in advance of research but rather finding in the actual course of it that certain political factors are relevant to explaining particular environmental or environment-related events can be illustrated from some of Vayda’s recent research experience. In Indonesian Borneo in 1996, he and his research collaborators found that government success in relocating forest-cutting, pepper-farming Bugis settlers from a nature reserve despite earlier reports of the settlers’ resistance to relocation could be attributed less to the decline in yields from old pepper plantations and the related factors that were initially investigated than to little publicized military intimidation of the settlers (Vayda and Sahur, 1996, pp. 43–47). Similarly, in the course of a research reconnaissance in southwest China in 1998, Vayda found that the plans that he had originally made, on the basis of other researchers’ projects and reports, for a study of increases in agricultural biodiversity as a result of farmers’ decisions and actions had to be scrapped in favor of developing a project concerned not only with biodiversity increases but also with biodiversity losses as a result of political pressures to produce particular crops (Vayda, 1998b).

collectors from certain village lands in Borneo as a conservation measure preventing the local extinction of the *Aquilaria* trees from which the valued aromatic forest product, *gaharu* (also called aloes wood or eaglewood), may be obtained. Little or no attempt was made, however, by these social scientists to obtain data on the actual status of *Aquilaria* populations in their study area, and they ignored biological studies suggesting that *Aquilaria* extinction was not likely to occur in an area before outside collectors abandon it, regardless of whether any action to exclude them is taken by local villagers.⁷

Furthermore, some political ecologists have put their practice into the service of a populist political agenda and the "green romanticism" of thinking that devolving control over resources to local communities so as to mitigate certain influences from the wider political-economic system must effect more sustainable use of the resources. For these political ecologists, changes resulting in greater community control over resources therefore rank high on both political and research agenda. These points will be discussed further in relation to the Philippine case to be described.⁸

THE RATIONALE FOR EVENT ECOLOGY AS AN ALTERNATIVE

Why are we proposing evenemental or event ecology as an alternative to political ecology? For one thing, the proposal is consistent with both philosophical and practical arguments for letting research be guided more by open questions about why events occur than by restrictive questions about how they are affected by factors privileged in advance by the investigator. But it should be understood that being guided by open questions

⁷A political ecology view of access has been set forth more systematically by Ribot and Peluso (n.d.), who state the following: ". . . in tracing out from the most local structures of forest control to larger social and political-economic relations . . . access analysis demonstrates how local physical access to forests is shaped by control over market access and labor controls embedded in relations of authority and social identity. . . ." This view of access, presented also in Ribot (1998), is entirely consistent with the following characterization of political ecology by Peluso: ". . . political ecology emphasizes the social relations within which actors are embedded and which affect the ways they use the environment . . . {and} political ecology *assumes* that larger social structures and political-economic processes will affect the actions of local resource users. . . . These structures and processes are examined in a more systematic manner, therefore. . . ." (Peluso, 1992, p. 51, emphasis in original)

⁸Some Amazonian evidence on the failure of community regulation for sustainable use (e.g., Rudel, 1995, p. 504, citing Coello Hinojosa, 1992, on the Ecuadorian Amazon; Anon., 1993, Conklin and Graham, 1995, p. 703, on the Brazilian Amazon) also bears on these points and has been cited by one of us elsewhere (Vayda, 1997, p. 5; Vayda, 1998a, p. 574). That there are exceptions to the green romanticism of political ecologists with a populist political agenda is indicated by Li (1996, p. 501), who argues for consciously *mis*representing communities as "sites of consensus and sustainability" in order to "strengthen the property claims of potentially disadvantaged groups."

does not mean considering all conceivable causes or else having the license to consider any conceivable event or action as a cause, no matter how remote from the events to be explained. What it does mean is taking ourselves, either actually or by means of thought experiments, to the time and place of those events and then asking ourselves what antecedent events occurring then and there could have brought about the outcomes of interest to us and could have kept things from turning out differently. In other words, the possibilities we consider should not be confined to those prescribed by any single or simple agenda or theory, but, at the same time, the causes we consider and seek evidence for should, as Moore (1978, p. 377) has suggested, be concrete events specific to concrete situations.

We think there is a lot to be said in favor of being guided more by open questions in our research, and we will indeed say more in the course of describing and discussing the illustrative research in the Philippines.⁹ There is, however, a second general point to be made about our proposal in light of all the hype and hoopla in social science about political ecology as an emerging field or subfield. The point is that our proposal, unlike political ecologists' programmatic statements, conforms to the heuristically productive practice of distinguishing fields or subfields on the basis of what is to be explained (in this case, environmental events or changes) and not on the basis of *a priori* judgments, theories, or biases about what will do the explaining.

