

International Relations and Global Environmental Change

Review of the Burgeoning Literature on the Environment

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ABSTRACT

The article reviews a burgeoning literature on the environment from two major groups of authors; on the one hand, International Relations scholars and, on the other, a host of 'green writers' comprising mainly biologists, environmental activists and philosophers. Both groups share a tendency to focus on the same four or five environmental problems introduced by a 'state of the environment reporting'. They perceive solutions mainly as top-down institutional arrangements above or between governments, and conclude with prescriptions for practitioners. Careful reading nevertheless reveals major contradictions between the theoretical assumptions of International Relations scholars and the empirical observations of green writers. While the former tend to place the nation-state at the centre of analysis, the latter group emphasizes the importance of a wide range of non-state actors who increasingly define local and transnational politics on the environment. Against this background, and with a brief introduction to recently arrived reflectivist approaches, a dialogue is suggested with the ambition of arriving at a study of global environmental change that consists not only of international, but also global politics on the environment. The article concludes with some suggestions for improvement.

Introduction

The literature on global environmental change (GEC)¹ has been on the increase throughout the 1990s, with contributions mainly from two groups of authors: one consisting of International Relations (IR) scholars the other a group composed mainly of biologists, environmental

activists and philosophers, referred to in the following as 'green writers'. The two groups have many similarities. They each tend to focus on the same environmental problems of climate change — thinning of the ozone layer, pollution of international waters, tropical deforestation — and thus put forward a fairly narrow definition of 'global' environmental problems. Furthermore, they tend to perceive solutions top-down, lying at the systemic level in intergovernmental arrangements, and thus most writers conclude their research with a package of prescriptions for practitioners in international organizations.

Careful analysis nevertheless reveals major differences in focus and data between the two. IR scholars persist in focusing their analysis primarily on intergovernmental negotiations and regime theory, and theoretical assumptions rather than empirical analysis fill the volumes. Beyond the closed community of IR scholars, green writers discuss a wide variety of perspectives and themes relating to the causes of global environmental disruption and come up with ideas for transition. Many of these studies report in rich detail on the activities of non-state actors, but assign little analysis or theorizing; empirical descriptions take up the majority of pages. An increasing number of texts authored by writers in developing countries is creating a lively debate on North–South contention and the population-environment-development nexus, some of it touching on global environmental ethics.

In this article I discuss and review the literature from both groups, and following a brief introduction concerning recently arrived critical approaches, I argue for dialogue rather than disciplinary enclosure. Merging the theoretical strength of critical IR scholars with the empirical bounty of green writers will bring the study of global environmental politics (GEP) up-to-date with contemporary matters, i.e. beyond the mere intergovernmental framework of neo-liberal approaches. The article proceeds in three sections: (1) a review of IR literature on the environment, (2) a review of green writings from scholars outside IR, and (3) a discussion of contrasts and challenges with respect to choice of perspective, focus and location of the writer, followed by suggestions for improvement.

IR Theory and Global Environmental Change

IR scholars did not begin writing about the environment until the late 1980s² when, following a general rise in public and governmental

environmental concern and the 1992 United Nations Conference on Environment and Development (UNCED), the subject became a sub-discipline on its own. Writers have tended to reach mainly for books on games theory and regimes, and consequently the study of global environmental politics has become the study of intergovernmental negotiations, institution-building and regime effectiveness. By and large, neo-liberal approaches have monopolized the research agenda,³ which has been conceptualized mainly as the management of interdependence in a system of sovereign states lacking the kind of central authorities assumed to be capable of providing order and regulation within domestic societies. The perception of global environmental politics has thus become that of 'global environmental negotiations (that) seek to achieve effective international cooperation' (Porter and Brown, 1991: 17), in which 'the international system lacks a central authority to foster environmental protection' (Sprinz, 1994: 77), and where international governance is about 'Protecting the Environment in a Stateless Society' (subtitle) (Young, 1994). The purpose of IR studies on the environment is that of promoting '... the importance of international cooperation in coming to terms with global environmental changes' (Young, 1993b). Environmental degradations are 'collective-action problems' and the solution lies in the creation of 'international institutions or regimes' (Young, 1990: 339). In simple terms, 'there is no escaping the need for sustained international cooperation as one component of the overall human response to global environmental changes' (Young, 1990: 344).

The general *modus operandi* of the subdiscipline has been largely shaped by Oran Young's extensive scholarship setting the trend for an 'institutionalist perspective' (1982: 15), a natural science ideal of methodology, where theoretical hypotheses are advanced, tested through rather cursory case studies, and concluded upon and followed with directions for policy-makers.

Cooperation in an Interdependent, Anarchic World

In the face of '... a range of environmental problems that are global in the strong sense that they affect everyone and can only be effectively managed on the basis of cooperation between all' (Hurrell and Kingsbury 1992: 2), scholars proceed to call for 'common action' or 'joint solutions' (Underdal, 1998). Typically, the overall situation is characterized as a 'gridlock of "complex" interdependence' in which it

is 'apparent that no single state can individually control the direction or alter the distributions of effluents, but neither is any one state insulated from the effluents of others' (Choucri, 1993: 26).

The problem definition consists of 'the absence of any central authority' and the 'inevitably remote prospect for extensive supranationalism and world government ...' that '... constitute the starting-point of [designing] the prospects for global environmental management' (Hurrell, 1992: 5-7). The problem is that 'the political and institutional framework within which they [environmental problems] must be addressed remains hopelessly fragmented' (Vogler, 1995: 2). Thus, Peter M. Haas, Robert O. Keohane and Marc A. Levy introduce their widely read volume by expressing their regret that 'world government is not around the corner', but that 'before becoming depressed by this prospect, we should note that interstate cooperation has achieved major successes' (Haas et al., 1993: 4).

