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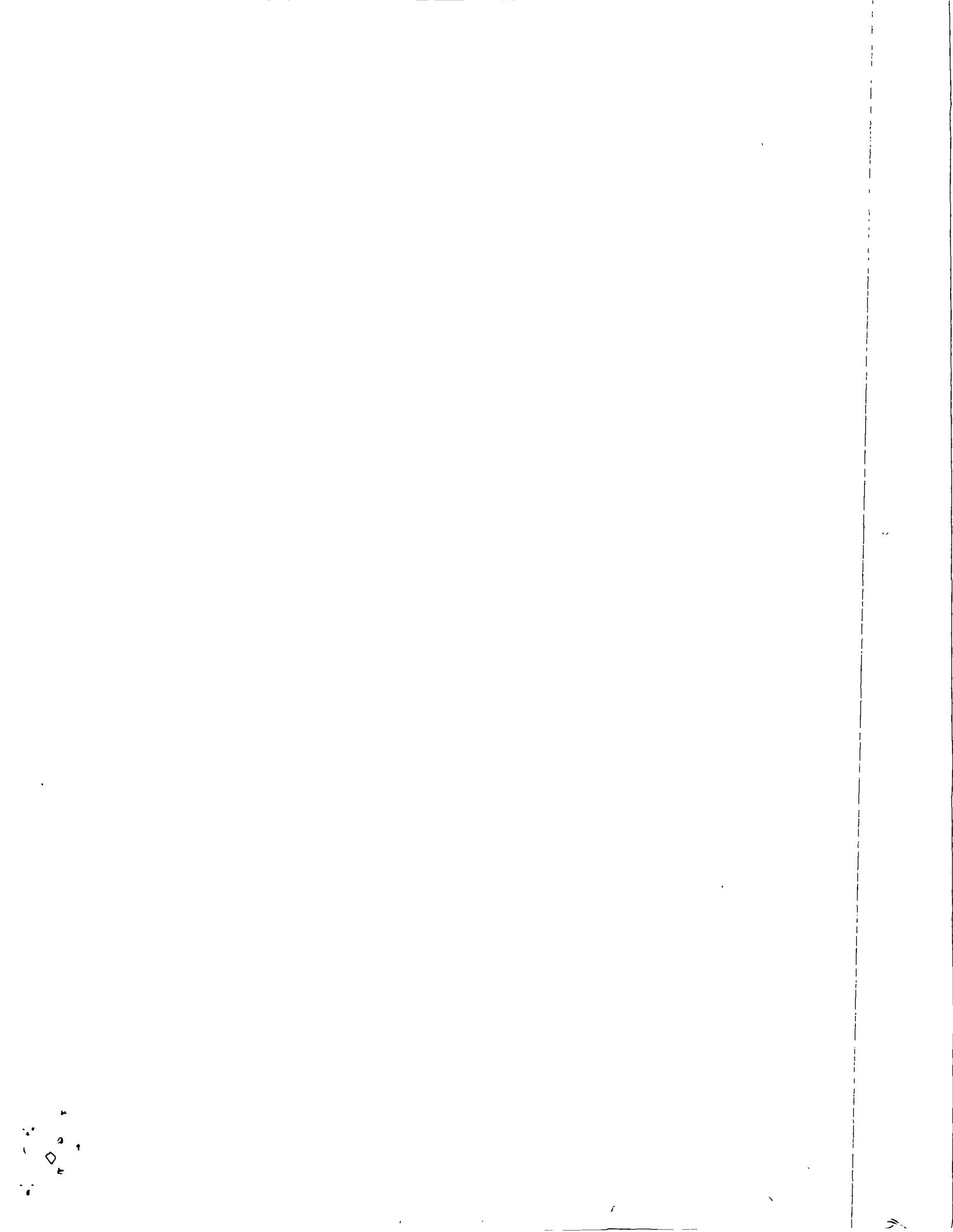
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'Customs in Common': The Epistemic World of the Commons Scholars

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'Customs in common': The epistemic world of the commons scholars

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Despite the fact that the famous model of natural resource use espoused by biologist Garrett Hardin, the “tragedy of the commons,” has been thoroughly debunked by social scientists of most stripes, the model’s assumptions -- e.g., that selfish individuals using a common pool resource will overconsume to the detriment of all -- have not only survived but fruitfully multiplied, as if driven by higher laws of natural selection.¹ Its seeds have sprouted, for example, in works of natural scientists who apply biology’s behavioral laws to complex social realities. It thrives deep in the soul of most commons theorists, even those fervently opposed to Hardin’s model, who ply their trade by identifying, protecting, managing, saving, developing, and making efficient commons throughout the world.² This commons-tragedy discourse has also shaped the thinking on the new “global commons,” led by academicians and policymakers striving to direct supranational decision-making on the gray areas of global real estate: the earth’s ozone, deep seas, “biodiverse” reserves (e.g., the Amazon), the North and South poles, the air waves, and so on. In other words, an old, dubious framework once applied to questions of the local commons (i.e., how to stop self-interested shepherds from destroying community pastures), is now being applied to saving our global commons.

Through a review and critique of the commons literature, this article makes one central point about the various positions engaged in the debate: Though they may have divergent views on the social nature of property and resource use (e.g., academic distinctions among open access, state-owned, and kin-, caste-, tribe-, and village-controlled property regimes), they converge in their essential definition of development and modernity, i.e., why this topic matters in the first place.

To be sure, the empirically based findings and prescriptions vary in content: Some studies show that particular cultural institutions (e.g., forest-dwellers’ slash-and-burn practices, animal herders’ nomadism) have become obsolete in their capacity to manage the natural resource base of communities and should be retooled to reduce degradation.³ Others find that the commons would be better off managed by a more global, market-driven logic of resource use that increases productivity, and therefore, human and nature well-being. Despite these variations, all commons debaters are motivated by the prevailing question, What should external agents do? Should they (development professionals, international finance institutions, and scholars) invest in “women,” in their sons, in skill development for wage work, or in subsistence strategies? Should local forests be better managed, more highly diversified, contained by fences, equipped with fees, fines, or subsidies? How can we transform macroeconomic policy to “sustainably develop” depleted fisheries? Do the

Pygmies have the capacity to effectively manage Cameroon's forest resources? What economic and political incentives would entice tradition-based commoners to see the trees for the forest, the domestic goods for the exportable, their provincial needs for Merck's?⁴ These questions reflect the search for the holy grail of successful commons models. Whether implicit or explicit, their prescriptions are meant for the ubiquitous professional-class "we," recommending that development professionals get investment portfolios right, for the benefit of development's alleged client, the world's commoners.

This article argues that the commons metaphor is an important icon of the "development world,"⁵ with instrument-effects resulting from professionals unreflexively engaged in the real world of Third World commoners and First World structural adjustment loans.⁶ At a moment when the commons model is being heralded as an effective and nuanced mechanism to rationalize supranational institutions managing both local resources and global environments, this article hopes to situate these debates in a critical, discursive context. That is, Why intervene on behalf of the commoner's commons? Why development projects? Why the World Bank (IBRD), World Trade Organization (WTO), UN-Environment Programme (UNEP), and World Resources Institute (WRI)? Why should Northern commons experts and developers work so hard to help Southern locals define their own property relations, and conversely, why should locals follow the prescriptions of Northern developers? In the path created by these experts scurrying to "clarify" property relations in Third World sites, I would argue that significant artifacts (e.g., institutions of power) are being left behind that undermine commoners' rights to control the knowledge produced, and ultimately — because this knowledge helps determine the role of capital, the state, and development institutions on that site — the realm of what is defined as the commons. If this is so, then the commons debate is worth mining not for insights into strategies for improving social and ecological conditions (however meaningful these strategies may be to differing interests) but for explanations of new forms of social control that can lead to intensified exploitation of all forms of nature, human and non-human. In other words, this body of literature can best teach us about "the commons project" as a hidden and not-so-hidden institution of domination and imperialism in North-South relations. If we are to learn anything from the 1992 Earth Summit in Rio — the Greatest Commons Show on Earth — it is that the objective of the Summit's major power brokers was not to constrain or restructure capitalist economies and practices to help save the rapidly deteriorating ecological commons, but rather to restructure the commons (e.g., privatize, "develop," "make more efficient," valorize, "get the price right") to accommodate crisis-ridden capitalisms.⁷ The effect has not been to stop destructive practices but to normalize and further institutionalize them, putting commoners throughout the world at even greater risk.

The following sections will present the distinctions in the commons debates, starting with the "tragedy of the commons" school, and then moving across the spectrum to three "anti-tragedy" positions, noting their discontents as well as their assumptions.

First, the tragedy

The tragedy of the commons develops in this way. Picture a pasture open to all... As a rational being, each herdsman seeks to maximize his gain.... The rational herdsman concludes that the only sensible course for him to pursue is to add another animal... and another; and another Therein is the tragedy. Each man is locked into a system which compels him to increase his herd without limit – in a world that is limited. Ruin is the destination towards which all men rush, each pursuing his own interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.⁸

Although Hardin did not invent the perspective of the self-interested individual posited against nature and society, he certainly touched a responsive nerve.⁹ This tragedy perspective blossomed within the context of an elite intellectual feud among natural scientists active in the U.S. environmental movement of the 1960s-70s.¹⁰ The politically conservative camp of conservation biologists argued that blame for the wildfire of post-WWII ecosystemic destruction should be attributed to the selfishness in people.¹¹ Their call was, and still is, for replacing communal institutions (in which footloose individuals reign) with private ownership and stronger state interventions in order to reverse the actions of the world's majority who blindly think they can have the freedom to overgraze, overconsume, and overbreed.¹² This is a political discourse with its roots in the predominant Anglo-American critique of community and common property, dating back to the fourteenth century: that the "sloth, idleness, and misery"¹³ of serfs in feudal England represented the biggest obstacle to the productivity of agriculture. Only through the enclosures of common land and forced removals of serfs could vast swathes of communal landholdings be consolidated into private holdings. The communal culture of shared land use was attacked on the basis of being "anti-progressive." As Jeremy Bentham believed, "the condition most favorable to the prosperity of agriculture exists when there are no entails, no unalienable endowments, no common lands, no right of redemptions...."¹⁴ To Bentham, the road to individual liberty and societal wealth is paved with the individual's freedom to convert land into a commercial good; for the individual to have rights to land, traditional institutions that bind people to the commons must be destroyed, and the land must be privatized.¹⁵ The leap from Bentham to Hardin is not so great as it may first seem.¹⁶

In response to this thesis, the "anti-tragedy" school emerged as a disparate group of political scientists, ecologists, anthropologists, sociologists, and economists who challenge Hardin's *magnum opus* with a litany of counterfactuals, mostly from in-the-field empirical research. They argue that the tragedy thesis is remarkable for its lack of historical, theoretical, or cultural veracity.¹⁷ Within this school, one can observe three tendencies, which I will identify as the Human Ecologists, the Development Experts, and the Global Resource Managers. The Human Ecologists, I argue below, demonstrate the complexity of the commons from a local culture- and territory-based perspective; the Development

