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#### Affirmative teams should instrumentally defend topical action --- their failure to do so is a voting issue

#### 1) A limited topic of discussion that provides for ground for discussion is key to productive decision-making and advocacy skills in every and all facets of life---even if their position is contestable that’s distinct from it being valuably debatable--- T debates also solve any possible turn

Steinberg & Freeley 8 \*Austin J. Freeley is a Boston based attorney who focuses on criminal, personal injury and civil rights law, AND \*\*David L. Steinberg , Lecturer of Communication Studies @ U Miami, Argumentation and Debate: Critical Thinking for Reasoned Decision Making pp45-

Debate is a means of settling differences, so there must be a difference of opinion or a conflict of interest before there can be a debate. If everyone is in agreement on a tact or value or policy, there is no need for debate: the matter can be settled by unanimous consent. Thus, for example, it would be pointless to attempt to debate "Resolved: That two plus two equals four," because there is simply no controversy about this statement. (Controversy is an essential prerequisite of debate. Where there is no clash of ideas, proposals, interests, or expressed positions on issues, there is no debate. In addition, debate cannot produce effective decisions without clear identification of a question or questions to be answered. For example, general argument may occur about the broad topic of illegal immigration. How many illegal immigrants are in the United States? What is the impact of illegal immigration and immigrants on our economy? What is their impact on our communities? Do they commit crimes? Do they take jobs from American workers? Do they pay taxes? Do they require social services? Is it a problem that some do not speak English? Is it the responsibility of employers to discourage illegal immigration by not hiring undocumented workers? Should they have the opportunity- to gain citizenship? Docs illegal immigration pose a security threat to our country? Do illegal immigrants do work that American workers are unwilling to do? Are their rights as workers and as human beings at risk due to their status? Are they abused by employers, law enforcement, housing, and businesses? I low are their families impacted by their status? What is the moral and philosophical obligation of a nation state to maintain its borders? Should we build a wall on the Mexican border, establish a national identification can!, or enforce existing laws against employers? Should we invite immigrants to become U.S. citizens? Surely you can think of many more concerns to be addressed by a conversation about the topic area of illegal immigration. Participation in this "debate" is likely to be emotional and intense. However, it is not likely to be productive or useful without focus on a particular question and identification of a line demarcating sides in the controversy. To be discussed and resolved effectively, controversies must be stated clearly. Vague understanding results in unfocused deliberation and poor decisions, frustration, and emotional distress, as evidenced by the failure of the United States Congress to make progress on the immigration debate during the summer of 2007.

Someone disturbed by the problem of the growing underclass of poorly educated, socially disenfranchised youths might observe, "Public schools are doing a terrible job! They are overcrowded, and many teachers are poorly qualified in their subject areas. Even the best teachers can do little more than struggle to maintain order in their classrooms." That same concerned citizen, facing a complex range of issues, might arrive at an unhelpful decision, such as "We ought to do something about this" or. worse. "It's too complicated a problem to deal with." Groups of concerned citizens worried about the state of public education could join together to express their frustrations, anger, disillusionment, and emotions regarding the schools, but without a focus for their discussions, they could easily agree about the sorry state of education without finding points of clarity or potential solutions. A gripe session would follow. But if a precise question is posed—such as "What can be done to improve public education?"—then a more profitable area of discussion is opened up simply by placing a focus on the search for a concrete solution step. One or more judgments can be phrased in the form of debate propositions, motions for parliamentary debate, or bills for legislative assemblies. The statements "Resolved: That the federal government should implement a program of charter schools in at-risk communities" and "Resolved: That the state of Florida should adopt a school voucher program" more clearly identify specific ways of dealing with educational problems in a manageable form, suitable for debate. They provide specific policies to be investigated and aid discussants in identifying points of difference.

To have a productive debate, which facilitates effective decision making by directing and placing limits on the decision to be made, the basis for argument should be clearly defined. If we merely talk about "homelessness" or "abortion" or "crime'\* or "global warming" we are likely to have an interesting discussion but not to establish profitable basis for argument. For example, the statement "Resolved: That the pen is mightier than the sword" is debatable, yet fails to provide much basis for clear argumentation. If we take this statement to mean that the written word is more effective than physical force for some purposes, we can identify a problem area: the comparative effectiveness of writing or physical force for a specific purpose.