Institution-building

Given ecological interdependence, sovereign states and the absence of central authority, the granted notion becomes: 'it is widely accepted that transboundary pollution problems require international cooperation for their solution' (Haas, 1990a: 47), '... world government seems far away. It is here that international regimes become important' (List and Rittberger, 1992: 85-86). Indeed, one of the very first volumes on *Environmental Protection. The International Dimension* (Kay, 1983) was concerned with choosing the right kind of international organization for varying types of environmental problems.

The objects of study are correspondingly formulated as that of 'law-making' (Richardson, 1992), that of 'the role of the United Nations' (Thacher, 1992), and that of 'negotiating more effective international agreements' (Susskind, 1992). In Gareth Porter and Janet Welsh Brown's popular *Global Environmental Politics* (1991), potential solutions are presented as a choice of three institutional alternatives: (1) 'the incremental change approach' (i.e. intergovernmental negotiations), (2) 'the global partnership approach' (North-South partnership through intergovernmental negotiations with specific concern given to the problems of the South), or (3) 'the global governance approach' (a 'truly supranational institution capable of overriding national sovereignty on matters of global environmental concern') (Porter and Brown, 1991: 153).

Likewise, Glen Plant's *Institutional and Legal Responses to Global Climate Change* leaves the IR scholar to decide 'whether the international community should seek to administer and co-ordinate its responses through existing structures, or establish one or a number of new international institutions' (Plant, 1990: 413). In the Haas, Keohane and Levy volume (1993), the subtext argues that, in the absence of world government, international institutions have three positive effects on the environment: (1) they can create high levels of governmental 'concern', (2) they can function as hospitable 'contractual' environments in which agreements can be made and kept, and (3) they can build sufficient political and administrative 'capacity' in national governments.

The State in Focus

Anarchy and interdependence, institution-building and intergovernmental cooperation — the state is the focus of analysis, around which the discipline evolves. Gareth Porter and Janet Welsh Brown put it this way: 'The role of state actors, however, is the most crucial to the outcomes. States enter into the bargaining that produces the international legal instruments creating global environmental regimes' (Porter, 1991: 35).

This celebration of states as the 'primary determinants of issue outcomes in global environmental politics' (Porter 1991: 68) is given little investigation. Nazli Choucri, for example, merely argues that 'states are sovereign' (as) '... the state is the only one that is accorded "sovereign" power domestically and is franchised to act independently and "legitimately" in the international and global systems' (1993: 11). Haas, Keohane and Levy (1993), despite finding that 'if there is one key variable accounting for policy change, it is the degree of domestic environmentalist pressure in major industrialized democracies, not the decision-making rules of the relevant international institution' (14), remain committed to studying the interactions between states. Non-state actors are taken into account only in so far as they might deliver 'pressure groups' input.

International Environmental Regimes

Numerous IR GEP texts build directly upon regime analysis.⁴ Oran Young, with his extensive authorship on environmental regimes, has

set *the* framework for the study of international politics on the environment. This implies a relatively narrow definition of regimes:

... constellations of agreed-upon principles, norms, rules and decision-making procedures that govern the interactions of actors in specific issue areas. As such, they provide the rules of the game that define the character of recognized social practices. (Young, 1993a: 145)

In his 1994 book on *International Governance. Protecting the Environment in a Stateless Society*, Young defines regimes as distinct from 'institutions', 'governance systems' and 'organizations'. A regime is a specific governance system 'intended to deal with a more limited set of issues or a single issue area' (1994: 26). Porter and Brown, noting that it is 'difficult to identify norms or rules in the global environmental area that are not defined by a specific agreement', follow with a narrow definition of regimes: '... a system of norms and rules that are specified by a multilateral *legal* instrument *among states* to regulate national actions on a given issue. The main form taken by multilateral legal instruments on global environmental problems is the convention' (emphasis added) (Porter and Brown, 1991: 20).

More 'radical' attempts to broaden the regime concept have been made. Martin List and Volker Rittberger attempt to push the study of environmental regimes beyond the narrow focus on treaties and conventions by emphasizing the behavioural components of a regime. 'Whereas a treaty is a legal instrument stipulating rights and obligations, a regime is a social institution wherein stable patterns of behaviour result from compliance with certain norms and rules, whether these are laid down in a legally binding instrument or not' (List and Rittberger, 1992: 89–90). John Vogler (1995) similarly defines regimes as 'more than international organisations or even formal legal arrangements between states'. Comprising 'the whole range of understandings, rules and procedures that exist in relation to common pool resources or sinks' (*ibid.*, pp. 18–19), 'they are institutions in the sociological sense of the word' (*op. cit.*, p. 22). This renders in turn a conclusion that because regimes by definition are 'issue area based', resulting in an 'incongruity between fragmented issue areas and institution and the real world of interlocked economic and ecological systems ... regimes ... may simply not be enough' (*op. cit.*, pp. 213–4). Owen Greene opts out of the regime definition scheme all together,

applying a broad understanding of regime as 'an international social institution with agreed-upon principles, norms, procedures and programmes that govern the activities and shape the expectations of actors in a specific issue area'. This, he declares, provides a 'good enough basis for getting on with studying actual regimes' (Greene, 1997: 198).