AN ILLUSTRATION FROM THE PHILIPPINES

This illustration is drawn from field research done by Walters in 1997 on the causes and consequences of mangrove forest planting and cutting in Bais Bay and Banacon Island, Philippines. Mangroves are a class of tree that grow in sheltered, intertidal areas throughout the tropics. Mangroves are recognized as ecologically important because they constitute fisheries and wildlife habitat and build land and protect shorelines from erosion. Because human settlements tend to concentrate along coastlines, mangrove forests are often harvested for wood and fish/shellfish products, serve as storm buffers to property, and are frequently cleared for settlement and aquaculture ponds (Bacongus *et al.*, 1994; Primavera, 1995). The widespread degradation and wholesale clearing of mangrove forests is commonly

⁹We have said more also in other publications (e.g., in Vayda, 1996, 1998a, Vayda and Sahur, 1996, pp. 50–51; Walters *et al.*, 1999). The kind of point made by Moore about the concreteness and situation-specificity of the causes appropriate for us to consider is discussed further by various authors concerned with the explanatory use of counterfactual analysis (see, for example, Fearon, 1996, p. 66; Griffin, 1993, pp. 1101–1104; Hawthorn, 1991, pp. 107, 187, and *passim*; Tetlock and Belkin, 1996, pp. 7–8, 23–25; Weber, 1949, pp. 165 ff).

cited as one of the Philippine nation's most pressing environmental concerns.

Recent changes to forestry and coastal resources policy in the Philippines have emphasized the need to devolve greater management authority from state agencies and large, commercial interests to local communities and households (DENR, 1993, 1996; Gibbs *et al.*, 1990; Pomeroy and Pido, 1995). To achieve this, the Department of Environment and Natural Resources (DENR) is using household and community-based tenurial instruments which give leaseholders usufruct control of forests, including mangroves, for stipulated periods of time (usually 25 years). Underlying this shift in policy emphasis to more decentralized management is the arguably important social goal of promoting greater equity in access to the nation's natural resources. At the same time, it is assumed that devolution to the local level will lead to more effective, sustainable forest management. The twin plagues of Philippine development—inequality and environmental degradation—are thus seen as being addressed simultaneously.

The political issue of decentralization of control over forest resources is certainly an important subject and presumably would be of considerable interest to persons who study power relations in the Philippines, especially as such relations influence the environment. For example, Broad and Cavanagh (1993, pp. 74-80), in examining environmental changes in the Philippine provinces of Bataan and Negros Occidental, describe how elites, trying to further enrich themselves and supported by export-oriented national development policies, have destroyed vast tracts of mangroves for the development of capital-intensive prawn farms. The authors suggest that the poor fisherfolk living in these coastal areas are more inclined to be concerned about the environment because of their direct reliance on coastal resources for their livelihoods. Implicit in their analysis is the assumption that environmentally destructive outcomes would be more likely to be averted if the local fisherfolk were endowed with more secure access control over mangroves and other coastal resources.

As the following illustration will show, some of the sites studied by Walters were similarly characterized by highly unequal distribution of land, and this has had interesting implications for the mangroves there. However, the actual environmental effects of this distribution were more complex than would be expected from the analysis by Broad and Cavanagh (1993), and were often inconsistent with their underlying assumptions about the causes of mangrove degradation and conservation.

The impetus for Walters' study came from observations of important environmental changes in mangroves in two specific sites in the Philippines: Bais Bay in Negros Oriental and Banacon Island in Bohol. Natural mangrove forests in both sites had been dramatically reduced in distribution since the Second World War, and remaining natural mangroves were highly

degraded, apparently from human use (de Leon *et al.*, 1991; Walters, 1995, 1997). At the same time, mangroves in certain areas were actually showing evidence of expanded distribution, apparently the direct result of local peoples' planting and protecting mangrove trees (Cabahug *et al.*, 1986; Walters, 1995). The research was thus guided by the desire, first, to assess more precisely the nature of the environmental changes in question and, second, to understand the actual causes of these changes. Answering these questions required that we consider the potential causal influence of socio-economic and political factors, including resource access and tenure. Unlike most studies in political ecology, however, our analysis began with a careful consideration of the actual environmental changes that required explanation, and then worked outward in space and backward in time in search of relevant causal influences.