Experts programmatically show how to restore the degraded commons, strengthen weakened social institutions, and “modernize” the Third World poor; and the Global Managers explain how the commons are not just local or the problem of the poor, but contribute to global ecological crisis. Though their collective self-image is one in opposition to the facile tragedy model, in fact, their assumptions and instrument-effects are quite similar.¹⁸

The Human Ecologists: The question of the commons

The Human Ecologists are field-based scientists who use case studies to identify the surviving features of commons tenure systems and resource management institutions throughout the world.¹⁹ In the Swiss mountains, Maine lobster fisheries, and Ethiopian pastures, these researchers have found overlapping and complex property resource regimes that defy the simplified modeling that defines what they ascribe as the dominant, Western view of public- and tribal- land and resource uses, of which the “tragedy of the commons” thesis is the most well-known manifestation.²⁰ According to McCay and Acheson in The Question of the Commons, common property is conventionally and erroneously viewed as “amorphous, diffuse, ephemeral, and unspecified in comparison with private property, and this view, when it is successful in the political and legal process, plays a role in the enclosure of the commons.”²¹

Just as they suggest, this debate is not merely an academic exercise: The tragedy interpretation of the commons can be a powerful influence in state development policy. Indeed, tragedy proponents persuasively argue that enclosures of the commons is the first step to successful modernization. World Bank policy makers, for instance, have recently increased pressure on their project managers to promote both “privatization” and “sustainability” of common lands and resources, as this strategy is considered the ticket to economic and ecological prosperity for the Third World poor.²² The Human Ecologists warn, however, that these policies must be modified to accommodate distinctions among sites, as no global template can apply to the multiple forms of the world’s commons. When seen from the ground, no two commons look alike. It is only in the field, recording everyday cultural practices and ecological cycles, that one can understand the true complexity of historically evolved and socially sculpted land and resource tenure arrangements.

For example, Patricia Vondel finds that though rice is considered by the development world as the prototype crop of the Green Revolution -- a revolution in land privatization and use intensification -- productive relations are anything but typical in South Kalimantan province of Indonesian Borneo.²³ In the swamps, rice is grown under private tenure when swamp waters recede. When swamp waters flood the rice paddies, however, common property rules prevail; the community manages the paddies for duck and duck egg farming. Same site, different property rights regimes, high degree of diversity in production, depending upon the season. One finds subsistence and commercial production side by side -- for barter or export -- depending if it is rice, duck meat, or duck egg.

Similarly, in semi-arid regions of Asia where non-intensive agriculture is practiced, some communities of landowning farmers open their fields to pastoralists during fallow seasons so that the herds of neighbors or transhumants can graze on nutritious crop waste; in exchange, the farmers receive free animal labor, animal dung, and milk products.²⁴

By and large, this literature's emphasis is on the social complexity of territory: It frames the debate as between an unimaginative Hardin model and, at the other extreme, the overimaginative romanticization of pre-modern life. In an effort to establish a middle ground with good empirical evidence, much of this terrain is covered by biologists and anthropologists in the field, asking questions, turning over stones. Consequently, the science of locality and territoriality is promoted; culture is introduced as a complex set of institutions that mitigates the worst disasters, and will continue to do so until external forces intervene or human populations outpace old institutions. In some cases, the burly state ruins local harmony, extracting rural resources for a voracious urban crowd; in other cases, it's the regional elite who displaces the commons-dependent poor, with bigger fishing boats, costly borewells reaching deeper groundwaters than hand-dug wells, and so on. The Human Ecologists argue that to maintain economic and biological benefits, commons resource sites must be "strongly defended." For wild fish and game depletion, "open access" resource regimes (or *res nullius* in Latin for "no one's property") are the main source of the problem and restricted use is viewed as the rational solution.²⁵ The logic of communal user rights is typically more appropriate, according to these academic observers, than the logic of distant state or short-sighted private actors. The Human Ecologists' attraction to local conflicts and activities, however, is also their fundamental shortfall: They are unable to see beyond territoriality and locality.

As will be discussed later, the commons exist not only in a specific place, but also on a microscopic (e.g., plant germplasm)²⁶ and macroscopic (e.g., the earth's atmosphere)²⁷ scale.²⁸ Social relations on local sites can be either the point of departure or return for inquiries into ozone depletion or germplasm expropriation, air pollution or groundwater contamination -- all not necessarily locality and territory based. But the Human Ecologist's lens does not focus well on the dialectic relations between local and nonlocal and consequently the complexities of the "outside" world become blurred.²⁹ The role of extensive structures and institutions such as the state, capitalist production relations, and ecosystemic changes are only relevant in this literature as they exist in or near "the site"; consequently, these institutions, forces, and power relations are reduced to mere artifacts. Such dynamics, as well as the specific sites and cultures under study, tend to be reified by the commons scientist. Later in the paper, we shall see why an analytical framework on the commons must not take the fundamental pillars of societies so lightly. First, however, we will turn to a more policy-oriented, utilitarian perspective on the commons. Rather than have the world revolve around the commons, as it does for the Human Ecologists, the next group of authors sees the world turning around the concept of "growth," asking how the commons can be made more productive.

The Development Experts: Making the commons work

A recent World Bank Discussion Paper that focuses on *development* as an institution of modernization exemplifies the latest thinking from this camp of the anti-tragedy commons literature. As many authors note, the World Bank is at the heart of international development; its activities, plans, reforms, and reports tend to be quite influential in professional development and scholarship communities, as well as in elite government and business circles.³⁰ Less discussed, however, is the fact that the Bank is also deeply engaged in, and on the cutting edge of, commons discourse. The Bank's Discussion Paper is a self-critical review of Bank work³¹; the two authors -- Daniel Bromley and Michael Cernea -- are not only well-known commons experts; they are impetuous reformers in the development project, for which their anthem is "putting (the common) people first."³² In this case, the people are the commoners who depend upon common property resources for their livelihood; the authors are concerned that development planners, scholars, and practitioners are putting the people last, or at least consulting them late in the project planning process. Consequently, project effectiveness suffers. Convenient for our purpose, the authors are both participating in the latest round of commons scholarship as well as situating it within a larger debate on how to improve development efforts to make the commons, and the commoners, more productive and efficient. These Development Experts, most of whom are employed by the World Bank, Western policy institutes, or environmental non-governmental organizations, can be distinguished from the Human Ecologists by their self-described task.³³ Their job is "development" and not simply discovery; their goal is to find the problem and fix it.³⁴ After reviewing their main concerns, we try to situate their work in a discussion of their objectives as development experts producing scientific knowledge about the commons.

In their paper, "The Management of Common Property Natural Resources: Some Operational Fallacies," Daniel Bromley and Michael Cernea challenge conventional Hardin-esque approaches to the concepts of the commons, property, and development project design.³⁵ They argue that most academic scholars and Bank project managers have misunderstood the fundamentally social nature of common property regimes and resources. According to Bromley and Cernea, in spite of its currency among analysts and practitioners, the metaphor of the commons being destroyed by self-interested small-scale producers is inappropriate for explaining most cases of environmental degradation. In agreement with the Human Ecologists, they argue that the commons have always been managed through local institutions, and alternatives at the state and regional levels have rarely been capable of accomplishing the task. They conclude that development projects cannot succeed without working through existing resource-dependent communities to rebuild undermined local institutional arrangements.

Bromley and Cernea believe that the fundamental logical error of the tragedy view is that property is misconstrued as an object, such as land, when in fact property represents "a right to a benefit stream." The particular type of right depends upon the actual property regime in effect, which can change over time. Four regimes are conceivable: state, private (individual), common, and open access. Each has its distinct characteristics of resource management and social institutions. To understand the processes of resource degradation or sustained use, one must start with an understanding of the historically

specific nature of property and institutional arrangements at the site.³⁶ The authors show concern that this straightforward agenda has been missing from development work at the World Bank and throughout the development world. They recommend that development's agenda for action in the 1990s focus on building rural managerial capacity as the first step toward "sustainable productive use of natural resources."³⁷ Though they acknowledge that the World Bank and its colleagues regularly initiate jazzy new fads — "end poverty," appropriate technology, basic human needs, integrated rural development, "women in development" — they expect this one, because of its intrinsic logic, to stick.³⁸

These authors note that the conventional tragedy literature fails to focus on the negative externalities of private and state property regimes, even though processes of environmental degradation are not unique to a specific type of property relations. Here, the authors find an asymmetrical logic in the tragedy literature, where blame for resource abuse is unequivocally attributed to the property structure of the commons; yet when resource degradation is found elsewhere, such as on private property, the cause is attributed to external and cultural circumstances, such as taxes or rent seeking.

This is their general critique; a more nuanced set of arguments emerges from their discussion of the shortcomings of World Bank projects seeking to improve the commons. Good and bad examples are discussed. In Somalia, the Trans-Juba Livestock Project was an unmitigated disaster because, like so many other Bank-financed projects trying to develop common lands, developers "proceed in the absence of a clear understanding of the sociological context and institutional arrangements (including property rights) on the ground."³⁹ Bank staff and development consultants, they find, have little or no knowledge of the local conditions, which is a recipe for dismal project failure.⁴⁰ But, as Bromley and Cernea are quick to note, Bank staff are not the only ones with a "knowledge problem":

The lack of adequate sociological understanding and competence is often common among local government officials and technical specialists, who mistakenly assume that simply belonging to the local culture automatically gives them the skills needed to manipulate and change it.⁴¹

When they looked further into World Bank staff reports, they were surprised to find a whole series of fallacious assumptions, half-truths, and generalizations regarding the status of local land tenure, land use, and economic behavior.⁴² Bromley and Cernea conclude from this internal evaluation that many projects are designed with a "lack of solid data base," insufficient input from local participants, and inadequate skills to bring about productive change. What to do? They advocate a shift in emphasis, from things to processes: Rather than design a project to improve a forest or grassland (i.e., things), design one to strengthen local managerial capacity (i.e., process). They criticize development assistance, which "has, for too long, been predicated upon an assumption that money and some technical assistance ... would facilitate the process of self-help at the village level."⁴³

Despite their acknowledgment of past errors, it appears that this newly sensitized version of development assistance is not so different from the old: peddling money (i.e., the Bank loan, without which there could not be a project) and technical assistance (i.e., imported goods and services) based on the development experts' calculations of the local situation and needs. Under revised conditions, apparently, the experts would be better prepared.

Bromley and Cernea's report is less a challenge to conventional wisdom on the development community's understanding of the commons, than it is a call to step up the process of acquiring local data and knowledge. Indeed, this call reverberates throughout the "anti-tragedy" and development reformers' work. Whether the knowledge is of one's research subject or development client, these reformers argue that international experts are misunderstanding the world's poor commoners. With piecemeal knowledge, the commons -- and their restoration -- will remain in crisis. This serious claim, however, begs for an explicit, and reflexive, declaration as to what this knowledge is, what it is for, and whom it will serve.