Although we now have a general subject, we have not yet stated a problem. It is still too broad, too loosely worded to promote well-organized argument. What sort of writing are we concerned with—poems, novels, government documents, website development, advertising, or what? What does "effectiveness" mean in this context? What kind of physical force is being compared—fists, dueling swords, bazookas, nuclear weapons, or what? A more specific question might be. "Would a mutual defense treaty or a visit by our fleet be more effective in assuring Liurania of our support in a certain crisis?" The basis for argument could be phrased in a debate proposition such as "Resolved: That the United States should enter into a mutual defense treatv with Laurania." Negative advocates might oppose this proposition by arguing that fleet maneuvers would be a better solution. This is not to say that debates should completely avoid creative interpretation of the controversy by advocates, or that good debates cannot occur over competing interpretations of the controversy; in fact, these sorts of debates may be very engaging. The point is that debate is best facilitated by the guidance provided by focus on a particular point of difference, which will be outlined in the following discussion.

#### 2) Discussion of specific policy-questions is crucial for skills development--- forces students to engage in concrete issues of government policy formulation

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These government or quasi-government think tank simulations often provide very similar lessons for high-level players as are learned by students in educational simulations. Government participants learn about the importance of understanding foreign perspectives, the need to practice internal coordination, and the necessity to compromise and coordinate with other governments in negotiations and crises. During the Cold War, political scientist Robert Mandel noted how crisis exercises and war games forced government officials to overcome ‘‘bureaucratic myopia,’’ moving beyond their normal organizational roles and thinking more creatively about how others might react in a crisis or conflict.6 The skills of imagination and the subsequent ability to predict foreign interests and reactions remain critical for real-world foreign policy makers. For example, simulations of the Iranian nuclear crisis\*held in 2009 and 2010 at the Brookings Institution’s Saban Center and at Harvard University’s Belfer Center, and involving former US senior officials and regional experts\*highlighted the dangers of misunderstanding foreign governments’ preferences and misinterpreting their subsequent behavior. In both simulations, the primary criticism of the US negotiating team lay in a failure to predict accurately how other states, both allies and adversaries, would behave in response to US policy initiatives.7

By university age, students often have a pre-defined view of international affairs, and the literature on simulations in education has long emphasized how such exercises force students to challenge their assumptions about how other governments behave and how their own government works.8 Since simulations became more common as a teaching tool in the late 1950s, educational literature has expounded on their benefits, from encouraging engagement by breaking from the typical lecture format, to improving communication skills, to promoting teamwork.9 More broadly, simulations can deepen understanding by asking students to link fact and theory, providing a context for facts while bringing theory into the realm of practice.10 These exercises are particularly valuable in teaching international affairs for many of the same reasons they are useful for policy makers: they force participants to ‘‘grapple with the issues arising from a world in flux.’’11 Simulations have been used successfully to teach students about such disparate topics as European politics, the Kashmir crisis, and US response to the mass killings in Darfur.12 Role-playing exercises certainly encourage students to learn political and technical facts\* but they learn them in a more active style. Rather than sitting in a classroom and merely receiving knowledge, students actively research ‘‘their’’ government’s positions and actively argue, brief, and negotiate with others.13 Facts can change quickly; simulations teach students how to contextualize and act on information.14

#### 3) Switch-side is key---Effective deliberation is only possible in a switch-side debate – forces critical thinking and better advocacy of one’s positions

Keller, et. al, 01 – Asst. professor School of Social Service Administration U. of Chicago (Thomas E., James K., and Tracly K., Asst. professor School of Social Service Administration U. of Chicago, professor of Social Work, and doctoral student School of Social Work, “Student debates in policy courses: promoting policy practice skills and knowledge through active learning,” Journal of Social Work Education, Spr/Summer 2001, EBSCOhost)