Despite attempts to loosen up the regime concept within the sub-discipline, the narrower definition has been dominant. As a result, the study of environmental regimes is primarily the study of already existing regimes in the form of conventions and treaties agreed upon by nation states. Young has studied the Conventions on Long-Range Transboundary Air Pollution, the Mediterranean, and the Convention for the regulation of Whaling (Young, 1990). Such regimes apply 'rights and rules', 'policy instruments', 'decision-making procedures' and 'compliance mechanisms' (Young, 1982). Regimes of resources (Young, 1982), ozone (Haas, 1993), polar bears (Fikkan et al., 1993), arctic haze (Soroos, 1993), climate change (Taplin, 1996) and the Mediterranean (Haas, 1990) are other frequently applied case studies of already existing conventions or treaties.

Random selection is often followed by inconclusive explanations. Young and Osherenko study a number of *Polar Regimes* (Young, 1993b) because of the 'geographical location' taking the opportunity to depict the region nicely on the front cover, but leaving the reader wondering if geographical location justifies conglomerate abstractions on environmental regimes in general. Haas, Keohane and Levy (1993: 8) provide a more detailed explanation for picking regimes that 'have sufficiently long histories to enable us to make some preliminary judgments about the effectiveness'. However, this carries with it a danger that not only do our studies become outdated,⁵ more importantly we study only what is already in place, that is, when nations cooperate, rather than when they choose not to cooperate. Regimes that failed, such as the international forest convention that is still not in place, or regimes that never existed, are neglected.

A focus on what is already in place might explain why case studies are centred largely around the cooperation of industrialized nations. This leaves out the study of institutional arrangements between industrialized and developing nations that, needless to say, might contain different characteristics. The 1996 volume edited by Oran Young, George J. Demko and Kilaparti Ramakrishna (1996) is one of the

very few attempts to incorporate more coherently the aspects of North–South relations into the study of environmental regimes.

Nothing would come of the many poorly explained choices of the same success-regimes if it were not for the tendency among scholars to generalize their findings into accounting for all kinds of regimes (North–South, North–North, East–West, and so on) on all kinds of issues (from polar bears to climate change) at all times. The Montreal Protocol in particular has assumed an almost ‘paradigmatic status equivalent to that once enjoyed in strategic studies circles by the Cuban Missile Crisis of 1962’ (Vogler, 1996). It has become the major point of referral for the idea that it is, ‘a useful model’ (Plant, 1990: 419), a ‘successful agreement’ (Young, 1989), reflecting the belief that the conditions for success in one protocol can be transferred to cooperation and negotiation on other topics of ‘global’ environmental concern.

From Regime Formation to Regime Effectiveness

Over the years, the agenda on environmental regimes has been expanded from the ‘why, when and how’ international regimes form and develop to one of how they matter, that is, the study of regime change and effectiveness. The question of regime change is frequently defined as one of evolution over time and whether and how ‘learning’ can take place in a regime. Effectiveness, a contested theme, is usually posed as the question of how regimes can shape or restructure international or domestic institutions and practices. The latter in particular has developed into a major field of study. Focus is primarily on behavioural aspects; on how regimes change behaviour and consequently affect the environmental degradation which the regime was put in force to solve: ‘An effective governance system is one that channels behavior in such a way as to eliminate or substantially to ameliorate the problem that led to its creation’ (Young, 1994: 3).

Owen Greene selects a more pragmatic and directly observable sign of effectiveness, namely the extent to which a regime promotes compliance and changes of behaviour in line with its norms and rules (Greene, 1997). Chayes and Chayes (1991) have a more complex, yet similar, understanding of regime effectiveness, namely that of the regime’s ability to adjust its norms and rules in response to the demands of continuous changes in the political, cultural, economic and technical setting, as well as its ability to ensure substantial compliance

with the norms and rules of the regime 'in the face of powerful centrifugal incentives for free-riding and defection'. In conclusion, the authors present a long shopping-list of the effective regime's appropriate level of application, accountability, transparency, generation of information, reporting and monitoring, target setting and surveillance, negotiation and conciliation (Chayes et al., 1991).

More recently, Young, George J. Demko and Kilaparti Ramakrishna (1996), have re-worked and detailed the measurement of effectiveness beyond simple behavioural change and institutional effectiveness as they identify six distinct dimensions of effectiveness, namely (1) problem solving, (2) goal attainment, (3) behavioural effectiveness, (4) process effectiveness, (5) constitutive effectiveness, (6) evaluative effectiveness (pp. 8–14).

Epistemic Communities

'Epistemic communities' as a term and as a theoretical school in IR would have languished were it not for the work of Peter Haas on the importance of epistemic communities in international environmental regimes. In the hands of Haas, Ruggie's Foucault-inspired concept of epistemic communities⁶ has taken on a different meaning from what was meant originally. To Ruggie, epistemic communities constitute a level of institutionalization in a state's collective response to collective situations occasioned by 'science and technology'. To Haas, epistemic communities have come to mean actual and discernible groups of 'technical advisors':

Epistemic communities are networks of knowledge-based communities with an authoritative claim to policy-relevant knowledge within their domain of expertise. Their members share knowledge about the causation of social or physical phenomena in an area for which they have a reputation for competence, and a common set of normative beliefs about what actions will benefit human welfare in such a domain. In particular, they are a group of professionals, often from a number of different disciplines. (Haas, 1995: 179)