Contextualizing the debate's silences

Overall, the intellectual boundaries inscribed by this debate are quite narrow: They fall within the very small time and space frame of a project, local clients, and a development team. The discussion is silent on other relevant actors and larger time horizons. To expand the context, one would need to ask of the Somalian pasture development project, for example, what are the World Bank's macroeconomic policies for Somalia?⁴⁴ What are the implications for property relations nationally and across social classes, as well as the uneven economic effects of Bank loan disbursement and repayment conditionalities? How do *these* "processes" affect the local commons, user groups, project design, and Bank staff constraints? Neither Bank staff nor Bank "clients" are as unknowable or inflexible as they are perceived and portrayed. Both act within a set of constraints that remain unexamined by this literature.⁴⁵ Perhaps Bank staff do not bother to obtain local data because it would be irrelevant to their policy objectives. Or perhaps their job requirements do not allow for time- and labor-intensive data collection in regions where electricity and safe drinking water are extremely scarce, not to mention in places where there are no "qualified" cultural anthropologists and western-trained field researchers who speak the same scientific language. Though scientific shortcomings on the commons is defined simply as a lack of knowledge, the authors erroneously assume that a lack of knowledge on H Street at World Bank Headquarters equals a lack of knowledge, period. Can it be that "locals" are ignorant regarding their own affairs, property relations, rights, social relations? It could be more accurately asserted that the world's population is truly ignorant as to how to encapsulate life experiences and social conflicts into concise Bank data for project promotion and normalization of development practices. Could these scholars be suffering from the biases of ethnocentrism?⁴⁶ No, the problem is far greater than a case of misinformed reformers.

Why do Bank staff, as the authors assiduously claim, have insufficient data bases from which to work? Perhaps, the answer is self-evident: If social scientists from around the world have yet to “know” local conditions, as the Bromley-Cernea critique rightfully suggests, how can we expect perpetually rotated, Washington, D.C.-based Bank staff to pick up the slack within the time frame of a project’s handling period, and in project sites dotting the world map? If it takes a decade, to be generous, for the classically trained anthropologist to limitedly know a village community, how many lifetimes would it take for a Bank anthropologist to know hundreds, as their heavy project load, spanning whole continents, requires?

For all the lack of self-reflexivity that Bromley, Cernea, and others claim to have found amongst developers, the same can be said of them.⁴⁷ They fall prey to tendencies which one astute observer, Majid Rahnema, notes of the post-WWII concept of “poverty”:

... almost all the definitions given to the word are woven around the concept of “lack” or “deficiency.” This notion reflects only the basic relativity of the concept. What is necessary and to whom? And who is qualified to define all that?⁴⁸

Debates about accuracy of data and utility of knowledge are not new to social science, not even to those who study development. One example is the controversy on the condition of the commons in sub-Saharan Africa. In the midst of heated debates (and much human misery) about “the food crisis” in Africa in the 1970s and 1980s, analysts found fundamental flaws in data on which scholarly arguments were built regarding its existence, extent, and cause.⁴⁹ If the data on food production yields are dubious at best, from province to province, nation to nation — as many scholars on Africa argue they are — how can the “continent’s food problem” be uniformly explained and transcontinental development action plans be drawn up? In spite of its own acknowledgments of poor government data, the development world did not hesitate to draw simplistic and reductive conclusions: production yields have dropped, agriculture in Africa has stagnated, and greater external intervention (e.g., financial loans and grain, chemical inputs, and equipment sales) is necessary to end the crisis.⁵⁰ Since the development community has guided the world through the Green Revolution, it finds itself with, as Africanist scholar Sara Berry ironically notes, a “comparative advantage in providing the material means, as well as the financial and organizational capability, to achieve the breakthroughs in agricultural output and productivity which Africans have apparently failed to produce for themselves.”⁵¹

There are many reasons why data would be problematic: On the collector’s side, it is hard to identify the characteristics of the population from which to draw a representative sample; on the provider’s side, rural producers have been reluctant to be informers for production data when such data lead to higher taxes. That is, as African governments have increased regulation and taxation of market transactions, producers have shifted their goods to non-regulated parallel markets.⁵² Hence, market-based data in Africa have failed to measure true food production. Consumption, trade, and social reproductive behavior of self-sufficient, non-exporting rural households have been ignored by statistical inquiries

depending upon formal market data. Furthermore, these phenomena cannot be measured by economicistic methods.⁵³ Despite the paucity of meaningful data, World Bank officials nonetheless concluded that there existed a dire “food crisis,” and called for rapid agrarian change through multi-billion dollar loans tied to major structural adjustments of national economies and governance institutions. Without a scientific leg to stand on, the development world brought in the era of structural adjustment with a bang, and its resonance is being felt throughout Africa.⁵⁴

Critics of these “development-fix” practices take great pains to demonstrate that the only global explanation one can make about property relations and regimes across the African continent is that none can be made. What constitutes social production and reproduction on the pastures, watersheds, forests, planted fields of Africa? Sweeping claims about common, village, private, or household property, cannot capture the variation and dynamics of social, cultural, political, and cultural relations. For development experts to assert they have a game plan for making productive relations on common property “better,” “more efficient,” and “sustainable,” they have first to construct a world of values and property relations which befits an imagined reality. To do so, they must agree to a definition of property – as well as appropriate mechanisms for interpreting the “true value” of property and natural resources (e.g., prices) -- however far removed these definitions are from the irreducible material activities of resource-dependent communities. When the development world ignited a fire of structural adjustment activities under the hides of Africans, it insisted that social reproductive capacities (e.g., morals, norms, forms of cooperation, kinship networks) would adjust accordingly. In fact, a well-oiled sea change of material life in rural Africa did not occur as planned. Instead, these interventions have reversed macro-economic trends of the previous decades: increasing net capital flows to the North, steadily falling per-capita income, decreasing welfare expenditures, deteriorating public infrastructure and goods.⁵⁵

Global Resource Managers: The commons catastrophe, the global solution

We have thus far established two types of commons experts: the Development Expert and the Human Ecologist. The conundrum of the disintegrating commons is also studied and maintained by a third category of expert, whose focus is global. Unlike the human ecology scholars who have criticized the tragedy literature for misunderstanding local institutions, knowledges, and cultures, and different from the development planners and scholars whose concern is refining the institution of development in its efforts to restructure the commons, this third literature is produced by expert “world watchers.”⁵⁶ They have their fingers on the pulse of the earth and are in the process of drawing up and quantifying a new global map of incalculable risks, shortfalls, and disasters. For these world watchers, the commons is neither an isolated pasture nor a continent’s capacity to produce food. Their concerns rest with a set of global commons whose degradation threatens to imperil all life on earth -- the earth’s ozone shield, the deep blue seas, terrestrial biomass, the world’s atmosphere and climate, and toxic-contaminated communities. Representative of this perspective are the Worldwatch Institute’s State of

the World annual reports, the World Resources Institute's studies, follow-up work from the 1992 Earth Summit in Rio, and so on. These texts are not just available to small segments of the academy: Worldwatch's products alone are translated into twenty-seven languages and distributed free to world leaders in politics, media, business, academia, and development. Global Resource Managers (GRMs) are global in their knowledge, reach, and impact.

The data on the global commons are indeed quite compelling.⁵⁷ The air: one in five breathe in air more poisonous than WHO basic standards, leading to a range of health ills, including severe lung and brain damage. The atmosphere: seven billion tons of carbon released into the atmosphere each year, affecting the world's climate. The ozone shield: holes are beginning to show in the Southern hemisphere, which are being associated with rising rates of skin cancer. Land: humans today appropriate 40 percent of the net primary product of terrestrial photosynthesis by harvesting the earth's biomass; in 35-40 years, when the human population doubles, our survival will require 80-100 percent appropriation of the earth's biomass -- a practical impossibility. The oceans, rivers, forests, and subsoil aquifers have become victims of open-access strategies and are consequently being over-mined and over-contaminated. Switching our gaze from local phenomena to the global, these commons experts show us widespread deforestation, carbon overload in the global atmosphere, climatic changes, elimination of biological populations, erosion of watersheds, polluted air, diminished habitats for wild animals and reduced spaces for productive human use.

Though these planetary concerns are not practically relevant to the work of most traditional commons researchers, they are integral to that of the newest commons marshals, who are spearheading the effort to define and more efficiently manage the global commons. Though the atmosphere, oceans, and public common space are often thought to be open-access regimes, in fact, formal international organizations have been constituted to regulate access and monitor their (mis)use. The oceans are regulated and monitored by a number of supranational entities: the International Whaling Commission passed a moratorium on whaling in 1985; the London Dumping Convention of 1972 manages the ban on ocean dumping of highly toxic pollutants and radiation waste (by 1983, low-level radiation waste dumping was also banned); the Law of the Sea enables states to regulate access to a 200-mile zone from their coasts; the Commission for the Conservation of Antarctic Marine Living Resources controls mining of the Southern Ocean. Agenda 21 of the Earth Summit is negotiating stronger laws to better protect the seas; the Global Environment Facility of the World Bank has begun to fund Black Sea restoration and other clean-up projects.⁵⁸ These organizations and their professional consultants are becoming equipped to gather the data and are uniquely situated to become, in a sense, the modern stewards of these global commons.⁵⁹ As they do, they constitute public spaces and resources as the new commons to be monitored, measured, regulated, and administered. In this world of global resource managerialism, Worldwatching has become essential.⁶⁰ As it turns out, GRMs have replaced the barefoot peasants as the "experts" on the commons; now, within the new discourse, it is their knowledge, rules,

sciences, and definitions that have become paramount for explaining ecological degradation and sustainability.

By shifting the commons inquiry from local to global, pastures are no longer simply defined as sites of conflict between or amongst pastoralists and farmers, but are rationalized as small fragments of terrestrial biomass whose misuse negatively affects not just local or regional populations, but us all. In other words, local commons-use patterns in the South are also a problem for the North. Yet, in an effort to generalize about the cumulative impact of local patterns, this epistemic community of GRMs has tried to operationalize the problematic tradition of the local commons model. From the lowly commoner to the powerful nation-state, they find that all act based on a rational set of rules, making decisions based on a restricted menu of economic choices. The problem that most perplexes GRMs is: What are the most rational, professional, informed, and efficient commons institutions available to facilitate these decisions? This question suggests a context and epistemological framing that has been left unexamined by the commons literature; the following discussion will highlight two aspects of this lacuna.

