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Seeing the Trees from the Biocultural Diversity: Forestry Management, Smallholder Agriculture, and Environmental Politics in Ghana

During the 1990s, global environmentalism was constructed around the symbol of a highly interconnected but fragile world. The dominant solutions to this ecological crisis were techno-scientific interventions and social controls through bureaucratic management. With the implementation of neoliberal economic policies, social control over the environment was implemented within a decentralized framework of community participation and civil society-state-private sector partnerships. Perceptions of an impending global crisis that needed urgent action favored the mobilization of communities for environmental actions around authoritarian community structures that impose controls over natural resources, rather than focusing on popular democratic consensus building. The efficacy of community environmental management came to be assessed in terms of the ability to implement effective environmental management policies dictated at the national and international level (Potetee and Ostrom, 2004). At the same time, the act of establishing controls to ameliorate a perceived environmental crisis also empowered particular community groups to act locally, controlling natural resources in the interests of global environmental coalitions (Hajer 1995).

However, recent research questions notions of environmental calamities threatening pristine and fragile environments. The new framework is premised on the conception that environments do not have an underlying ecological design, and that throughout history they have been subject to considerable shifts in their composition as a result of external shocks brought on by erratic climatic and other factors. Instability and non-directional change were characteristics of environments long before the advent of the modern period. Humans have played an important role in the reproduction of forests, and the removal of humans from many wilderness conservation areas has sometimes led to the demise of the environment, which fails to reproduce itself until human agency is once more introduced or simulated by environmental management agencies. Fire plays a role in the life cycle of many environments, and it is often associated with human interventions. Increasingly, many environments that were formerly perceived as pristine forest areas are now recognized as anthropogenic (Pahl-Wost 1995).

In the Ghanaian forest region, recent paleo-ecological research around Lake Bosomtwi suggests that as late as the seventeenth and eighteenth centuries there were exceptionally dry periods, resulting in the drastic transformation of tropical high forest into grasslands (Shanahan et. al. 2009). This period coincides with the expansion of human settlement and agriculture into the forest, the cultivation of maize from the Americas, and the rise of new imperial state formations within the forest zone. This historical record of disturbance is also preserved within the contemporary structure of much of the forest, with forest ecologists regarding the semi-deciduous forests as being largely composed of “scar tissues” (Hawthorne 1996). The only forests considered pristine (and worthy of “hotspot” status for the conservation of rare indigenous species) are the evergreen forests of southwest Ghana.

While the semi-deciduous forests may contain fewer indigenous species and more “ecological transgressors,” they often contain a much higher degree of species diversity than the more pristine forests. Thus, the disruption of forests may actually result in an increase in diversity in the recovering forest, and forests reconstituted in this way are influenced by anthropogenic factors, showing a symbiosis of human and natural elements. The wet deciduous forests of Ghana are characterized by high densities of species that are valued by humans and agriculturalists and that are therefore actively preserved in the creation of farms and arable land. The deciduous forests also have richer soils, which may partially result from a history of farming practice, including burning, which modifies the underlining acidity of many tropical forest soils. Human activities also create much organic waste in and around settlements, and the rich soil at former settlement sites often results in the regeneration of more luxuriant vegetation than in surrounding areas. Environmental scientists and policy makers have often read these developments in reverse. Forest enclaves on abandoned settlement sites are regarded as relic patches of original forest, in contrast with other areas that are identified as examples of forests disrupted by human interventions (Fairhead and Leach 1998; Fairhead, Leach, and Amanor forthcoming). Several old settlement sites and other types of areas associated with human settlement are now classified as sacred groves. These sacred groves constitute areas associated with historical events—the founding of settlements and polities, famous battles (which can be commemorated as locations of triumph or of calamitous suffering)—and with spiritual landmarks and religious orders. They are areas of serene beauty, such as headstreams of rivers, waterfalls, and ancestral burial places (Chouin 2002). Far from being pristine envi-

ronments, these sacred groves are cultural landscapes: the significance of the areas lies in their rich cultural associations as landscapes of memory associated with political identities and the emergence of a political order. Space and society are mutually constituted. The organization of power relations involves the reorganization of both natural resources and of perceptions of the natural world in ways in which the political order and its control over people and resources are reaffirmed and legitimized. Sacred groves are about not only the conservation of nature, but also the conservation of culture and power relations, the emergence of a political order and human settlement, and claims on land, resources, and people. It is only in an age in which humans perceive the environment to be fragile and open to destruction that the environmental aspects of sacred groves assume significance. In earlier epochs concerned with movements into new frontiers and the colonization of the wilderness, sacred groves must have largely been perceived as cultural landmarks.

Biocultural diversity is constructed around mosaics of human interventions and natural responses, creating environments with multiple paths of regeneration: The composition of the “natural” environment bears a human imprint, while humans manage and steward this environment to maintain what they value in a world that carries a large natural imprint. In contrast, technocratic modernization results in the bureaucratic division of different aspects of human economy and activity into distinct and discrete branches of knowledge, management, and control. This results in the creation of monocultures and discrete zoning systems associated with particular types of expertise, such as specific zones for export crop production, food production, forest reservation, wilderness conservation, and forest plantations. Although the management of forest reserves ostensibly aims to prevent deforestation by humans, forest management policies have been influenced by desires to maximize timber production. In the colonial period, foresters were concerned by the low number of timber species available in forest reserves and the relatively higher numbers in farming areas. This discrepancy was due to human interventions that preserved particular trees and created favorable environments for their nurture. Foresters attempted to create favorable management practices to increase the densities of desirable timber species. In the 1940s the Tropical Shelterwood System introduced arsenic poisoning of less desirable forest trees to create spaces for more desirable timber species. By the 1960s an overt policy of planting monocultures of fast-regenerating timber trees (mainly teak and cedrela) in forest reserves was introduced. However, the plantations were frequently destroyed by fire in the dry 1970s and early 1980s.

Since the early 1980s the Ghanaian Forestry Commission has moved aggressively into farming areas, carving out for itself a new domain in the diversity of the farm environment. This has been strategically built on a platform of community participation. The Commission has sought to find allies within the farming community willing to participate in its vision of a new global forest economy. To meet new international demands for timber during the 1980s and 1990s, trees extracted from farmlands became the major source of timber. Over 80 percent of timber exports in Ghana originated from farms in this period. This involved the extension of the concession system into farming areas, the denial of farmers' rights to the forest trees that they nurtured and preserved, and the widening of the economic base of trees that could potentially be used for timber.

Participation should be about creating entitlements for rural people to benefit from the resources they steward, and building upon their capabilities and vision to manage and create environments that reflect their aspirations. However, in practice, participation in forestry has been characterized by political maneuvers to legitimize the grabbing of forestry assets by the private sector and the state, and to build up a support network constructed around rural chiefs, who have been given the incentives of access to payment of royalties for this timber. This new regime has sought to introduce a policy of salvage felling of timber on farmlands, which has been justified through recourse to narratives about the farmers' reckless shifting cultivation practices that destroy timber. However, it was these farmers' practices that created these resources in the first place, and in the context of changes brought about by erratic rainfall and drought.

Over the last 20 years, the farm landscape has rapidly been transformed as the tree resources associated with the creation of fertile farming environments have been plundered by the timber industry. Within the ravages of the forest economy engendered by the state and international timber trade, the Forestry Commission is now attempting to mobilize farmers to plant monocultures of fast-growing timber trees, to replace the plundered biocultural diversity of the fields. A more appropriate forest policy can only develop from recognition and appreciation of the dynamic relationship between people and nature in the creation of these resources, and the importance of retaining these relationships for posterity.

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