The epistemic community's primary actors are 'bureaucrats, technocrats, scientists, and specialists' (Haas, 1990b: 55), groups of 'professionals' identified by the 'transnational trait of their networks' (Haas, 1990a). Working under 'conditions of uncertainty' these specialists play a significant role 'in attenuating such uncertainty for

decision makers' (Haas, 1990a: 350). There is a noticeably positive feeling to this characterization of epistemic communities. The epistemic community is praised for its support of policy-makers, as it makes available 'policy-relevant knowledge'; epistemic communities are 'goal seeking actors', 'less impeded by institutional rigidities and disciplinary blinders' (Haas, 1990a: 350) that are '... politically empowered through their claims to exercise authoritative knowledge and *motivated* by shared causal and principal beliefs' (my emphasis). In brief, epistemic communities are seen as providing competent and apolitical services to the political system and its policy-makers. As James H. Mittelman has pointed out, this approach is 'scientific', stressing as it does that the authority of experts rests on the clarification of cause-and-effect relationships, hypothesis testing and evidential tools (1997). Policy-makers, Haas argues, are likely to consult experts when they are confused about anomalous policy results or the technical aspects, causes or political consequences of such results. To mitigate uncertainty while defending their own autonomy, they commonly resort to scientists for information and policy advice (Haas, 1990b: 54). It is 'by conducting interviews and studying specialized publications of technical advisors (*before their entry into policy-making*) [that] we can ascertain if these common beliefs exist and thus if an epistemic community might be present' (Haas, 1990a: 350) (my emphasis).

Environmental Security

Finally, the interface between the realms of security and the environment has become the site of considerable controversy, mainly within a larger debate on the security concept. A realist-inspired argument is that the very referral to environmental change as a security threat may bestow the problematic with a greater sense of urgency, one that will elevate it to the realm of 'high politics' along with military priorities (Dalby, 1992). It has been suggested that security concerns should include environmental contamination and weapons development across borders as well as the environmental consequences of warfare. First and foremost, however, linking of environment and security has led to the proposition that environmental degradation and resource competition might contribute to the outbreak of war (e.g. Brown, 1989; Homer-Dixon, 1990, 1994; Rowlands, 1992), and that 'ecological scarcity' in the face of anarchy will lead to a 'war of all against all' (Ophuls, 1977: 219). Frances Cairncross (1994) has suggested that

local environmental problems such as soil erosion, water scarcity and competition for energy will have more severe effects on international security relations than current 'global' issues, as the latter are likely to be swamped by already existing local environmental changes in developing countries. Marvin Soroos (1994) explores environmental security in the context of the Prisoner's Dilemma game and asks whether states will address 'environmental threats' in the same way as they dealt with military threats, that is, by reverting to defensive self-help strategies rather than seeking cooperation.

The linking of environment to security has provoked two lines of criticism (Stern, 1995): One is that a relatively restrictive definition of security should be maintained in order to protect the conceptual and substantive integrity of security studies as a discipline; the other is that the normative and ontological implications of the security discourse are distasteful, that it is inappropriate to 'securitize' non-military social or environmental issues (Deudney, 1990; Finger, 1994). One proposal arising out of such controversies has been that 'what is required is not a redefinition of international or national security ... but a better understanding of the nature of certain threats to security' (Gleick, 1991). Monica Tennberg (1995) has put forward the argument that it is a mistake to focus so exclusively on the objects to which we should attach security concerns. Rather, we need to connect natural and social processes if we are to understand the nature of environmental problems in respect to security considerations.

Contrasting Green Writings⁷

Writings on GEC outside IR tend to be empirically based and relatively descriptive, with little in the way of profound analysis or theoretical discussion of the problems presented. Many contributions are mixtures of 'state of the environment' reporting and discussion of causes followed by proposals for an 'ideal' transition towards a better future for which texts, in overly moral tones, call for nation-states to get together. There is a tendency to present everything from scientific facts to negotiating processes, institutional settings and the international political context of the issue concerned, meaning that many contributions represent minor variations on the same theme, namely that the global environmental crisis is getting worse and that impediments to transition are growing.

The Nexus of Population–Environment–Development

The early green writings of the 1970s focused on the planet's limited resources. The doomsday picture, which, as presented in the environmental classic *Limits to Growth* (Meadows et al., 1972),⁸ warned that 'if the present growth trends in world population ... continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years' is typical of the mood of apocalypse that characterized much writing in those years. There was a preoccupation in the literature with identifying doomsday with specific factors and with seeking the causes. The idea that environmental degradation originates in an imbalance between the earth's limited resources and the rapid growth of the human population gathered widespread focus. In 1971, Paul Ehrlich introduced the equation $I = P \times A \times T$, in which I stands for environmental impact, P for people, A for affluence (or per capita consumption) and T for technology. The equation was a central part of Ehrlich's argument that population growth was the main cause of environmental degradation (Ehrlich and Holden, 1971) and echoed the much cited article by Garret Hardin, 'The Tragedy of the Commons', in which it is stated that the 'pollution problem is a consequence of population. Freedom to breed will bring ruin to all' (Hardin, 1968).⁹