Global resource managerialism becomes the authority on the commons

World economies are depleting stocks of ecological capital faster than the stocks can be replenished. Yet economic growth can be reconciled with the integrity of the environment. (*Scientific American's Managing Planet Earth*)⁶¹

Implicit in the handling of local commons problems by global actors is that these concerns are no longer local; hence, they require global intervention. Indeed, new institutions are being formed to manage these problems: global climate treaties, multilateral trade pacts, chemical-use bans, international review panels. They use multilateral legal procedures, Northern-based think tanks, high-flying economic theory, and development-bank capital to identify the source of these new problems, develop the tools, and perform social experimentation to pursue the elusive solutions to managing planet earth while not compromising “the integrity” of the growing world economy.

The handling of the case of the atmospheric commons exemplifies this discursive shift away from the local and into the hands of GRMs. The rapid degradation of the earth’s atmosphere by carbon dioxide, chlorofluorocarbons (CFCs), and nitrous oxide is a scientific and empirical indictment of the dominant path of industrialization. The U.S., western Europe, and Japan produce almost 50 percent of the world’s carbon dioxide; in the U.S., the carbon dioxide comes primarily from smokestacks of electric utilities and other industries, from commercial and residential heating, and from motor vehicles.⁶² Seventy percent of the CFCs which eat away at the earth’s ozone layer has been manufactured and released from refrigeration, air conditioners, and solvents from Western capitalist countries. Nitrous oxide is a byproduct of the petrochemical-based fertilizer industry, fossil fuel burning, and deforestation. Over the past ten years, global warming and destruction of the earth’s atmosphere has been described as the “ultimate” global commons problem. That the earth’s climate is being engineered, and warmed, by the worst

effluents of this century's industrialization does offer hope that an ozone-friendly re-engineering is also possible. But, according to some experts, a 60 percent reduction in fossil fuel use is necessary to stabilize global climate.⁶³ How do GRMs perceive the solution?⁶⁴

With respect to the carbon dioxide problem, GRMs advocate that the rapidly industrializing countries of the South (e.g., Thailand, Mexico) use unleaded gasoline, equip vehicles with the latest pollution-reduction equipment, build new factories and power plants following the stricter regulations of Western-based facilities. If GRMs had their way, every new car on every new road throughout the South would meet the world's highest standards for efficiency and pollution reduction. But the question remains: What effect will these "green" industrial policies have on the commons, both global and local?⁶⁵ Director of Washington, D.C.-based Worldwatch Institute, Lester Brown, argues in his *tour de force*, Building a Sustainable Society, that many global consumption habits cannot be construed as local creations. Brown recounts how the collusion of giant U.S. corporations such as Standard Oil, GM, and Firestone (oil, auto, rubber) in the post-WWII period effectively led to the replacement of rail-based urban transport systems with their own, ecologically destructive brand of transport: the gas-guzzling, carbon-emitting car.⁶⁶ Despite his structural description of the problem, he finds the solution to rest in the hands of individual "consumers": If U.S. consumers were better armed with the facts (i.e., that their obsessive driving habits are destroying the planet), they would change their behavior. In turn, private corporations would be forced to retool their research-and-development capacities, responding efficaciously to a sea change in consumer demand.

World Resources Institute (also based in Washington, D.C.) warns that if current trends continue, cars and trucks will become "the world's dominant consumer of energy and the largest source of both global and local air pollution within 35 years."⁶⁷ WRI concludes that pollution reduction and energy efficiency can be greatly enhanced by technological advances being invented by private oil and auto multinational corporations, such as unleaded gasoline and stratified-charge engines. Thankfully, these technological innovations may not only save the atmospheric commons, they may do so without much inconvenience to Northern consumers. As WRI sees it,

Energy conservation was once unfairly linked to the need for drastic cutbacks in living standards. Although some changes in human behavior are clearly appropriate, conservation efforts are now strongly focused on introducing new technologies for producing and using energy more efficiently and on improving energy management. By increasing energy efficiency, demand can be reduced without adversely affecting personal lifestyles or a country's economic growth. In fact, increasing energy efficiency can even enhance them.⁶⁸

This position of the GRMs, however, contains a fundamental contradiction: that carbon dioxide emissions can be reduced with greener technologies and selective user fees, introduced within the context of an expanding industrial capitalism. GRMs' plans for Third World transport systems reveal this quite clearly: First, though GRMs advocate that each new car or truck to hit the South should include a pollution-reduction device

(capable of reducing carbon monoxide but not carbon dioxide), the quantity of pollutants emitted into the atmosphere would continue to rapidly increase in the aggregate, thus imperiling the atmospheric commons. Second, most capital goods (e.g., auto plants) originate in the North; hence, this narrative explains more about the expansionary demands of the North's industrial base than it does about the demand in the South to rapidly industrialize with the latest technologies.⁶⁹ But the North's industrial base will continue to expand, and pollute, as it caters to the expanding "needs" for capital goods by the South — demand stimulated by Northern finance capital and development banks. Third, each industrial expansionist project requires more raw materials extracted from the earth, rivers, forests, aquifers, and from workers. Industrial production requires a site, and most production sites have an impact on local commons; yet *their* despoliation and transformation are never discussed in the global commons discourse.⁷⁰ Ironically, the "local" has been completely expunged from the GRM commons exegesis and replaced with an undifferentiated logic of global resource managerialism.⁷¹ For the GRMs, "sustainable development" is just another way of saying that world economic growth rates can be sustained without destroying the earth.

Globalizing the commons discourse

In their reform-minded article, "On the strategy of trying to reduce economic inequality," Nobel Laureate Trygve Haavelmo and Stein Hansen argue that there are three prerequisites for "good" development solutions in the context of globalizing tendencies: good knowledge as to how to change the world's destructive development path; "an addressee to receive this knowledge"; and an "internationally accepted body [with] the authority and power to choose the future path of development and enforce it."⁷² This statement typifies the collective denial in the GRM literature of the history and nature of this type of authority and power currently accountable to no popular community.⁷³ In this literature on the global commons, the experts have decided the problems are so complex, so catastrophic, and so immediate, that there is no time or political space to make these decisions collectively or varyingly, based upon the historical needs of different social groups and the ecosystems on which they depend. Worse than in the works of the site-based Human Ecologists or the project-based Development Experts, the Global Resource Managers have completely spliced out the local, the vitality of the commons, and the activity of the commoner. Only "docile bodies" and subjectless sites remain.⁷⁴ As Haavelmo and Hansen imply, development is a singular discourse, to be "received" by one (docile) community and to be authored by another..

This lack of epistemic reflexivity can also be found in a special issue of the development world's main scholarly journal, World Development.⁷⁵ The authors — all certified GRMs — construct a world full of cooperation and "institutional innovations that transcend the state": global institutions that can manage global resources and trouble spots in a world of ill-equipped national and regional institutions. Their call is for a global central bank, debt facility, industrial board, energy policy, environmental protection agency, progressive income tax, etc., with greater powers to negotiate international disputes. In managing the

global commons, GRMs have replaced case studies of local conflicts over scarce resources (e.g., the Human Ecologists' parable) with "a global *human* commons" regulating

access to the global *natural* commons in a way that (1) minimizes and/or mediates conflicts among nations and other interest groups; (2) insures increasing equity of access among those groups; and (3) moves toward sustainable resource use so as to balance the needs and wishes of the present generation against those of future generations.⁷⁶

In these utopic revelations on how the world could become a better place through global board meetings, GRMs do not seriously examine the Third World's experience with existing institutions. After all, the IMF has been a *de facto* central bank for the world economy for years, the World Bank the central planning agency, and GATT the central trade agency. While GRMs insist that the biggest problem with global bodies such as the IMF is they do not have enough power, their historiography of international institutions masks the hegemonic activities of these interstatal agreements, multinational corporations, international banks, and business cartels.⁷⁷ The end of the cold war does not mark the end of hegemony, as some GRMs would believe⁷⁸; it can, however, mark the moment where the real interests and unequal power relations of existing international institutions are laid bare.⁷⁹ Yet, instead of a reality check on commons institutions and crises, the local and the global are interpreted through a discursive lens in which GRMs see an exciting new world of rational cooperation and modernization aimed to enhance the collective good.

This discourse, of course, does not go unchallenged. A leader in global resource managing, World Resources Institute (WRI), slipped slightly from its high horse after publishing a report that framed the global warming problem in terms of the behavior of the Third World poor.⁸⁰ The report argued that one simple step towards reduction of methane gas production, a global warming gas, is for Asian households to keep fewer methane-producing cows and cultivate fewer methane-releasing rice paddies. Everyone can play a role in saving the planet, the argument went, poor commoners and rich profiteers alike. However attractive, rational, and populist the report's conclusion may have seemed, the Centre for Science and Environment in New Delhi accused WRI of practicing "environmental colonialism."⁸¹ By neglecting to distinguish between "luxury emissions" such as air conditioners and automobiles in rich capitalist countries and "survival emissions" from rice and milk production in poorer capitalist (e.g., India) and socialist (e.g., China) countries, WRI, according to its Indian critics, has been caught gazing primarily at Asia's poor producers while trying to find a sound solution to the world's atmospheric problems. According to the WRI report, India will be increasing per capita emissions by an estimated 400 percent from 1990 to 2024, as compared to the U.S.'s 70 percent. The fact that most of the carbon dioxide emitted since 1900 still exists in the earth's atmosphere, that this build-up represents the main source of the problem, and that it has been mostly produced by a handful of industries within western capitalist countries, is neglected by the GRMs.⁸²

Critics argue that this ecological discourse has conjured up a series of “Orientalist” specters that miscast the South as rapidly reproducing Third Worlders who have become uncontrollable consumers, polluters, and unaware global citizens, a la Hardin’s worldview. Implicit in this thinking is that global resource experts consider the world’s most numerous resource users, Third World peasants, as subordinates.