SOCIAL WORKERS HAVE a professional responsibility to shape social policy and legislation (National Association of Social Workers, 1996). In recent decades, the concept of policy practice has encouraged social workers to consider the ways in which their work can be advanced through active participation in the policy arena (Jansson, 1984, 1994; Wyers, 1991). The emergence of the policy practice framework has focused greater attention on the competencies required for social workers to influence social policy and placed greater emphasis on preparing social work students for policy intervention (Dear & Patti, 1981; Jansson, 1984, 1994; Mahaffey & Hanks, 1982; McInnis-Dittrich, 1994). The curriculum standards of the Council on Social Work Education (CSWE) require the teaching of knowledge and skills in the political process (CSWE, 1994). With this formal expectation of policy education in schools of social work, the best instructional methods must be employed to ensure students acquire the requisite policy practice skills and perspectives. The authors believe that structured student debates have great potential for promoting competence in policy practice and in-depth knowledge of substantive topics relevant to social policy. Like other interactive assignments designed to more closely resemble "real-world" activities, issue-oriented debates actively engage students in course content. Debates also allow students to develop and exercise skills that may translate to political activities, such as testifying before legislative committees. Finally, and perhaps most importantly, debates may help to **stimulate critical thinking** by shaking students free from **established opinions** and helping them to **appreciate the complexities involved in policy dilemmas.** Relationships between Policy Practice Skills, Critical Thinking, and Learning Policy practice encompasses social workers' "efforts to influence the development, enactment, implementation, or assessment of social policies" (Jansson, 1994, p. 8). Effective policy practice involves analytic activities, such as defining issues, gathering data, conducting research, identifying and prioritizing policy options, and creating policy proposals (Jansson, 1994). It also involves persuasive activities intended to influence opinions and outcomes, such as discussing and debating issues, organizing coalitions and task forces, and providing testimony. According to Jansson (1984,pp. 57-58), social workers rely upon five fundamental skills when pursuing policy practice activities: value-clarification skills for identifying and assessing the underlying values inherent in policy positions; conceptual skills for identifying and evaluating the relative merits of different policy options; interactional skills for interpreting the values and positions of others and conveying one's own point of view in a convincing manner; political skills for developing coalitions and developing effective strategies; and position-taking skills for recommending, advocating, and defending a particular policy. These policy practice skills reflect the hallmarks of critical thinking (see Brookfield, 1987; Gambrill, 1997). The central activities of critical thinking are identifying and challenging underlying assumptions, exploring alternative ways of thinking and acting, and arriving at commitments after a period of questioning, analysis, and reflection (Brookfield, 1987). Significant parallels exist with the policy-making process--identifying the values underlying policy choices, recognizing and evaluating multiple alternatives, and taking a position and advocating for its adoption. Developing policy practice skills seems to share much in common with developing capacities for critical thinking. R.W. Paul (as cited in Gambrill, 1997) states that critical thinkers acknowledge the imperative to argue from opposing points of view and to seek to identify weakness and limitations in one's own position. Critical thinkers are aware that there are many legitimate points of view, each of which (when thought through) may yield some level of insight. (p. 126) John Dewey, the philosopher and educational reformer, suggested that the initial advance in the development of reflective thought occurs in the transition from holding fixed, static ideas to an attitude of doubt and questioning engendered by exposure to alternative views in social discourse (Baker, 1955, pp. 36-40). Doubt, confusion, and conflict resulting from discussion of diverse perspectives "force comparison, selection, and reformulation of ideas and meanings" (Baker, 1955, p. 45). Subsequent educational theorists have contended that learning requires openness to divergent ideas in combination with the ability to synthesize disparate views into a purposeful resolution (Kolb, 1984; Perry, 1970). On the one hand, clinging to the certainty of one's beliefs risks dogmatism, rigidity, and the inability to learn from new experiences. On the other hand, if one's opinion is altered by every new experience, the result is insecurity, paralysis, and the inability to take effective action. The educator's role is to help students develop the capacity to incorporate new and sometimes conflicting ideas and experiences into a coherent cognitive framework. Kolb suggests that, "if the education process begins by bringing out the learner's beliefs and theories, examining and testing them, and then integrating the new, more refined ideas in the person's belief systems, the learning process will be facilitated" (p. 28). The authors believe that involving students in substantive debates challenges them to learn and grow in the fashion described by Dewey and Kolb. Participation in a debate stimulates clarification and critical evaluation of the evidence, logic, and values underlying **one's own policy position.** In addition, to debate effectively students must understand and accurately evaluate the opposing perspective. The ensuing tension between two distinct but legitimate views is designed to yield a reevaluation and reconstruction of knowledge and beliefs pertaining to the issue.

#### And independently a voting issue for limits and ground---our entire negative strategy is based on the “should” question of the resolution---there are an infinite number of reasons that the scholarship of their advocacy could be a reason to vote affirmative--- these all obviate the only predictable strategies based on topical action---they overstretch our research burden and undermine preparedness for all debates

#### And Effective decision-making outweighs---

#### Key to improvement in every and all facets of life

Steinberg & Freeley 8 \*Austin J. Freeley is a Boston based attorney who focuses on criminal, personal injury and civil rights law, AND \*\*David L. Steinberg , Lecturer of Communication Studies @ U Miami, Argumentation and Debate: Critical Thinking for Reasoned Decision Making pp9-10

John F. Kennedy used Cabinet sessions and National Security Council meetings to provide debate to illuminate diverse points of view, expose errors, and challenge assumptions before he reached decisions.17 As he gained experience in office, he placed greater emphasis on debate. One historian points out: "One reason for the difference between the Bay of Pigs and the missile crisis was that [the Bay of Pig\*] fiasco instructed Kennedy in the importance of uninhibited debate in advance of major decision."18 All presidents, to varying degrees, encourage debate among their advisors.