'If the seventies was the decade of the recognition of earth's finiteness, the eighties was the decade of environmental degradation' (Jancar, 1991: 25). Attention shifted to the question of pollution as opposed to resources: it became evident that the really scarce resources were not materials and energy but the receiving capacities of the environment. Well into the 1990s, green writings have increasingly begun to trace the origin of humanly induced environmental impact in the complex nexus between population growth and the consumption of resources. Consequently, searches for environmental solutions now address consumption patterns and life-styles, not simply gross numbers of people (see, for example, Brown and Porter, 1991: 5; Davidson et al., 1992; Durning, 1992; Holmberg, 1992; Hurrell and Kingsbury, 1991: 2–3; Pearce, 1991; White, 1995). Paul and Anne Ehrlich, who in 1970 cited population growth as the major reason for pollution (p. 265), changed their focus in the 1990s to the 'overpopulated U.S. and its population that overconsumes' (1991). A common argument now is that the far higher level of consumption in the North means that the growth of population in this part of the world (5% of

world population growth) accounts for well over half the increase in global environmental impact that can be related to population growth (Ekins and Jacobs, 1995; Amalric, 1995; Weizsäcker, 1994: 24, 93). This perspective also originates in the work of Jim MacNeill, Pieter Winsemius and Taizo Yakushiji, who develop the concept of 'shadow ecologies' to capture the import-dependent production and consumption patterns of the North (MacNeill et al., 1991). Barry Commoner, ends up, for a change, with a technology argument in his paper to the UN 'Expert Group on Consequences of Rapid Population Growth', where modifying the $I = PAT$ equation and citing research on three sources of pollutants (cars, electricity and nitrates) in 65 developing countries and the US during 1964–86, he concludes that environmental quality is largely governed not by population growth, but by the nature of productive technology (1988).

A number of authors suggest that population be understood as part of a nexus of causation, not as an independent variable to be targeted in isolation (Flint, 1991). One example is Holmberg's analysis of worldwide deforestation, in which he indicates that population is only one factor among many contributing to deforestation (1992: 325). On the same issue, Mark Sagoff suggests that while local populations might nibble around the edges of rainforests, only enormous capital investments, which often arrive from the industrialized North, can create deforestation on a major scale (1994). Paul R. Shaw (1989) argues that population growth is a 'proximate' cause: it is ultimate causes such as poverty and macro-economic distortions, not the tip of the iceberg of population growth, that need to be addressed in solving the global environmental crisis. A more detailed research project can be found in the edited volume on *Population and Environment. Rethinking the Debate* (Arizpe et al., 1994), which seeks to introduce complex micro-level social, political and institutional factors into the debate. Finally, Julian Simon (1990) has contributed the pole of opposition in the population-environment debate by arguing that population growth actually drives innovation and technical change, that more people means 'more brains dreaming up more technical solutions to problems'.

While the population-environment debate has become more sophisticated, traces of the old witch-hunt still remain, as a new era of global environmental problems, such as the thinning of the ozone layer and climate change, has provoked a resurgence in the argument that it is the growing populations of the South that are at fault (see, for

example, Benedick, 1991). Escalating needs and demands in the South are considered to be nullifying the efforts of the North. A much quoted argument is the one by Norman Myers stating that the most 'practical way' to reduce global CO₂ and other greenhouse gas emissions is to slow the growth in human numbers (1991: 28). Similarly, Nathan Keyfitz claims that 'whatever problems the rich countries face, rapid population growth is not one of them' (1991), while Paul Harrison uses the $I = PAT$ equation to argue that population growth, though not attributable to developing countries alone, was 'a significant factor in the increase of global CO₂ emissions during 1960–85' (1992: 242). More radically, John D. Montgomery contends that global environmental problems require 'changes in mass behaviour, especially in pre-industrial countries' (1990).

North–South Perspectives on the International Agenda on the Environment

Recently, the international agenda on the environment has received more attention. A broad consensus prevails that the North presides over the global agenda and its definition, that Northern states and Northern NGOs (NNGOs) dominate affairs at the cost of Southern states and Southern NGOs (SNGOs). In this way, the North has successively focused international attention on the issues which affect it most, namely marine pollution, ozone depletion, global climate change, biodiversity and deforestation (Hurrell and Kingsbury, 1991: 37). On UNCED, a typical comment is that the North succeeded in inviting the South to help resolve its difficulties while marginalizing problems of poverty and development in the South (Middleton et al., 1993: 4–6).

Within this discussion there is wide consensus that the civil societies of the North (frequently captured as media, public opinion and NGOs) have played a significant role in getting environmental problems on to the international agenda (see, for example, Brenton, 1994; Brown and Porter, 1991; Caldwell, 1990; Hurrell and Kingsbury, 1991; Jamison, 1994; Weizsäcker, 1994). In general, it is argued, SNGOs have played a marginal role with respect to the global environmental agenda, not only because they are not as numerous as NNGOs, but also because in their work a majority of SNGOs are focusing on development, not the environment. They are, in the words of Robert Livernash, 'community-based and relatively small', their survival often

depending on the courage and persistence of a few individuals who must frequently contend with hostility from governments and, in a few cases, may be risking their lives (Livernash, 1992). In contrast to this picture of the bravery of SNGOs, Tariq Banuri characterizes them as possessing almost entirely reactive strategies, because they tend to believe in the Northern-promoted conception that the people of the North are more environmentally engaged than the people of the South (Banuri, 1994). Another suggestion is that NNGOs and SNGOs represent different classes of people. SNGOs, some suggest, are very often a response to threats to survival and thus involve the poor, whereas NNGOs are often based in the middle classes (Bandyopadhyaya and Shiva, 1989 cited in Thomas, 1992: 30; Hadsell et al., 1993). Tony Brenton (1994) argues that North–South differences stem from opposite perceptions of the problem of ‘future amenity’, which the North views from an environmental perspective, the South from one of development. This is confirmed by the Columbian anthropologist Alvaro Soto, who points out that ‘Air pollution, carbon dioxide emissions and the loss of biological diversity have little meaning to people who see their children die of malnutrition and who lack even the most basic health care’ (Soto, 1992: 680).