In other words, the change that must happen [as advocated by this commons discourse] requires unprecedented action carefully guided by the experts of the West. Because the Third Worlders do not have this knowledge -- but instead are caught in a chronic pathological condition -- the scientist, like a good doctor, has the moral obligation to intervene in order to cure the diseased (social) body. ... [In this message] one can discern the authorial stances of a father/savior talking with selfless condescension to the child/native.⁸³

Instrument-effects of the anti-tragedy perspectives

What is at stake in these [development] strategies ... is an entire biopolitics: a set of policies regulating a plurality of problems such as health, nutrition, family planning, education, and the like which inevitably introduce not only given conceptions of food, the body, and so on, but a particular ordering of society itself.... The biopolitics of development continues the deployment of modernity.⁸⁴

In spite of the apparent fecundity of the scholarly literature and its robust challenges of the famous straw-man “tragedy of the commons” position, this survey has sought to show that these literatures are anything but oppositional. In practically no instance do the commons experts of any school engage in an analysis of modernity, development and its institutions, and the way in which they, as strategically situated Northern actors, actively construct the knowledge/power relations they have with their subjects/clients. On the contrary, their work affirms and legitimates the latest round of World Bank edicts on modernity and development, which propose that “the achievement of *sustained* and equitable *development* remain the greatest challenge facing the human race.”⁸⁵

Despite the fine-tuning of plans developed to help the commons — from valorizing mineral reserves and urban real estate to adopting international trade agreements and population control policies — projects, programs, and processes fail time and time again. One only needs to look at the World Bank’s self-funded evaluations to learn how dismal its “success” rate is, even by its own standards.⁸⁶ These auto-critiques send development scholars and planners back into their laboratories to recast ways to fund and intervene onto more sites with the hopes of succeeding, at last. Our argument is, as anthropologist James Ferguson finds from his own research, “that what is most important about a development project is not so much what it fails to do but what it does do.”⁸⁷ Access for domestic and foreign capital to more remote zones of resource- and labor- rich sites is being accomplished through social experimentation and state expansionism in the name of “making the commons work.” In most cases, Third World state development agencies become the guardian of a relatively large influx of foreign capital intended specifically to

restructure social-natural relations in “undeveloped” areas so that projects, and the state itself, can set root and capitalist relations can grow.⁸⁸

The science of development is further refined based on this process of increased intervention into new sites and bodies. Today, both sides of the commons literature (tragedy and anti-tragedy) argue, with equally feverish pitch, that a new science of resource managerialism is required, with themselves at the helm. Whether it be rapidly eroding coral reefs off the coasts of the South Pacific, famine in the pasturelands of sub-Saharan Africa, rainforests in Latin America, or another failed World Bank development project, they are unified in their belief that the crisis on the commons must be universally tackled and rationalized by well-trained teams of international experts sensitive to local needs and ecological capacities. This most recent round of problem-solving, however, should be understood within the context of the historical practices of these imperialist processes. According to Escobar,

What must be analyzed is how the peasant’s world is organized by a set of [externally contrived] institutional practices. One must also investigate how the institutional practices and professional discourses coordinate and interpenetrate different levels of social relations; that is, how the relations between different actors (peasants, mothers and children, planners, international agencies, agribusiness corporations, and so on) are rendered accountable only through a set of categories that originated in professional discourse; and, finally, how the latter implicate other types of relations, such as class and gender.⁸⁹

Over a period of more than forty years, a seamless series of detailed projects have been deployed by elite institutions, universities, and professional organizations, in newly carved careers of sustainable development, commons management, and anti-poverty policy, producing new idioms, standards, performance schedules, and evaluative procedures.⁹⁰ These professions have been mostly self-referential -- plans, tools, methods, evaluations performed for the satisfaction of professionals themselves -- and wholly unrelated to the worldviews and ideas of the so-called beneficiaries whose perceived “lack” is the key signifier for this discourse. The full array of development enthusiasts view the trouble of the commons similarly: The global commons crisis is still attributed to the actions or inactions of the preconceived individual subjects -- most of whom live in the South and are resource poor. Solutions rest with private actions and global organizations flush with money to transform and regulate; global agencies mobilize a whole range of financial, intellectual, and political resources to expeditiously transform the world’s commons as a project of modernity. Yet these agencies are driven by discursive practices of privatization, production intensification, integration, and capitalization.⁹¹ Each process, alone, runs the risk of degrading local commons, institutions, and ecosystems; in combination they have proved to be disastrous.

The flip side of the common’s resource-degradation argument is the overpopulation card, or the argument that there are “too many people” for the planet’s carrying capacity. Reformers consider the “over-population problem” as a commons problem that can be solved with more social control of the commoner’s (social) body.⁹² This, of course, is the

final terrain of state intervention, with serious racial, class, and gender implications: The preconceived subjects of population policies are uniformly poor darker-skinned women who are otherwise completely voiceless and invisible in decision-making apparatus. In this discourse, their only *visible* decision is the one that is purportedly destroying the world; it defines them uniformly within the discourse as (reckless) reproducers. The last terrain of social control in the late 20th century is one's body, physical desire, and manifestations of love, and these are the last uncolonized sites that dominant discursive practices have sought to control, in the name of saving the global commons. The rationale for such problematic interventions, i.e., sterilizations (usually by coercion or force), is that the commons is also "ours" to save, and no longer just the realm of the culturally enigmatic and undisciplined subject, the Third World commoner. Once physically re(-)formed (i.e., without functioning reproductive organs), the commoner will learn to live, labor and behave on the public commons more rationally; but if she doesn't, at least her ability to reproduce will have been deterred. One can see the parallel motives of distant global resource managers implementing bio-social plans to both regulate the commoner's body (and capacity to reproduce) and the commoner's natural resources (and capacity to produce). These are a few instrument-effects of the commons/development world, tragedyists and anti-tragedyists alike.

Why so much interest in the commons?

The topic of "reinventing the commons" has regained currency amongst development planners not simply because of their slow learning curve -- as Bromley and Cernea note -- but for more substantive reasons. First, the commons crisis has ignited social movements that threaten the workings of development, state, and economic institutions, and second, the rapid and large-scale degradation of the world's air, water, forest, and biogenetic resources threatens the reproduction of capital.⁹³ It is in response to these challenges that many elite scholars, international finance institutions, and state agencies bother to search out local sites of ecological stress, and then send in their high-priced professionals to "fix" them.

Though tragedyists and anti-tragedyists alike acknowledge the commons are in crisis, they collectively observe the problem through a particular lens in which they see local institutional breakdown, communal disintegration, social apathy, but not social action and conflict. This perspective ignores the fact that over the past few "development" decades, marginalized populations in the South have been organizing anti-development and anti-state movements and insurrections. In India, every corner of the postcolonial map finds a radical movement seeking to reclaim power over land and resources. In Mexico, the Zapatistas are mobilizing communities who have unsuccessfully competed for resources with large landholders and industries, and have gained numerical strength precisely at the moment when the *ejidos*, Mexico's common lands, were robbed of their legislative protection from real estate markets.⁹⁴ Similar processes are occurring in Brazil, the Philippines, Indonesia, and most nations where international development institutions

(professional and financial) have thrived. Moreover, the same could be said of urban, feminist, labor, race/ethnic, and environmentalist movements in the North.⁹⁵ These struggles are, in part, being fought over the commons, and are challenging the legitimacy of elite discursive practices of capitalist development and expansion.

Secondly, as expansion is constrained by the degradation of healthy production conditions worldwide, scholars and professionals alike have taken to search for the universal “logic” of the commons. In contrast, though, to the prevailing epistemic discourse, some critical theorists maintain that the subject of these heated debates, *scarcity* of healthy environments, can be largely attributed to two historically specific tendencies: capitalist *overproduction* (e.g., loggers unselectively clearfelling to keep costs down and “survive” global competition) and *underproduction* (e.g., refusing to do “costly” reforestation of denuded sites).⁹⁶ In times of extreme scarcity, the state -- and social movements -- inevitably intervene. Hence, processes of ecological degradation and repair become politicized, i.e., thrust back into the public domain. From this perspective, questions of scarcity cannot be answered by transhistorical equations or metaphors, as utility and value can be measured from many conflictual positions. To timber, mining, and ranching enterprises, perhaps only two percent of a tropical forest offers marketable commodities, and the rest, marked for destruction, is post-production waste.⁹⁷ To some forest producers, the trampled 98 percent may represent use values; this is why tropical forests such as the Amazon can be seen as at once “overexploited and underutilized.”⁹⁸ Many commons analysts, by contrast, understand scarcity as the inevitable sign for the demise of the peasant mode of production -- the pre-progressive and pre-scientific stage of social and economic development. In other words, scarcity becomes a discursive trope to invoke the well-worn tragedy parable and prescription, as well as mask contradictory interfaces between capitalist and noncapitalist processes. The post-scarcity world awaits us on the other side of economic/market rationality.

By viewing ecological limits as social limits, however, the causes and repercussions of environmental crisis become clearer:

Acid rain destroys forests and lakes and buildings and profits alike. Salinization of water tables, toxic wastes, soil erosion, etc. impair nature and profitability. The pesticide treadmill destroys profits as well as nature.⁹⁹

In this way, scarcity of the ecological commons is operationalized as an eco-Marxist and not neo-Malthusian (or Hardin-esque) concept. As production conditions become degraded, contaminated, and scarcer for the purpose of valorization, there is greater competition amongst capitalist sectors and communities for diminished access to healthy resources. This competitive terrain is expressed in ideology -- in masking or normalizing sources of destruction -- and materiality, in struggles over land, vegetation, fauna, minerals, and water. A survey of the commons literature reveals that activities *and* analyses of common property regimes are notably abstracted from such historical rhythms. Ironically, with perhaps the exception of the Human Ecologists, these experts overwhelmingly conclude that the global logic of the market -- or what Elmar Altvater calls “capitalist socialization”¹⁰⁰ -- is the instrument that will revitalize the threatened and enigmatic commons.

Conclusion: Hegemonic and successor sciences

Amongst scholars and professionals, the world's commons are invariably defined by a set of epistemological norms. Natural and human processes are expressed in terms of their valorized contribution to a nation's GNP.¹⁰¹ Though many culturalists and localists (e.g., Human Ecologists) express their concern for neglected cultural and ecological variables, these are also judged in terms of capitalist norms of economy, efficiency, and competition. Hence, they ask how commoners could produce more for less under different circumstances, such as with imported skills, capital, technologies, and management institutions. Meanwhile, globalists work to overcome the parochialism of focusing only on local conditions, but fail to acknowledge the complexity on which their preferred globalized social and natural world is based. All work within their situated knowledges to show that the actors they study are either rational or irrational, adjudicated by the discursive parameters of development.

Ultimately, not only are conflicts over property viewed purely in developmentalist terms, but so are their "remedies," i.e., intervention and valorization. These development strategies, however, are not merely economic interventions: they are political, cultural, social, ecological interventions with multiple effects on the way people organize their social worlds. Under existing power-knowledge relations, for commons scholars and practitioners to interpret the social reproduction of laborpower, ecological conditions, worldviews, and knowledge through rational modeling is tantamount to subverting meanings, silencing voices, and annihilating popular institutions. In the debates over whether or not the commons are in crisis, commons tragedyists and anti-tragedyists alike ignore the temporal and spatial dialectics of the lifeworlds they claim to know, and those they inhabit. Consequently, these intellectual sparring partners have developed, perhaps unwittingly, their own ideological "customs in common," and become, despite their avowed differences and disputes, the strangest of bedfellows.

This article is not so much a critique of the findings of studies on the commons, *per se*, as it is a critique of the instrument-effects that disembed their subject matter from dominant sites of power and knowledge. In this respect, the commons enterprise avoids what Bourdieu calls "epistemic reflexivity" or the process of grappling with the eminently political basis of scientific knowledge production.¹⁰² As long as the commons is perceived as only existing within a particular mode of knowing, called development, with its unacknowledged structures of dominance, this community will continue to serve the institution of development, whose *raison d'être* is restructuring Third World capacities and social-natural relations to accommodate transnational capital expansion.