We may never be called on to render the final decision on great issues of national policy, but we are constantly concerned with decisions important to ourselves for which debate can be applied in similar ways. That is, this debate may take place in our minds as we weigh the pros and cons of the problem, or we may arrange for others to debate the problem for us. Because we all are increasingly involved in the decisions of the campus, community, and society in general, it is in our intelligent self-interest to reach these decisions through reasoned debate.

#### It’s the only portable skill

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After several days of intense debate, first the United States House of Representatives and then the U.S. Senate voted to authorize President George W. Bush to attack Iraq if Saddam Hussein refused to give up weapons of mass destruction as required by United Nations's resolutions. Debate about a possible military\* action against Iraq continued in various governmental bodies and in the public for six months, until President Bush ordered an attack on Baghdad, beginning Operation Iraqi Freedom, the military campaign against the Iraqi regime of Saddam Hussein. He did so despite the unwillingness of the U.N. Security Council to support the military action, and in the face of significant international opposition.

Meanwhile, and perhaps equally difficult for the parties involved, a young couple deliberated over whether they should purchase a large home to accommodate their growing family or should sacrifice living space to reside in an area with better public schools; elsewhere a college sophomore reconsidered his major and a senior her choice of law school, graduate school, or a job. Each of these\* situations called for decisions to be made. Each decision maker worked hard to make well-reasoned decisions.

Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. We make countless individual decisions every day. To make some of those decisions, we work hard to employ care and consideration; others seem to just happen. Couples, families, groups of friends, and coworkers come together to make choices, and decision-making homes from committees to juries to the U.S. Congress and the United Nations make decisions that impact us all. Every profession requires effective and ethical decision making, as do our school, community, and social organizations.

We all make many decisions even- day. To refinance or sell one's home, to buy a high-performance SUV or an economical hybrid car. what major to select, what to have for dinner, what candidate CO vote for. paper or plastic, all present lis with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration?

Is the defendant guilty as accused? Tlie Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet even the choice of which information to attend to requires decision making. In 2006, TIMI: magazine named YOU its "Person of the Year." Congratulations! Its selection was based on the participation not of ''great men" in the creation of history, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs. online networking. You Tube. Facebook, MySpace, Wikipedia, and many other "wikis," knowledge and "truth" are created from the bottom up, bypassing the authoritarian control of newspeople. academics, and publishers. We have access to infinite quantities of information, but how do we sort through it and select the best information for our needs?

The ability of every decision maker to make good, reasoned, and ethical decisions relies heavily upon their ability to think critically. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength. Critical thinkers are better users of information, as well as better advocates.

Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized.

Much of the most significant communication of our lives is conducted in the form of debates. These may take place in intrapersonal communications, in which we weigh the pros and cons of an important decision in our own minds, or they may take place in interpersonal communications, in which we listen to arguments intended to influence our decision or participate in exchanges to influence the decisions of others.

Our success or failure in life is largely determined by our ability to make wise decisions for ourselves and to influence the decisions of others in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job oiler, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few of the thousands of decisions we may have to make. Often, intelligent self-interest or a sense of responsibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for out product, or a vote for our favored political candidate.

### 1NC

#### The ecological crunch is coming---overwhelming scientific evidence proves an impending environmental crisis risks extinction

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 4-6

This impending crisis is caused by the accelerating damage to the natural environment on which humans depend for their survival. This is not to deny that there are other means that may bring catastrophe upon the earth. John Gray for example5 argues that destructive war is inevitable as nations become locked into the struggle for diminishing resources. Indeed, Gray believes that war is caused by the same instinctual behavior that we discuss in relation to environmental destruction. Gray regards population increases, environmental degradation, and misuse of technology as part of the inevitability of war. War may be inevitable but it is unpredictable in time and place, whereas environmental degradation is relentless and has progressively received increasing scientific evidence. Humanity has a record of doomsayers, most invariably wrong, which has brought a justifiable immunity to their utterances. Warnings were present in The Tales of Ovid and in the Old and New Testaments of the Bible, and in more recent times some of the predictions from Thomas Malthus and from the Club of Rome in 1972, together with the “population bomb” of Paul Ehrlich, have not eventuated. The frequent apocalyptic predictions from the environmental movement are unpopular and have been vigorously attacked.

So it must be asked, what is different about the present warnings? As one example, when Sir David King, chief scientist of the UK government, states that “in my view, climate change is the most severe problem that we are facing today, more serious than the threat of terrorism,”6 how is this and other recent statements different from previous discredited prognostications? Firstly, they are based on the most detailed and compelling science produced with the same scientific rigor that has seen humans travel to the moon and create worldwide communication systems. Secondly, this science embraces a range of disciplines of ecology, epidemiology, climatology, marine and fresh water science, agricultural science, and many more, all of which agree on the nature and severity of the problems. Thirdly, there is virtual unanimity of thousands of scientists on the grave nature of these problems. Only a handful of skeptics remain.