For example, between the 1940s and 1970s, wealthy landowners with property adjacent to the coast, as well as several ambitious low and middle-income entrepreneurs, cleared large tracts of mangrove forest to develop fish ponds to raise milkfish (*Chanos chanos*) for domestic markets. Some of these ponds were later converted to prawn production during the prawn boom of the 1980s, though most have since reverted to milkfish. Thus, mangrove deforestation in Bais antedated the capital-intensive and export-oriented political economy of prawn farming. Furthermore, some of these elites subsequently invested heavily in planting and protection of significant stands of mangrove forest on the perimeters of their properties. In fact, with the exception of a local ecological reserve, the largest and arguably best protected stands of mangrove forests in North and South Bais Bay are managed by local elites and entrepreneurs who acknowledge the importance of having mangroves to protect their fishponds and lands and who have the means to plant and effectively protect large areas.

Poor fisherfolk, many of them landless, have also claimed small areas near their homes for planting mangroves for *bunsod* (fish corral) poles, storm protection, and tenure security. Government extension agents acting under the auspices of aforementioned policies have recently facilitated this process by allocating mangrove stewardship tenure contracts to many such households in Bais and elsewhere. Planting in these areas is, nonetheless, very uneven in space and over time. For one, we discovered that many sites are simply not ecologically suitable for mangroves, and repeated efforts to plant in these areas have failed for this reason. The provision of tenurial instruments to fisherfolk in areas ecologically unsuitable for planting has proven to be a largely futile exercise in mangrove management.¹⁰

¹⁰These findings mirror experiences from other sites in the Philippines where tenurial instruments have been used as a basis for local mangrove reforestation and management (H. Calumpung and J. H. Primavera, personal communication).

The situation is further complicated by the fact that local peoples' claims to mangroves are often more about claims to land than they are about the trees standing on them (Walters, 1998b). For example, we documented numerous cases of mangrove sites being claimed and planted but subsequently cut by fisherfolk who had attained sufficient capital to convert their mangrove areas into what they viewed as economically more productive uses (fishponds, house sites, etc.). In at least one recent case, a small group of landless persons claimed a mangrove area, cut the trees there, developed the basic infrastructure on the site (dikes and drainage canals), and then sold the pond to a person who could afford the capital investments needed for a functioning aquaculture operation. In short, there is clear evidence that many local peoples' planting and protection of mangroves, however apparently compatible with conservation in the short term, is often motivated mainly by other concerns, such as wanting to establish land claims and associated development rights that might otherwise be taken by neighbors or outsiders.¹¹ Attaining security of tenure has had important implications for mangroves in Bais, but by no means has it assured successful planting and conservation of mangroves by either poorer or richer households.

So far, we have focused here on instances of the clearing or creation of entire stands of forest. The research also revealed that the composition and structure of many existing forest stands were being altered as a result of widespread cutting for fuelwood and construction materials. For example, ecological surveys of mangroves revealed the presence of as many as 15 different species of trees, although sites differed dramatically in terms of species composition and only five or six species were ubiquitous across many sites. These same surveys also revealed that cutting of individual trees for fuelwood and construction materials was the most ubiquitous form of microstructural disturbance in both natural and planted forests and that, among other effects, this cutting had reduced the mean live basal area of forests by nearly half. Subsequent interviews of local mangrove users confirmed these general observations and showed that, while virtually all species are cut for fuelwood, only certain species are cut for use as construction materials.

¹¹Just as similar motivations, rather than conservation, have been behind some attempts to establish the marine reserves—for example, in Papua New Guinea (Polunin, 1984, p. 273)—that have been prematurely hailed as Pacific Islanders' "traditional conservation measures" (see, for example, Johannes, 1978, 1981, Chap. 5). Similarly, in discussing whether conservation is practiced by certain Dayak villagers in Borneo rainforests, Vayda (1997, p. 7) has referred to their restricting access to their territories not, as some observers have assumed, for the sake of conservation, but rather for the sake of reserving to themselves the profits from intensified exploitation of particular forest products in demand by traders at particular times (cf. the discussion above on restriction of access to village lands in Borneo).