By contrast, a successor science situates the commons within the contested hegemonic culture and political economy of expanding modernization and capitalism. It reflexively grapples with colonial and imperial practices, including historical relations between dominant and colonized social groups, and the multiple places where the scientist-inquirer stands in the context of the development world's conveyor belt of social experimentation

and scientific discursive practices. Finally, a successor science engages alternative science-for-the-people scientists/activists and helps translate situated knowledges across very diverse communities with explicitly acknowledged power-differentiated relations.¹⁰³ Pleading innocence -- as many detached scientists and don't-look-back development practitioners do -- does not keep the instrument-effects of their work from fueling undemocratic interventions into, and exploitative relations with, the social and ecological lifeworlds of the commoners.

In other words, to begin to understand the context and content of struggles over the commons one needs a critical and self-reflexive analysis of the institutional practices of development, modernity, and imperialism, and the way powerful agents (e.g., IFIs, developers, NGOs, and scholars) discursively reduce and rationalize human behavior to a common metaphor.

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¹ Garrett Hardin's parable imagines a set of pastoralists who destroy the future viability of their pastoral commons by each of them selfishly deciding to increase their herd size for individual short-term benefit, until the commons becomes overgrazed. "The Tragedy of the Commons," *Science* 162 (1968): 1243-48. Thanks to Peter Evans for editorial help here.

² As Feeny et.al. argue, Hardin's perspective "has become part of the conventional wisdom in environmental studies, resource science and policy, economics, ecology, and political science." One finds it as a foundational assumption in new institutional economics, game theory, and rational choice and action theories. Anthropologists such as Pauline Peters find it the basis of resource use policy in many parts of the Third World (for Peters, livestock and range policy in Africa). See David Feeny, Fikret Berkes, Bonnie McCay, and James Acheson, "The Tragedy of the Commons: Twenty-two Years Later," *Human Ecology* 18 (1990); Pauline Peters, "Is Rational Choice the Best Choice for Robert Bates? An Anthropologists' Reading of Bates," *World Development* 21 (1993); and Peters, *Dividing the Commons: Politics, Policy, and Culture in Botswana* (Charlottesville, University Press of Virginia, 1994).

³ "Institution" is defined as "both supraorganizational patterns of activity through which humans conduct their material life in time and space, and symbolic systems through which they categorize that activity and infuse it with meaning." From Roger Friedland and Robert Alford, "Bringing Society Back In: Symbols, Practices, and Institutional Contradictions," in Walter Powell and Paul DiMaggio, eds., *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991).

⁴ In 1991, the U.S.-based pharmaceutical company Merck paid the Costa Rican government \$1.1 million and a promise of future royalties in exchange for rights to collect biological specimens for commodity development from state forest commons.

⁵ Some authors locate the origin of "development" in the interwar period when "the ground was prepared for the institution of development as a strategy to remake the colonial world and restructure the relations

between colonies and metropoles." Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton: Princeton University Press, 1995), 26. The development "world" is comprised of organizations such as State departments, foreign aid and relations agencies, charities, missionaries, think tanks, international NGOs, and universities, that are heavily engaged in the institutional practices described in this article. The phrase "development industry" is used to emphasize the accumulative aspect of this world's practices. See Wolfgang Sachs, ed., *The Development Dictionary: A Guide to Knowledge as Power* (London: Zed Books, 1992). Others date the birth of development in 19th century European state practices, as a counterpoint to the devastation of "progress" – the social disorder of poverty, unemployment, and urbanization. See Michael Cowen and Robert Shenton, "The Invention of Development," in Jonathan Crush, ed., *Power of Development* (London: Routledge, 1995). Most critics understand the origins of the institution of development as Eurocentric.

⁶ Foucault conceived of the term "instrument-effects" to explain what gets served by the endless failures of prison systems, i.e., exercises of power through prisons. James Ferguson uses the idea to illustrate "failures" of development projects:

If it is true that "failure" is the norm for development projects in Lesotho, and that important political effects may be realized almost invisibly alongside with that "failure," then there may be some justification for beginning to speak of a kind of logic or intelligibility to what happens when the "development" apparatus is deployed – a logic that transcends the question of planners' intentions. In terms of this larger unspoken logic, "side-effects" may be better seen as "instrument-effects"; effects that are at one and the same time instruments of what "turns out" to be an exercise of power.

James Ferguson, *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho* (Minneapolis: University of Minnesota Press, 1994), 255, and Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage, 1979).

⁷ See James O'Connor's work on "production conditions" (ecological, human, and public) in the international journal *Capitalism, Nature, Socialism* (New York: Guilford Press).

⁸ Hardin (1968), 1244.

⁹ Hardin's model spawned a mini-industry of conservation biologists-turned-social philosophers, using their expertise in ants and bees and applying their laws to human societies, cultures, and the future of the planet. Classics in this genre include Paul and Anne Ehrlich, *The Population Explosion* (New York: Simon & Schuster, 1990); their *Healing the Planet: Strategies for Resolving the Environmental Crisis* (Menlo Park: Addison-Wesley Publishing Co., 1991); and E.O. Wilson, *On Human Nature* (Cambridge, MA: Harvard University Press, 1978).

¹⁰ Garrett Hardin and J. Baden, eds., *Managing the Commons* (San Francisco: W.H. Freeman, 1977); Paul and Anne Ehrlich, *The Population Bomb* (New York: Ballantine, 1968).

¹¹ The politically progressive camp – Rachel Carson, Barry Commoner, et.al. – attributed the North's environmental problems to changes in post-WWII industrial production, which dramatically increased chemical and fossil fuel consumption. They implicated large polluting corporations and laissez-faire governments in poisoning rivers, air, water supplies, soils, ecosystems, and worker's health. They argued for bans of the most pernicious toxic inputs and outputs, and strong regulation of the most polluting enterprises.

¹² One of the implications of Hardin's argument can be understood by the following subhead in his tragedy article: "Freedom to Breed is Intolerable." Here he replaces the common pastoralist with the common human breeder, planting the seeds for inquiries into the actions of individuals, such as sexual intimacy, asking whether they improve or destroy the "global commons."

¹³ O. Rockham, *The History of the Countryside* (London: J.M. Dent, 1986), 297, as cited in Peters (1994), 8.

¹⁴ Jeremy Bentham, as quoted in Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1944), 180. Polanyi's is perhaps the most brilliant analysis of these issues. He understood the enclosures of the commons – starting in the fourteenth century in England and France and eventually practiced in colonized territories abroad – as a critical process in the subordination of social institutions to the market economy, and rooted in the ideological contradictions of the "liberal creed" (e.g., Bentham, Malthus).

¹⁵ For an historically rooted critique, see E.P. Thompson, *Whigs and Hunters: the Origins of the Black Act* (London: Allen Lane, 1975) and *Customs in Common: Studies in Traditional Popular Culture* (New York: The New Press, 1993) – the title that inspired this article's.

¹⁶ Some theorists trace this liberalist tradition from Bentham to Gary Becker, and through development institutions such as the World Bank, to which I would add Hardin and the commons authors. See Fredric Jameson, "Postmodernism and the Market," in his *Postmodernism or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991) and Michel Foucault, "Governmentality," in Graham Burchell, et.al., eds., *The Foucault Effect: Studies in Governmentality* (Chicago: University of Chicago Press, 1991).

¹⁷ The literature includes *The Ecologist*, special issue, "Whose Common Future?" 22:4 (July 1992); S.V. Ciriacy-Wantrap and Richard Bishop, "'Common Property' as a Concept in Natural Resources Policy," *Natural Resources Journal* 15 (October 1975); Fikret Berkes, ed., *Common Property Resources: Ecology and Community-Based Sustainable Development* (London: Belhaven Press, 1989); Robert Wade, *Village Republics* (Cambridge: Cambridge University Press, 1987); and Elinor Ostrom, *Governing the Commons* (Cambridge: Cambridge University Press, 1990). An extensive bibliography of case studies is being catalogued at Indiana University, published thus far in Fenton Martin, *Common-pool Resources and Collective Action: A Bibliography* volumes 1 and 2 (Bloomington: Indiana University, Workshop in Political Theory and Policy Analysis, 1989/1992).

¹⁸ A critique of the tragedy school runs throughout this discussion; but for a more straightforward analysis, see my article, "Tragedy of the Commons of the Commoners' Tragedy: the State and Ecological Crisis in India," *Capitalism, Nature, Socialism* 4:4 (December 1993).

¹⁹ Influential authors include James Acheson, Bonnie McCay, Fikret Berkes, Evelyn Pinkerton, E.N. Anderson, Elinor Ostrom, C. Ford Runge, Margaret McKean.

²⁰ James Acheson on Maine, Dan Bauer on Ethiopia, and Robert Netting on Switzerland, in McCay and Acheson, *The Question of the Commons: The Culture and Ecology of Communal Resources* (Tucson: University of Arizona Press, 1987). The collection is considered a classic in the field.

²¹ McCay and Acheson (1987), 22.

²² See 1994 World Bank reports produced by its Environment Department, *Making Development Sustainable: The World Bank Group and the Environment and Economywide Policies and the Environment: Emerging Lessons from Experience*. Information also comes from the author's interviews with World Bank staff, mostly during 1995-96. Though this strategy is presented as new, privatization has been a critical wedge used by the Bank since the 1950s to open up the commons to external markets (e.g., capital, commodity, labor, scientific).

²³ Patricia Vondel, "The Common Swamplands of Southeastern Borneo: Multiple Use, Management, and Conflict," in McCay and Acheson (1987).

²⁴ See works by Anil Gupta, Rita Brare, Arun Agrawal, N.S. Jodha, and the author on India's desert commons.

²⁵ "Rights have no meaning without correlated duties, and the management problem with open-access resources is that there are no duties on aspiring users to refrain from use." Daniel Bromley, et.al. (1992), 4.

²⁶ See Jack Kloppenburg, Jr., *First the Seed: The Political Economy of Plant Biotechnology, 1492-2000* (Cambridge: Cambridge University Press, 1988).

²⁷ See Kenneth Neill Cameron, *Atmospheric Destruction and Human Survival* (Santa Cruz: Center for Political Ecology, 1992).

²⁸ Thanks to Harriet Friedmann for editorial advice.

²⁹ "Difference is now encountered in the adjoining neighborhood, the familiar turns up at the ends of the earth.... The world is increasingly connected, though not unified, economically and culturally. Local particularism offers no escape from these involvements. Indeed, modern ethnographic histories are perhaps condemned to oscillate between two metanarratives: one of homogenization, the other of emergence; one of loss, the other of invention.... Everywhere in the world distinctions are being destroyed and created." James Clifford, *The Predicament of Culture* (Cambridge: Harvard University, 1988).

³⁰ See the academic journal *World Development* for authors who participate in defining the Bank as central, and the journal *Alternatives* for authors who deconstruct this central role.