During the past decade many distinguished scientists, including numerous Nobel Laureates, have warned that humanity has perhaps one or two generations to act to avoid global ecological catastrophe. As but one example of this multidimensional problem, the Intergovernmental Panel on Climate Change (IPCC) has warned that global warming caused by fossil fuel consumption may be accelerating.7 Yet climate change is but one of a host of interrelated environmental problems that threaten humanity. The authors have seen the veils fall from the eyes of many scientists when they examine all the scientific literature. They become advocates for a fundamental change in society. The frequent proud statements on economic growth by treasurers and chancellors of the exchequer instill in many scientists an immediate sense of danger, for humanity has moved one step closer to doom.

Science underpins the success of our technological and comfortable society. Who are the thousands of scientists who issue the warnings we choose to ignore? In 1992 the Royal Society of London and the U.S. National Academy of Sciences issued a joint statement, Population Growth, Resource Consumption and a Sustainable World,8 pointing out that the environmental changes affecting the planet may irreversibly damage the earth’s capacity to maintain life and that humanity’s own efforts to achieve satisfactory living conditions were threatened by environmental deterioration. Since 1992 many more statements by world scientific organizations have been issued.9 These substantiated that most environmental systems are suffering from critical stress and that the developed countries are the main culprits. It was necessary to make a transition to economies that provide increased human welfare and less consumption of energy and materials. It seems inconceivable that the consensus view of all these scientists could be wrong. There have been numerous international conferences of governments, industry groups, and environmental groups to discuss the problems and develop strategy, yet widespread deterioration of the environment accelerates. What is the evidence?

The Guide to World Resources, 2000 –2001: People and Ecosystems, The Fraying Web of Life10 was a joint report of the United Nations Development Program, the United Nations Environment Program, the World Bank, and the World Resources Institute. The state of the world’s agricultural, coastal forest, freshwater, and grassland ecosystems were analyzed using 23 criteria such as food production, water quantity, and biodiversity. Eighteen of the criteria were decreasing, and one had increased (fiber production, because of the destruction of forests). The report card on the remaining four criteria was mixed or there was insufficient data to make a judgment. In 2005, The Millennium Ecosystem Assessment Synthesis Report by 1,360 scientific experts from 95 countries was released.11 It stated that approximately 60 percent of the ecosystem services that support life on earth—such as fresh water, fisheries, and the regulation of air, water, and climate—are being degraded or used unsustainably. As a result the Millennium Goals agreed to by the UN in 2000 for addressing poverty and hunger will not be met and human well-being will be seriously affected.

#### This means a transition to environmental authoritarianism’s coming now---solves extinction

Mark Beeson 10, Professor and Head of the Department of Political Science & International Studies, University of Birmingham, 2010, “The coming of environmental authoritarianism,” Environmental Politics, Vol. 19, No. 2, DOI:10.1080/09644010903576918

The environment has become the defining public policy issue of the era. Not only will political responses to environmental challenges determine the health of the planet, but continuing environmental degradation may also affect political systems. This interaction is likely to be especially acute in parts of the world where environmental problems are most pressing and the state's ability to respond to such challenges is weakest. One possible consequence of environmental degradation is the development or consolidation of authoritarian rule as political elites come to privilege regime maintenance and internal stability over political liberalisation. Even efforts to mitigate the impact of, or respond to, environmental change may involve a decrease in individual liberty as governments seek to transform environmentally destructive behaviour. As a result, ‘environmental authoritarianism’ may become an increasingly common response to the destructive impacts of climate change in an age of diminished expectations.

#### The aff’s faith in bottom-up change delays the transition and only authoritarian coercion can resolve environmental decline fast enough---the 1AC is founded on an ontology of abundance

Mathew Humphrey 7, Reader in Political Philosophy at the University of Nottingham, UK, 2007, Ecological Politics and Democratic Theory: The Challenge to the Deliberative Ideal, p. 20-21

If these changes are necessary - the downgrading, curtailment and reconceptualisation of democracy, liberties, and justice, as well as the raising to primacy of integrity and ecological virtue - how are the necessary changes to come about? Value change represents the best 'long-term' hope but the ecological crisis is not a 'long-term' problem. These changes have to be introduced quickly and before there has been time to inculcate value shifts in the population. The downgrading of rights and liberties has to be achieved through policy and institutional change, even while the question of a long-term change of values is also addressed. For both these tasks what is required is political leadership and the institution of the state.