Southern Leverage

Yet another theme relevant to the North–South debate is the suggestion that the global environment is an important card of the South. With the industrialized North being more concerned about the global environment than the developing South, and with the North needing the South’s cooperation, the latter is left with a rare opportunity to extend bargaining beyond the environment to questions of development and the international economic order (Stone, 1993: 116). Wilfred Beckerman (1991) suggests that global climate change is ‘one of the very few issues on which the rich nations actually need the cooperation of major groups of the poor’, and James K. Sebenius (1991) speculates that ‘given current levels of distrust as well as the steep energy requirements of vital development, a threat by key developing nations not to co-operate with an emerging climate regime ... could have a clear rationale and a measure of credibility’. David Adamson (1990: 21) takes leverage optimism one step further by arguing that the North will have to ‘pay billions’ for the global environmental agreements they want, ‘otherwise developing countries will be unable to resist the

pressure to provide energy and growth to their swelling populations'. MacNeill et al. (1991: 63–73) have already concluded that the Montreal Protocol¹⁰ is 'a case in the general point that the South has a potential leverage in shared global commons'. Following the Montreal Protocol, Benedick (1991) and Lembke (1992) are similarly optimistic, while Sell (1996) concludes that we cannot expect the developing countries to be in a similar position in future international negotiations. Finally, Marc Williams (1993: 29) suggests that 'the Third World coalition is not a static entity' and that there is little indication the South's bargaining power has increased.

Voices from the South

Green writings emanate mainly from authors residing in the North. Recently, however, commentators from the South have begun articulating their positions. A comprehensive contribution is *Varieties of Environmentalism: Essays North and South* (Guha and Martinez-Alier, 1997), in which the authors seek to articulate the values and orientation of the environmentalism of the poor and to explore the conflicting priorities of the South and the North. Vandana Shiva, one of India's leading environmentalists, has been particularly active in vehemently arguing that the North has effectively marginalized environmental problems in the South to 'local' problems, while those of the North are seen as 'global' (Shiva, 1993: 68; 1994). Such complaints lead to claims that the industrialized North adjusts its consumption patterns and trading policies and pays its 'ecological debt' to developing countries (see, for example, Hassan, 1992). Addressing NGOs, Iqbal Asaria advances the proposition that, like their governments, NNGOs are unable or unwilling to address adjustment in the North (Asaria, 1992), while the Uruguayan Eduardo Gudynas argues that NNGOs have a distorted image of the South's environmental problems and that their priorities concerning current global environmental problems are without reason or proof. Why, Gudyna provocatively asks, are there no Latin American networks advising Canadians and Americans on how their forests should be dealt with? (1993).

Earth Ethics

Finally, writings have emerged from the sister field of environmental ethics and philosophy that in recent years has embraced discussions

relating to GEC. David E. Cooper and Joy A. Palmer differentiate between three categories of ethics concerning the environment: first, 'interspecies justice', which involves the question whether we should be concerning ourselves with the impact of our way of life upon animals and nature, which is also a discussion of our perceptions, treatment and management of nature; secondly, 'intergenerational justice', under which they place the question of our responsibilities to the generations which will follow our own; and thirdly, 'international justice', under which are grouped questions concerning the North's obligations to the South (Cooper and Palmer, 1995).

One of the more accessible contemporary reference points regarding the first category is Robert Elliot's anthology *Environmental Ethics* (1995), which includes some of the very best and most provocative papers in this area. Anthropocentric beliefs concerning the value of life are handled in Westphal and Westphal's (1994) collection of essays, many of which can be characterized as 'deep ecology'.¹¹ James P. Sterba's anthology *Earth Ethics* (1995) contains a wide variety of writings concerning deep ecology and land ethics as well as animal liberation, ecological feminism and Christian Ecology. The *Earth Summit Ethics* volume of Callicott and Rocha (1996) offers a similar number of perspectives, but the widest range of readings is presented in Louis P. Pojman's (1994) undergraduate anthology *Environmental Ethics*, which includes a wide variety of contributions from the hands of Aldo Leopold to Al Gore.

The debate on 'intergenerational justice' was sparked by the Brundtland Report (World Commission on Environment and Development, 1987) and its definition of 'sustainable development'. Herbert Bormann and Stephen R. Kellert ask the fundamental question in this debate: 'What is our responsibility to future generations of humans, to our own generation, and to other earth-bound organisms' (1991: ix). Generally, texts evolve around, first, the question of the rights of present versus future generations when making decisions concerning our use of the environment, and secondly, the definition of 'sustainable development' and its implications. As regards the first, Edith Brown Weiss (1989) has suggested that the planet is a 'global commons' endowed with elements of 'common patrimony' in space and time, and thus, she argues, we must develop an 'intertemporal dimension' of international law in order to relate the present to the future, as well as to the past. Questions on sustainable development have sparked a host of contributions, but I will not deal with these here.¹²

On 'international justice', a common argument is that global environmental problems cannot be solved without first addressing the fundamental problems of inequality within the current international economic and political system. Henry Shue (1991), for example, argues that international justice in an international agreement on climate change implies sharing the costs of abatement with the Haitis and Malis of the world, i.e. with those countries that are estimated to be worst affected by global climatic changes. Dale Jamieson (1992) promotes a far more provocative argument when suggesting that we simply have no way of dealing with the responsibility for global environmental problems other than of developing a deeper understanding of cultural value systems, of 'who we are'.

Finally, and truly in a league of its own, Ulrich Beck's (1995) *Ecological Politics in an Age of Risk* raises pathbreaking questions on modern politics and our age of 'organised industrial irresponsibility', 'the technocratic challenge to democracy' and the 'logic of relativistic science'. The 'invisible hand', Beck argues, has turned into an 'invisible saboteur'. The world has become a testing ground for risky technologies and thus also 'a potential refutation of the safety guarantees of state, economic and technical authority' (3). Unique political-ecology analysis is followed by suggestions for new departures for a transformation towards democratic accountability.