³¹ For critical discussions on the Bank, its auto-critiques, power, and problems, see the newsletters *BankCheck* (International Rivers Network, Berkeley, CA) and *Left Business Observer* (Doug Henwood, New York), as well as Hilary French, "Rebuilding the World Bank," *State of the World, 1994* (New York: Norton, 1994); Susan George and Fabrizio Sabelli, *Faith & Credit: The World Bank's Secular Empire* (Boulder: Westview, 1994); Paul Mosley, et.al., *Aid and Power: The World Bank and Policy-Based Lending* (London: Routledge, 1991); Kevin Danaher, ed., *Fifty Years is Enough: The Case Against the World Bank and the IMF* (Boston: South View Press, 1994).

³² Michael Cernea's publications, written primarily at the World Bank, include the edited volume *Putting People First: Sociological Variables in Development* (New York: Oxford University Press, 1985), and dozens of World Bank Reports, Discussion Papers, and articles in professional journals. Daniel Bromley's publications include the edited volume *Making the Commons Work* (San Francisco: ICS, 1992) and reports and papers written as a Bank consultant. He is also a co-founder of the International Association for the Study of Common Property and editor of *Land Economics*.

³³ For example, N.S. Jodha, "Common Property Resources: A Missing Dimension of Development Strategies," World Bank Discussion Papers #169 (1992), the works of Robert Chambers at the Institute of Development Studies (Sussex), Robert Wade, David Reed at World Wildlife Fund, Robert Repetto at World Resources Institute, the editors and writers at *World Development*, and numerous World Bank-financed publications.

³⁴ Many authors, such as Bromley, wear two hats -- in his case, within the academy as a property and economic institutions scholar, and as consultant with the World Bank, where consultants are obliged to skip the theorizing and offer ready-to-eat pragmatic and programmatic advice. The Bank has been described by many inside and outside as anti-intellectual and it has little tolerance for drawn-out anthropological findings or abstract social theory. Hence, it is quite easy to distinguish between the more scholarly Human Ecologist and the pragmatic Development Expert in their publications.

³⁵ Daniel Bromley and Michael Cernea, "The Management of Common Property Natural Resources: Some Operational Fallacies," World Bank Discussion Papers series #57 (October 1989).

³⁶ This is an assumption shared with the Human Ecologists.

³⁷ Bromley and Cernea (1989), 59.

³⁸ Bromley and Cernea (1989), 59.

³⁹ Bromley and Cernea (1989), 27.

⁴⁰ Indeed, their concerns are shared by Bank project evaluators, as the following passage indicates: "By all accounts little was definitely known at the time of appraisal about the [population's] way of life, grazing rights, motivation, etc. Only the scantiest literature exists on these matters and not even that was examined either at project preparation or appraisal, since neither team had included a social anthropologist." (Somalia: Trans-Juba Livestock Project, PPAR, World Bank, 1983, 10), cited in Bromley and Cernea (1989).

⁴¹ Bromley and Cernea (1989), 28.

⁴² Just as their title suggests, they found "operational fallacies" as well as ill-conceived assumptions on which Bank staff and consultants based their project design, implementation, and evaluation. Cernea has since written an internal evaluation of Bank resettlement operations ("Resettlement and Development: The Bank-Wide Review of Projects Involving Involuntary Resettlement, 1986-1993" April 8, 1994), and there, too, he found system-wide institutional dishonesty in regards to displacement and resettlement of populations negatively affected by World Bank loan projects.

⁴³ Bromley and Cernea (1989), 58.

⁴⁴ An extensive literature exists on the deterioration of sub-Saharan Africa's social and economic institutions due in part to Bank and IMF structural adjustment policies, starting with Bade Onimode, ed., *The IMF, the World Bank, and the African Debt* (London: Zed Press, 1989), and literature cited in endnotes 49 and 55.

⁴⁵ Critics of this literature, however, have examined the Bank's culture; see, for example, George and Sabelli (1994).

⁴⁶ A vibrant literature on this question exists, though it is hardly discussed amongst the commons scholars. See James Clifford and George Marcus, eds., *Writing Culture: The Poetics and Politics of Ethnography* (Berkeley: University of California, 1986); Clifford (1988); Donna Haraway, *Primate Visions* (New York: Routledge, 1989); and Haraway (1991).

⁴⁷ Though lacking self-reflexivity, this industry is remarkable for its self-referential tendencies. Most Bank reports, for example, reference almost solely works by Bank staff and consultants – a compelling discursive practice. See, Escobar (1995), 112 and Dorothy Smith, *The Everyday World as Problematic: A Feminist Sociology* (Boston: Northeastern University Press, 1987).

⁴⁸ Majid Rahnema, "Global Poverty: A Pauperizing Myth," *Interculture* 24 (2): 4-51. See also Ashis Nandy, "Shamans, Savages, and the Wilderness: On the Audibility of Dissent and the Future of Civilizations," *Alternatives* 14:3 (1989); Marc Dubois, "The Governance of the Third World: A Foucauldian Perspective of Power Relations in Development," *Alternatives* 16:1 (1991); Frederique Apffel Marglin and Stephen Marglin, eds., *Dominating Knowledge: Development, Culture, and Resistance* (Oxford: Clarendon Press, 1990).

⁴⁹ The long list starts with a seminal piece by Sara Berry, "The Food Crisis and Agrarian Change: A review essay," *African Studies Review* 27:2 (June 1984); also Henry Bernstein, "Agricultural 'Modernisation' and the Era of Structural Adjustment: Observations on Sub-Saharan Africa," *Journal of Peasant Studies* 18:1 (October 1990); and extensive debates on the science, methodologies, data collection, and statistics of development institutions making claims about Africa, authored by Ardeshir Sepehri, Eboe Hutchful, Lucy Walker, Giles Mohan, Ankie Hoogvelt, and others in *Review of African Political Economy*, especially volume 62 (1994).

⁵⁰ For example, *Accelerated Development in Sub-Saharan Africa* (Washington, D.C.: World Bank, 1981) and *Adjustment in Africa: Reforms, Results, and the Road Ahead* (New York: Oxford University Press for the World Bank, 1994).

⁵¹ Berry (1984), 65.

⁵² Berry (1984).

⁵³ Berry (1984), 62, summarizes the reasons why scholars' data are problematic: "One is the extraordinary diversity of local ecologies, farming systems, and socioeconomic conditions in Africa. Much of the available information is descriptive, and even quantitative local evidence defies ready aggregation or comparison across ecological or cultural boundaries. Second, standard paradigms of economic development (or underdevelopment) often conceptualize linkages between patterns of resource mobilization and use at the micro level and national or regional processes in ways which do not account for African realities."

⁵⁴ What the UN, humanitarian agencies, USAID, and others call the "African crisis" is, according to Bernstein (1990), actually a crisis of capitalism, especially for transnational investors in Africa.

⁵⁵ For studies on the effects of structural adjustment in Africa, see Michael Barratt Brown and Pauline Tiffen, *Short Changed: Africa and World Trade* (London: Pluto Press, 1992); Bonnie K. Campbell and John Loxley, eds., *Structural Adjustment in Africa* (London: MacMillan, 1989); and David Woodward, *Debt, Adjustment and Poverty in Developing Countries Volume I, II* (London: Save the Children, 1992), and Michael Watts, "Development II: the privatization of everything?," *Progress in Human Geography* 18:3 (1994).

⁵⁶ For a humorous and thoughtful critique of the Worldwatch Institute, see Timothy Luke, "Worldwatching at the Limits of Growth," *Capitalism, Nature, Socialism* 5:2 (June 1994). With appreciation, this section borrows the main word play and some ideas from Luke's article. See also Ulrich Beck, "From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment," *Theory, Culture & Society* 9:1 (1992).

⁵⁷ Data are culled from our only "global" sources: UN and World Bank publications, and Worldwatch's *State of the World 1994* (New York: Norton, 1994), and 1993, 1992, 1991 editions.

⁵⁸ From Peter Weber, "Safeguarding Oceans" (1994), a Worldwatch publication. Most international waters organizations are affiliated with UNEP.

⁵⁹ For a critique of the scientific logic of these experts, see Les Levidow, "Impact Assessment: Whose Rationality?," *Capitalism, Nature, Socialism* 3:1 (March 1992).

⁶⁰ Luke (1994).

⁶¹ James MacNeill, "Strategies for Sustainable Economic Development," in *Scientific American, Managing Planet Earth* (New York: Freeman, 1990), 110, cited in Raymond Rogers, *Nature and the Crisis of Modernity* (Montreal: Black Rose Books, 1994), 142.

⁶² While carbon monoxide production from autos can be reduced through improved technology (15 years ago a U.S. car produced about one pound of carbon in the form of carbon monoxide for every gallon of gas burned; today, it's closer to one-half a pound), carbon dioxide — invisible and odorless — is an inevitable byproduct of fossil fuel consumption. Though scrubbers and catalytic converters can reduce smelly and irritating smog by reducing carbon monoxide, no technology can prevent the release of carbon dioxide from fossil fuel consumption. Hence, the problem is structural not technical. See Bill McKibben, "Not So Fast," *The New York Times*, 25 (NYT Magazine, July 23, 1995), and Cameron (1992), 4.

⁶³ According to The Intergovernmental Panel on Climate Change, a UN-assembled group of scientists, as cited in McKibben (1995).

⁶⁴ The latest attempt to negotiate a process for setting national limits on carbon dioxide emissions has failed (Berlin Conference on Climate Change, March 1994). While small island nations (in danger of permanent submergence) and international green activists are pleading for emission limits, the highly industrialized as well as the oil-producing nations are resisting an agreement. An association of all major U.S. manufacturers, appropriately named the Global Climate Coalition, lobbied the Clinton Administration to withhold agreements to global emission controls, arguing that such proposals could result in "significant harm to the U.S. economy and U.S. competitiveness." According to the coalition's director, in words that a commons scholar would never express, "What are presented as environmental issues are really economic and trade issues...." *The New York Times*, "U.S. Industries Oppose Emission Proposals" (August 22, 1995).

⁶⁵ One simple way of ascertaining the answer is by perusing investment portfolios and project appraisal reports to see if carbon-emitting infrastructural projects are being canceled. Despite the grassroots ruckus for public transit in Thailand, Brazil, and elsewhere, massive highway projects have not been replaced with railways, and auto factories have not been scaled back or returned to their Northern manufacturers. On the contrary, transport and energy sectors of the IFIs are experiencing a tremendous growth spurt.

⁶⁶ Lester Brown, *Building a Sustainable Society* (New York: Norton, 1981), 317-326, as cited in Luke (1994), 57.

⁶⁷ World Resources Institute, in collaboration with the United Nations Environment Programme and the United Nations Development Programme, *World Resources: A Guide to the Global Environment, 1990-1991* (New York: Oxford University Press, 1990), 141.

⁶⁸ WRI (1990), 145-6.