The immediate problem lies in the collective action problem that arises in respect of the looming ecological constraints on economic activity and the potential collapse of the global commons. The end of the 'golden age' of material abundance, as we slide back down the other side of 'Hubbert's pimple’ will bring about intense competition for scarce resources. To understand politics under these circumstances, we have to turn back to Hobbes and Burke, the political philosophers who conceptualised life under conditions of scarcity, and also to Plato, commended for his healthy mistrust of democracy.

For Ophuls a crucial element of political philosophy is the definition of reality itself; political philosophy carries within it an ontologieal component which sets out the foundations of political possibility. The contemporary West he sees as defined by the 'philosophers of the great frontier' Locke, Smith, and Marx. These are the political philosophers of abundance. For Locke the proviso of always leaving 'as much and as good' for others in appropriation could always be met even when there was no unappropriated land left, as the productivity of the land put to useful work would always create better opportunities for those coming later. Smiths 'invisible hand' thesis was also dependent upon the assumption that the material goods would always be available for individual to accomplish their own economic plans. For Marx the 'higher phase' of communist society arrives 'after the productive forces have... increased with the all-round development of the individual, and all the springs of co-operative wealth flow more abundantly' (Marx, 1970: 19). For Ophuls these are all the political philosophies of abundance. Ecological crisis, however, returns us to the Hobbesian struggle of all against all (Heilbroner, 1974: 89). With ecological scarcity we return to the classical problems of political theory that 400 years of abnormal abundance has shielded us from (Ophuls, 1977: 164). Both liberalism and socialism represent the politics of this 'abnormal abundance' and with the demise of this period we return to the eternal problems of politics.

Hobbes, then, is seen as the political philosopher of ecological scarcity avant la lettre. 'Hardin's "logic of the commons" is simply a special version of the general political dynamic of Hobbes' "state of nature"' (Ophuls, 1977; 148). Competition over scarce resources leads to conflict, even when all those involved realise that they would be collectively better off if they could co-operate, 'to bring about the tragedy of the commons it is not necessary that men be bad, only that they not be actively good' (Ophuls, 1977: 149). It is this Hobbesian struggle that may impose 'intolerable strains on the representative political apparatus that has been historically associated with capitalist societies' (Heilbroner, 1974: 89). Coercion is seen as the solution (and it is hoped, although as we have seen not for terribly good reasons, that this coercion can be agreed democratically), and the appropriate agent of this solution is the state. The transition from abundance to scarcity will have to be centralised and expert-controlled, and it is unlikely that 'a steady state polity could be democratic' (Ophuls, 1977: 162). As we shall see in the following paragraphs, this faith in the ability of the state to institute centralised controls that would be obeyed by its citizens is one of the areas that has attracted fierce criticism from contemporary green political theorists.

#### Breaking down elite control of energy policy is suicidal---destroys the capacity of centralized government to respond to climate change and environmental degradation

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Yet, whatever we may think about Asia's authoritarian regimes, we need to recognise that they have frequently been associated with a (generally successful) historical pattern of development that has prioritised the economic over the political, and that this model may continue to have appeal and potential efficacy (Beeson 2007b). The possibility that the state will, for better or worse, remain at the centre of attempts at environmental management is recognised by some scholars (Meadowcroft 2005), but even some of the most sophisticated analyses of the state's role seem overwhelming Eurocentric, highly abstract and not terribly helpful in explaining current or likely future political and environmental outcomes in places like Southeast Asia. For example, Eckersley's (2004, p. 178) belief that there is ‘the potential for a vibrant public sphere and innovative discursive procedures to lift the horizons of not only democratic opinion formation but also democratic will-formation beyond the territorially bounded community of citizens’, has little obvious resonance with the history of much of Southeast Asia [emphasis in original]. The reality is that the Philippines, the country with arguably the most vibrant civil society in Southeast Asia, also has one of the most appalling environmental records (Fahn 2003, p. 117).

Even in ‘developed’ industrial democracies with long traditions of political pluralism and arguably more effective civil societies, it has long been recognised that the exercise of effective ‘green’ agency is highly problematic and faces fundamental problems of mobilisation, organisation and collective action. The – perhaps understandable – suspicion of traditional politics, hierarchy and political authority has often rendered green parties politically ineffective (Goodin 1992). Even if we recognise the changes that have taken place in the social structures and even consciousness of many Western societies (Carter 2007), the reality on the ground in much of Southeast Asia and China is very different. Quotidian reality becomes especially important when we consider the potential efficacy of deliberative democracy, which some see as a way of resolving political conflicts over the environment.