The most economically valued uses of mangrove wood in both study areas today are for posts in fish trap, fish corral (*bunsod*), and home construction. *Bunsod*, in particular, are abundant in both areas and there are active, albeit highly informal markets for buying and selling *bunsod* posts. In Banacon, mangrove posts are also bought and sold within and to neighboring islands for construction of homes, fences and the like. For this use, unlike the use of wood for fuel, there is a clear preference for “bakau” (*Rhizophora* sp.) because the wood is particularly strong and durable and the trees tend to grow straighter than most other common species. One consequence of this is that many persons who have made claims to mangrove areas for the purpose of plantation establishment “high-grade” them subsequently for *bakau* by cutting back and weeding out less valued species. As well, the highly unusual reproductive biology of *bakau* makes it relatively easy to propagate and plant compared to other common trees, including “pagatpat” (*Sonneratia* sp.), “piapi” and “bungalon” (*Avicennia* sp.). *Bakau* are viviparous, which means that the seeds germinate and elongate into stems while still attached to the mother plant. These elongated propagules are easily detached when ripe and will quickly sprout roots and leaves when stuck several inches deep into mud in a suitable environment. *R. mucronata*, in particular, fruits profusely and so tends to be collected and planted in much larger quantities than *R. apiculata*.

No doubt it is because of its economic value and ease of planting that *bakau* dominates most managed forest stands. In fact, most mangrove areas claimed, planted, and managed by local people tend to be virtual tree monocultures of *R. mucronata*, in contrast to even heavily cut, unmanaged mangrove areas, which tend to be characterized by three or more tree species (Walters, 1998a). This finding has important ecological implications because it suggests that the proliferation of local planting and management may exact a cost in terms of reduced species diversity, even if it leads to local expansion of mangrove forest distribution. Equally interesting is the clear influence of ecological and biological factors—specifically, the varied distribution and reproductive biology of different species—on subsequent patterns of mangrove utilization, planting, and management.

In summary, research on mangroves in Bais Bay and Banacon Island has shown that human influence on these forests is substantial. Efforts to explain particular environmental changes—including specific cases of forest expansion or contraction and changes in forest structure and species composition—revealed the causal influence of a variety of events, including some to which political ecologists would be likely to have been attracted for the purpose of explaining environmental changes. The expansion of aquaculture and the clearing of mangroves for settlement by landless are examples of such, although the case study should serve as a caveat to political ecolo-

gists who are inclined to make generalizations about the relationship between such factors as wealth and income distribution and environmental change.

Other environmental changes of interest were found to be caused by events that political ecologists would quite likely have overlooked or ignored. For example, probably the most widespread class of events limiting the spread of mangrove planting in Bais Bay is biophysical in nature: young mangrove plantations were frequently destroyed by natural causes, including wave damage, pest infestations, and entanglement by floating seaweeds and other debris. Similarly, to explain other environmental changes, such as the establishment of many plantations that are monocultures of one tree species, we would refer first to species-specific selection in planting and high-grading by mangrove planters, and then, in accounting for these practices, we would refer to decision-making on the basis of differences in not only the local market value but also the reproductive biology of tree species.

CONCLUDING REMARKS

As we have argued and as the Philippine case study and our other illustrations show, our concerns with political ecology are *not* about whether political and political-economic events can be important causes of environmental change. Obviously they can and often are. Rather, our criticisms are directed at those political ecologists who choose to privilege such factors in certain ways. One way consists of always attributing special causal significance to these factors and not admitting that other factors are, or may be, *more* important sometimes. A more extreme way consists of focusing research on political events (as in the access studies to which we have referred) and not at all or hardly at all on environmental ones and then, without further ado, using the research to make claims about the political events as causes of environmental events or changes, which, alas, are only assumed rather than demonstrated.

The evenemental or event ecology that we propose as an alternative to political ecology as a research approach offers two important advantages. First, it requires a more careful appraisal of actual environmental changes and thereby lessens the likelihood of inaccurate or erroneous claims about the environment on the basis of preconceived theoretical ideas or agendas. An example that we have given of such claims is Broad and Cavanagh's (1993) about differences in wealth and power as factors in environmental destruction in the Philippines. This claim, as we have discussed, was not consistently supported by our evidence. Both rich and poor were involved,

in complicated ways, in acts of both mangrove restoration and mangrove destruction.

There is a second important advantage. Being guided more by open questions about why events occur than by restrictive questions about how they are affected by factors privileged in advance by the investigator, evenemental ecology does not prejudge political factors to be the most important or even important at all in the case at hand, although it is still duly attentive to any and all kinds of political factors—just as it is attentive to any and all kinds of biological or physical factors—whenever they are seen in the course of research to be interesting and relevant to explaining particular environmental events. Thus, in the Philippine case study, there was due attention paid to political events, but biophysical events were found to be sufficient to explain why plantations had not spread to many sites; biophysical events helped also to explain why plantations are so dominated by one species. Such findings are in line with the point made earlier about the heuristic advantages of distinguishing fields or subfields on the basis of what is to be explained (in this case, environmental events) and, contrary to the practice of political ecologists, not on the basis of *a priori* judgments, theories, or biases about what will do the explaining.

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