⁶⁹ According to a 1996 UNDP lobbying booklet for U.S. Congress, the U.S. receives about \$1.50 in sales and services for every dollar contributed to UNDP. The returns are better at the World Bank: Though the U.S. has only invested \$1.9 billion in the World Bank (excluding IDA transactions) over the past fifty years, U.S. corporations received approximately \$5 billion in contracts from World Bank loans in the past two years alone. In general, 40 to 60 percent of the Bank's lending capital passes through the hands of Southern governments and into the coffers of Northern corporations, making development lending practices critical for Northern corporations' expansionary needs. One senior Bank official estimates that \$10 billion of Bank loans translates into \$250 billion in Northern investments in the South (staff interviews, 1995). Other data come from Eugene Rotberg (former Bank treasurer), "The Financial Operations of the World Bank," *Bretton Woods: Looking to the Future* (Washington, D.C.: Bretton Woods Commission, 1994) and the U.S. Treasury Department, "The Multilateral Development Banks: Increasing U.S. Exports and Creating U.S. Jobs" (May 1995).

⁷⁰ In the lengthy discussions on the pros and cons of adding more highways — and car, steel, rubber, plastic, oil production — to the South, development planners and resource managers neglect the fact that most community protests against these huge transport-sector projects have not been because rural communities are intrinsically "anti-progressive" but because these highways are built on the geophysical and material backs of the local commons. Forests, pastures, fields, watersheds, hillsides, natural drains are routinely paved for the purpose of national transport efficiency. Religious sites, burial grounds,

community practices, and open space are covered with urban trademarks. Whether in Los Angeles or rural Thailand, large road projects typically sacrifice subalterns' land, space, culture, and community. Hence, an analysis of IFI-financed highway construction reveals multiple connections between the degradation of deterritorialized "global" commons such as the ozone and the degradation of "local" commons, such as the material and cultural space taken from local communities for speedier commodity circulation. Depending upon one's analytic framework, a study of recent development of the South's transport sector can offer substantial opportunities for explaining the tragedy of the common(er)s.

⁷¹ Although the commons has virtually disappeared from the global discourse, it remains relevant in an abstract form, as a model of cooperation. One intellectual community hypothesizes that global organizations attempting to manage global commons resources do, or should, run on similar institutional principles as local commons institutions (e.g., village networks). See "Local Commons and Global Interdependence: Heterogeneity and Cooperation in Two Domains," edited by Robert Keohane and Elinor Ostrom, in *Journal of Theoretical Politics* 6:4 (October 1994).

⁷² Trygve Haavelmo and Stein Hansen, in Robert Goodland, et.al., eds., *Environmentally Sustainable Economic Development: Building on Brundtland* (Paris: UNESCO, 1991).

⁷³ At the 1994 American Sociological Association meetings, a scholar argued that the emergence of GATT-WTO represents a new site and opportunity for global citizenship (i.e., where everyone can sit and discuss trade issues). Yet when questioned, he was unable to say where or when these global town-hall meetings took place, or how one could get past the "citizen"-financed security guards.

⁷⁴ Foucault (1979).

⁷⁵ Paul Streeten, "Global Prospects in an Interdependent World," special issue, "Global Commons: Site of Peril, Source of Hope," *World Development* 19:1(January 1991).

⁷⁶ Neva Goodwin, "Introduction," *World Development* (1991), 2.

⁷⁷ Besides the aforementioned literature, see also Peter Haas, ed., *Institutions for the Earth* (Cambridge: MIT Press, 1994), and the slew of "new" institutionalist studies from sociology, political science, and economics.

⁷⁸ See Robert Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton: Princeton University Press, 1984). This school defines the term "hegemony" narrowly and contrary to the Gramscian usage. They simply find that since the cold war is over, since the U.S. is no longer the military and economic hegemon, and since none else exists, the moment lends itself to global cooperative tendencies.

⁷⁹ Aspects of this complexity are discussed in Richard Barnet and John Cavanagh, *Global Dreams: Imperial Corporations and the New World Order* (New York: Simon & Schuster, 1994); Chakravarthi Raghavan, *Recolonization: GATT, the Uruguay Round and the Third World* (Penang: Third World Network, 1991); Martin Carnoy and Manuel Castells, et.al., *The Global Economy in the Information Age: Reflections on our Changing World* (University Park: Pennsylvania State University Press, 1993).

⁸⁰ WRI is financially supported by UNEP and UNDP, as well as other sources, and its higher-level staff fluidly travel from one development agency to another (e.g., the World Bank, U.S. state department, environmental NGOs). WRI co-publishes reports based on work from these agencies and has become the world's premier NGO source for data on national resource consumption, publishing reports called *Global Trends in Environment and Development* and *World Resources, A Guide to the Global Environment* (published bi-annually).

⁸¹ Allen Hammond, ed., *World Resources 1990-1991* (Washington, D.C.: WRI, 1991) and Allen Hammond, "Accountability in the Greenhouse," *Nature* 347 (25 October 1990) versus Anil Agarwal and Sunita Narain, *Global Warming in an Unequal World* (New Delhi: CSE, 1991).

⁸² Cameron (1992).

⁸³ Escobar (1995), 159.

⁸⁴ Escobar (1995), 143, in reference to Aihwa Ong, *Spirits of Resistance and Capitalist Discipline* (Albany: SUNY Press, 1987), emphasis added.

⁸⁵ The opening line from the *1992 World Development Report* (Washington, D.C.: World Bank, 1992), the momentous statement on the World Bank's changing stance on the environment and development, cited and eloquently critiqued in George and Sabelli, (1994), chapter XI (emphasis added).

⁸⁶ Numerous Bank self-studies in recent years include The Wapenhans Report, The Morse Commission Report, India Agriculture Operations Division Report, Irrigation Sector Review, and the Arun III Dam (Nepal) decision from the Bank's Inspection Panel.

⁸⁷ Ferguson studied development agencies' work in Lesotho and found the following: "The 'instrument-effect,' then, is two-fold: alongside the institutional effect of expanding [non-local] bureaucratic state power is the conceptual or ideological effect of depoliticizing both poverty and the state." Ferguson (1990), 256.

⁸⁸ This is the thesis of the author's dissertation, which analyzes the IFI-financed Indira Gandhi Canal project, one of the world's largest irrigation projects, in India's desert. *'There's a Snake on Our Chests': State and Development Crisis in India's Desert*, Sociology, University of California-Santa Cruz, 1994.

⁸⁹ Escobar researched development's nutrition and hunger projects in Colombia. Though these projects had practically no effect on reducing hunger or malnourishment, he argues, the instrument-effects of these interventions profoundly transformed the conditions under which people live, in particular their integration into external market relations and into the new terrain of class-dominated power relations this integration entails. Escobar (1995), 109.

⁹⁰ See Escobar's discussion (1995) on new fields of knowledge, and the process of "professionalism" ("a set of techniques and disciplinary practices through which knowledges are organized and disseminated") resulting from development practices. For an excellent overview, see Michael Watts, "A New Deal in Emotions": Theory and Practice and the Crisis of Development," in Crush (1995).

⁹¹ Claudia Carr finds these instrument-effects in the work of UN organizations that "play a critical technical and political role in the overall scheme of global fisheries modernization," which with its primary emphasis on intensive production, industrialization and export of marine resources from Southern fisheries, is undermining artisanal fisheries and local economies. This commons-development drive, Carr finds, "is likely to exacerbate rather than solve problems of poverty, malnutrition, and debt in the South." Moreover, the global agencies' project to modernize Southern fishing industries is leading to rapid depletion of the ocean's fish populations and deterioration of marine and onshore habitats. Claudia Carr, "The Legacy and Challenge of International Aid in Marine Resource Development," in John Van Dyke, et.al., eds., *Freedom for the Seas in the 21st Century: Ocean Governance and Environmental Harmony* (Washington, D.C.: Island Press, 1993), 360 (emphasis added) and 347.

⁹² Most books on the "population problem" promote (sometimes inadvertently) coercion of the South's majority, especially females. By and large, books that do not focus on North-South, gender, race, and class power dimensions of human history typically find simple technological and elite-scientific "solutions" to the complex social reality that produces densely populated communities forced to compete over too-few resources. For an alternative view, see Frances Moore Lappe and Rachel Schurman, *Taking Population Seriously* (San Francisco: IFDP, 1988) and Betsy Hartmann, *Reproductive Rights and Wrongs: The Global Politics of Population Control and Contraceptive Choice* (New York: Harper&Row, 1987).

⁹³ See Martin O'Connor, ed., *Is Capitalism Sustainable?* (New York: Guilford Press, 1994).

⁹⁴ The Zapatistas also gained popular strength from anti-NAFTA sentiments, with movement leaders believing that NAFTA and world-market intrusions into Mexico denoted a "death sentence" for the poor. See Carlos Heredia and Mary Purcell, "The Polarization of Mexican Society: A Grassroots View of World Bank Economic Adjustment Policies," (Mexico: PUEBLO and Washington, DC: Development GAP, December 1994) and Michael Foley, "Privatizing the Countryside: The Mexican Peasant Movement and Neoliberal Reform," *Latin American Perspectives* 22:1 (Winter 1995).

⁹⁵ For example, inner-city kids in the United States have mobilized around the issue of vanishing 'public space', i.e., no place to hang out, play, rest, or even read. At a recent conference in Los Angeles, children demanded that public libraries stay open at night, arguing that it's the only place where they can feel safe (personal communication, Sandra Meucci, Wellness Foundation's Children and the Environment Project, 1995). Women's rallying cry of "Take Back the Night" is a commons-related demand for a safe public space (and time). Access to toxic-free neighborhoods, public transit, affordable housing, and health care, are examples of social movements organizing around, and reinventing, the commons.

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- ⁹⁶ James O'Connor, "Capitalism, Nature, Socialism: A Theoretical Introduction," *Capitalism, Nature, Socialism* 1:1 (1988) and Neil Smith, *Uneven Development* (Oxford: Basil Blackwell, 1984).
- ⁹⁷ Elmar Altvater, *The Future of the Market: An Essay on the Regulation of Money and Nature after the Collapse of 'Actually Existing Socialism'* (London: Verso, 1993), 226.
- ⁹⁸ Norman Myers, *The Gaia Atlas of Future Worlds* (London, 1990), as cited in Altvater, 227.
- ⁹⁹ O'Connor (1988), 25.
- ¹⁰⁰ Altvater (1993), 217.
- ¹⁰¹ "To detach man from the soil meant the dissolution of the body economic into its elements so that each element could fit into that part of the system where it was most useful." Karl Polanyi, *The Great Transformation* (Boston: Beacon Press, 1944), 179.
- ¹⁰² Pierre Bourdieu and Loic Wacquant, *An Invitation to Reflexive Sociology* (Chicago: University of Chicago Press, 1992).
- ¹⁰³ On successor science, see Sandra Harding, *The Science Question in Feminism* (Ithaca: Cornell University Press, 1986), Haraway (1989, 1991), and Richard Levins and Richard Lewontin, *The Dialectical Biologist* (Cambridge: Harvard University Press, 1985).

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