Although deliberative democracy has been described as ‘the currently hegemonic approach to democracy within environmental thinking’ (Arias-Maldonado 2007, p. 245), it has little obvious relevance to the situation in East Asia. While there is much that is admirable about the central precepts of deliberative democracy (see Bohman 1998), its underlying assumptions about the circumstances in which political activity actually occur are strikingly at odds with the lived reality outside North America and Western Europe. This merits emphasis because for some writers rational, informed discourse is central to sustainable environmental management and the resolution of the competing interests that inevitably surround it (Hamilton and Wills-Toker 2006). And yet, as the very limited number of studies that actually examine environmental politics under authoritarian rule demonstrate, the reality is very different and the prospects for the development of progressive politics are very limited (Doyle and Simpson 2006). Even if we assume that political circumstances do actually allow for a politically unconstrained and informed discussion of complex issues, as Arias-Maldonado (2007, p. 248) points out, ‘the belief that citizens in a deliberative context will spontaneously acquire ecological enlightenment, and will push for greener decisions, relies too much on an optimistic, naive view of human nature, so frequently found in utopian political movements’.

In much of East Asia, the population may not have the luxury or capacity even to engage in these sorts of discursive practices, while the absence of effective democracy in much of the region stands as a continuing obstacle to achieving anything approximating deliberative democracy. Even more problematically in the long-run, there is no compelling evidence that democracy of any sort will necessarily promote good environmental outcomes (Neumayer 2002), or that rising living standards will inevitably deliver a sustainable environment (Dinda 2004). On the contrary, there is evidence to suggest that in the initial phases at least, ‘democratisation could indirectly promote environmental degradation through its effect on national income’ (Li and Reuveny 2006, p. 953). In other words, even the best of all outcomes – rising living standards and an outbreak of democracy – may have unsustainable environmental consequences that may prove to be their undoing in the longer-term. In such circumstances, ideas about possible ways of reorganising societies to lessen their impact on the natural environment may not find sufficient support to make them realisable or effective. As Lieberman (2002, p. 709) points out, ‘an idea's time arrives not simply because the idea is compelling on its own terms, but because opportune political circumstances favor it’. In much of Southeast Asia and China the forces supporting environmental protection are comparatively weak and unable to overcome powerful vested interests intent on the continuing exploitation of natural resources.

In short, predominantly Western concerns with ‘thick cosmopolitanism’ and the hope that a ‘metabolistic [sic] relationship with the natural environment’ might bind us to strangers (Dobson 2006, p. 177), seem bizarrely at odds with lived experience where climate change is already profoundly undermining sociability within national frameworks, let alone between them (Raleigh and Urdal 2007). The sobering reality would seem to be that ‘… as the human population grows and environmental damage progresses, policymakers will have less and less capacity to intervene to keep damage from producing serious social disruption, including conflict’ (Homer-Dixon 1991, p. 79).

#### Only top-down, centralized imposition of constraints on freedom can guarantee planetary survival---their ethic will inevitably fail to improve ecological outcomes---an accelerating crisis makes authoritarianism inevitable, and the worse the environment gets, the worse the constraints on freedom will be

Mathew Humphrey 7, Reader in Political Philosophy at the University of Nottingham, UK, 2007, Ecological Politics and Democratic Theory: The Challenge to the Deliberative Ideal, p. 14-15

In terms of the first of these points, that our democratic choices reflect a narrow understanding of our immediate interests and not an enlightened view of our long-term welfare, the case is made by Ophuls. He claims that we are now 'so committed to most of the things that cause or support the evils' with which he is concerned that 'we are almost paralysed; nearly all the constructive actions that could be taken at present... are so painful to so many people in so many ways that they are indeed totally unrealistic, and neither politicians nor citizens would tolerate them' (Ophuls, 1977: 224).4 Environmentally friendly policies can be justifiably imposed upon a population that 'would do something quite different if it was merely left to its own immediate desires and devices' (Ophuls, 1977: 227): currently left to these devices, the American people 'have so far evinced little willingness to make even minor sacrifices... for the sake of environmental goals' (Ophuls, 1977: 197). Laura Westra makes a similar argument in relation to the collapse of Canadian cod fisheries, which is taken to illustrate a wider point that we cannot hope to 'manage' nature when powerful economic and political interests are supported by 'uneducated democratic preferences and values' (Westra, 1998: 95). More generally reducing our 'ecological footprint' means 'individual and aggregate restraints the like of which have not been seen in most of the northwestern world. For this reason, it is doubtful that persons will freely embrace the choices that would severely curtail their usual freedoms and rights... even in the interests of long-term health and self-preservation.” (Westra, 1998: 198). Thus we will require a 'top-down' regulatory regime to take on 'the role of the "wise man" of Aristotelian doctrine as well as 'bottom-up' shifts in values (Westra, 1998: 199). Ophuls also believes that in certain circumstances (of which ecological crisis is an example) 'democracy must give way to elite rule' (1977: 159) as critical decisions have to be made by competent people.