Less a Conclusion, More a Suggestion

Above I have characterized the IR-GEP subdiscipline as consisting largely in discussions and analysis of inter-governmental regimes and negotiations in which little attention is given to the diversity of non-state actors and their political roles. The state, despite being the centre of analysis, remains unexplored and confined to a 'black box'. Perhaps it is for this reason that North-South divergencies on GEC are rarely seen as anything but an offshoot of the political-economic rift between developing and industrialized countries. This neo-liberal, functionalist approach fails to take into account the distribution of interests and power among parties interacting in global environmental regimes and negotiations. The study of GEC is downgraded to the objective of maximizing total utility, in which the interests of all states are assumed to be 'mutual'.

In recent years critical scholars have entered this field. Though from a somewhat peripheral position, these writers reject neo-liberal approaches, claiming that its scholars, unfamiliar with the geographical, biological, socio-economic and political causal links of GEC, have tended to resort to the usual tool kit of intergovernmental agreements and regimes, spiced with debates about partially yielding up national sovereignty and arguments about collective action (Conca and Lipschutz, 1993). In other words, these critical scholars claim that their neo-liberal colleagues have come rather crudely to press the new topic of the environment into service within existing frameworks in order to support one or another normative position (Paterson, 1996). GEC is just another 'event' which is perceived as needing treatment and solutions within the existing paradigm (Vogler, 1996; Lipschutz, 1993); thus reducing politics to a mere 'technical discourse' and failing to question existing structures (Williams, 1996). The state-centred perspective is criticized for neglecting the 'parallel arrangement of political interaction', namely that of actors outside the state (Lipschutz, 1992). The result is that the environmental crisis is depoliticized (Paterson, 1995); becoming an agenda which is 'an unreflective and uncritical extension of the desire to control and integrate the international system, this time in the service of an ascendant ideology of global environmental management' (Dohran, 1995). The functionalism of this 'technocratic organizational mode' is a dangerous tendency to avoid facing the political purpose of IR research (Stoett, 1997: 11).

Critical scholars, although confined to a relatively marginal position in contemporary IR-GEP, are engulfed in their own critique of the neo-liberal monopoly. In the process, they have turned their study of GEP into 'meta-GEP', as the quantity of publications discussing and criticizing the characteristics or ideals of post-neo-liberal IR on GEP seems to exceed the quantity of such analysis itself. The empirical analysis that does occur (Kuehls, 1996; Lipschutz, 1996; Stoett, 1997; Wapner, 1996) is focused explicitly on non-state actors, such as environmental groups, setting aside the study of the nation state and thus leaving it in the neo-liberal black box. Indeed, critical scholars bring forward insightful points concerning the purpose of theory and the focus of the subdiscipline, and analysis of non-state actors, but overall they share with their neo-liberal colleagues two major fault-lines. One, a tendency to refrain from any thorough, investigative analysis of the 'real' world of politics out there, and, two, a disinterest

in analysing the state. In this way, critical scholars not only contribute to a simplified paradigm on the state as a rational unit with systemic interests, they are also risking strengthening a tendency for IR-GEP scholars to neglect empirical detail.

This is a shame, because outside the disciplinary enclosure of IR, a bounty of empirical observations indicate much need to push the standard boundaries of IR theory on the environment. Despite its flaws — the preoccupation with Malthusian scarcities, a persistent but futile hunt for a unitary cause of global environmental degradation, a tendency toward a noticeably ideological, crude and often emotionally driven style of argumentation which appears to be devoid of any theoretical basis or detailed empirical research — the green literature contains important information and reflections on the contemporary complexities of international relations in a time of GEC. In addition, it also contributes considerable empirical support to the theoretical critique raised by reflective scholars that IR-GEP has neglected non-state actors, social conflict and the political ecology of GEP. Merging the observations of green writers with the political perspectives of reflectivist scholars would develop the subdiscipline so that it would not simply consist in the study of the *inter-national* politics on the environment, but also *global*, i.e. the study of state and non-state actors on local, national, international and transnational levels. Pursuing this course, there are several ‘openings’.

Take, in the first place, the long debate on population and the environment. This fruitless search for a global whipping boy and its futile discussions of uncausal explanations for GEC is in dire need of a more comprehensive understanding of social, political and economic factors. For too long, biological pseudo-explanations have been obstructing discussion and neo-liberal scholars have been neglecting the social, political and economic causes of GEC.

Next, IR scholars should consider investigating, in much greater detail, the complexities of the North-South dispute surrounding GEC that green writers so thoroughly describe, but seldom analyse. Reflections on the global environmental agenda, the reporting of North–South issues of contention, and the voices from the South are particularly insightful and provide scholars with significant indications that nations simply do not enter inter-governmental negotiations on the environment with ‘mutual interests’ in search for ‘joint solutions’. The debate on Southern leverage, while playing into the hands of those who take a security perspective on GEC, further exposes the

'mainstream' desk-top assumptions of neo-liberal approaches that 'mutual' exogenously given interests are present.

An additional challenge arises from the invariable descriptions of the importance of environmental organizations and their transnational activities to, this time, the state-centred focus. The reporting of green writers on the agenda-setting role of non-state actors directs attention towards the need for exposing the less visible patterns of control and interest in GEP. The pages of the green literature reveal a burgeoning sphere of political activities parallel to that of the state, but in IR this remains a sphere which scholars have touched only on the fringes. Finally, the growing field of 'Earth ethics' reminds us that solutions to GEC are not simply created with effective and functional, institutional designs, but require that we address fundamental problems of inequality within the current international economic and political system.

In conclusion, critical IR scholars have initiated an important questioning of boundaries and assumptions in the IR-GEP subdiscipline. Meanwhile, green writings, often authored by environmental activists, present a range of experiences from the front line of the environmental battlefield which lend support and material to such questioning. It is somewhere in this interface that the subdiscipline of GEP could find a new point of departure for itself. Neo-liberal scholars need not close their books at this point. The world of GEP still demands analysis and insights into intergovernmental bargaining and organization. My plea, however, is that such analysis does not remain our main or only focus. There is a world of politics out there that demands our attention.

NOTES

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1. Most writers apply the heading 'global environmental change' as simply that of 'normal environmental problems writ large', giving the depletion of the ozone layer, climate changes and the decline in biological diversity as typical examples (Young, 1996: 6). More radical approaches define global environmental change as a social phenomenon resulting from specific human activities or institutionalized practices (Lipschutz, 1996: 22). The first under-

standing is applied in this article, simply because this is how most texts reviewed in this article use the term.

2. Early pioneers were Sprout and Sprout (1965), Young (1977), Boardman (1982), Young (1982), Kay (1983), Caldwell (1984). Other IR scholars, such as John Von Neumann (1955), the co-founder of game theory, and Wheeler (1946) had considered the political and social consequences of human intervention in nature (Vogler, 1996).
3. Scholars outside the neo-liberal approach are not altogether unfamiliar with environmental politics. Bull (1977) has commented that international will to deal coherently with 'global problems of pollution' is dismal given the Westphalian states system. Waltz (1979) has noted that international cooperation on the environment is 'unlikely to occur', as the collective goods nature of the environment inhibits any collective efforts for their management (in Haas, 1990b: 36–9).
4. This might simply be the result of two parallel developments: first, the introduction of an analytical focus within IR on regimes, which took off in the late 1970s and early 1980s (Kratochwil and Ruggie, 1986); and secondly, the 'arrival' of boundary-transcending environmental problems on the international political agenda in that same period.
5. In Young and Osherenko's (1993) *Polar Politics*, for example, the study of the Fur Seals regime focuses on the regime's formation earlier in this century, while the study of the Svalbard regime centres on events in 1870–1915; the Polar Bears regime study investigates the period 1938–90 (with an emphasis on the earlier years). The question, however, is whether such historical records on regime formation can tell us much about the general formation of environmental regimes in contemporary international politics, where actors, agendas and structures have changed in many ways?
6. In his periodic arguments on the socially constructed political situations, Ruggie introduced 'epistemic communities' as one of three levels of institutionalization: 'In depicting the "collective response" of states to collective situations occasioned by science and technology, I will differentiate among three levels of institutionalization: 1) the purely cognitive, which I will call "epistemic communities"; 2) that consisting of sets of mutual expectations, generally agreed-to rules, regulations and plans, in accordance with which organizational energies and financial commitments are allocated, and which we are calling "international regimes"; and (3) international organizations' (Ruggie 1975: 569 in Wæver, 1997).
7. The present review is limited to discussion of strands of green writing which comment on global or international matters within an endless stream of literature on the environment. This means setting aside a vast number of essays and books: for example, the large mass of literature that might be labelled 'Third World political ecology' which attempts to integrate environmental and political analysis in order to illustrate the dynamic interaction of environmental

and political economic forces, but which seldom has any specific focus on the global, transnational or international politics on the environment; the many volumes on the North's exports of toxic waste to the South; research dealing with the environmental aspects of transnational industry's operations in developing countries; and the many texts on the environmental consequences of the World Bank's diverse relationships with developing country governments. Two overviews make good many of these omissions: a bibliographic review by Marien (1992) and *The Green Reader* (Dobson, 1991), which contains essays on green politics, economics and philosophy.

8. Its equivalent in the USA was the 1972 *A Blueprint for Survival* (Goldsmith, 1972).
9. Hardin's article is probably *the* most cited article on the environment. In 1993 he published *Living within Limits: Ecology, Economics, and Population Taboos*, basically a long dissertation on the laws of nature that must be obeyed: the exponential growth limits, the properties of usury; the significance of human unreliability, and the consequences of reproductive competition.
10. The Montreal Protocol to Control the Substances that Deplete the Ozone-layer (1987). Under the Protocol, developed countries undertook to provide 'access to environmentally safe alternative substances and technology for developing countries', and to 'facilitate bilaterally or multilaterally the provision of subsidies, aid, credits, guarantees or insurance programmes to developing countries for the use of alternative technology and for substitute products' (Montreal Protocol, article 5).
11. A term introduced by philosopher Arne Naess in 1973. Naess characterizes shallow ecology as involving battles against pollution and resource depletion, while still maintaining the health, affluence and security of a relatively privileged few. Deep ecology, on the other hand, involves an alternative world view which rejects the notion of 'man-in-nature' in favour of egalitarianism with all other species.
12. On 'sustainable development', see, for example, Vandana Shiva in Cooper and Palmer (1995) and Engel and Engel (1990), who present different cultural perspectives on environmental and developmental ethics from around the world in their search for a global consensus on 'sustainable development'. A good introduction to the debate on the ethics of sustainable development is the collection edited by Attfield and Wilkins (1992). Mitlin (1992) provides an overview of definitions, commentaries and the origins of discussions in the literature on the concept. On intergenerational ethics, see Robin Attfield (1991, 2nd ed.), ch. 6, and Barry S. Gower (1992) for introductions.

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