The classic statement of the collective action problem in relation to environmental phenomena was that of Hardin (1968). The 'tragedy' here refers to the "remorseless working of things' towards an 'inevitable destiny' (Hardin, 1968: 1244, quoting A. N. Whitehead). Thus even if we are aware of where our long-term, enlightened interests do lie, the preferred outcome is beyond our ability to reach in an uncoerced manner. This is the n-person prisoners' dilemma, a well established analytical tool in the social analysis of collectively suboptimal outcomes. A brief example could be given in terms of an unregulated fishery. The owner of trawler can be fully aware that there is collective over-extraction from the fishing grounds he uses, and so the question arises of whether he should self-regulate his own catch. If he fishes to his maximum capacity, his gain is a catch fractionally depleted from what it would be if the fisheries were fully stocked. If the 'full catch' is 1, then this catch is 1 - £, where £ is the difference between the full stock catch and the depleted stock catch divided by the number of fishing vessels. If the trawlerman regulates his own catch, then he loses the entire amount that he feels each boat needs to surrender, and furthermore he has no reason to suppose that other fishermen would behave in a similar fashion, in fact he will expect them to benefit by catching the fish that he abjures. In the language of game theory he would be a 'sucker', and the rational course of action is to continue taking the maximum catch, despite the predictable conclusion that this course of action, when taken by all fishermen making the same rational calculation, will lead to the collapse of the fishery. Individual rationality leads to severely suboptimal outcomes. Under these circumstances an appeal to conscience is useless, as it merely places the recipient of the appeal in a 'double-bind'. The open appeal is 'behave as a responsible citizen, or you will be condemned. But there is also a covert appeal in the opposite direction; 'If you do behave as we ask, we will secretly condemn you for a simpleton who can be shamed into standing aside while the rest of us exploit the commons' (Hardin, 1968: 246). Thus the appeal creates the imperative both to behave responsibly and to avoid being a sucker.

In terms of democracy, what this entails is that, in general, we have to be prepared to accept coercion in order to overcome the collective action problem.5 The Leviathan of the state is the institution that has the political power required to solve this conundrum. 'Mutual coercion, mutually agreed on" is Hardin's famous solution to the tragedy of the commons. Revisiting the 'tragedy' argument in 1998, Hardin held that '[i]ts message is, I think, still true today. Individualism is cherished because it produces freedom, but the gift is conditional: The more population exceeds the carrying capacity of the environment, the more freedoms must be given up' (Hardin, 1998: 682). On this view coercion is an integral part of politics: the state coerces when it taxes, or when it prevents us from robbing banks. Coercion has, however, become 'a dirty word for most liberals now' (Hardin, 1968: 1246) but this does not have to be the case as long as this coercion comes about as a result of the democratic will. This however, requires overcoming the problems raised by the likes of Ophuls and Westra, that is, it is dependent upon the assumption that people can agree to coerce each other in order to realise their long-term, 'enlightened' self-interest. If they cannot, and both the myopic and collective action problem ecological objections to democracy arc valid, then this coercion may not be 'mutually agreed upon' but rather imposed by Ophuls' ecological 'elite' or Westra's Aristotelian 'wise man'. Under these circumstances there seems to be no hope at all for a reconciliation of ecological imperatives and democratic decision-making: we are faced with a stark choice, democracy or ecological survival.

### 1NC

#### Our future historian recounts when policymakers substantially reduced restrictions on natural gas production in the United States

#### In April 2013, newly-unrestricted access to natural gas for drilling led to a bipartisan agreement to fund President Obama’s Energy Security Trust Fund---it would have failed without the plan

Phil Taylor 13, E&E Reporter, 2/13/13, “Obama's energy trust doesn't include expanded drilling,” http://www.eenews.net/public/Greenwire/2013/02/13/1

President Obama's proposed energy trust aimed at weaning the U.S. auto fleet from oil won't require expanded drilling, a White House aide said today.

That is likely to come as a relief for conservationists who have opposed drilling in the Arctic National Wildlife Refuge and along the Atlantic and Pacific coasts, but it will disappoint some lawmakers and energy groups that argue new access is needed to increase revenues.

Obama prominently featured the proposed Energy Security Trust in his hourlong State of the Union speech last night as he also pledged to take executive steps to curb global warming gases and speed drilling and renewable energy production on public lands.

"I propose we use some of our oil and gas revenues to fund an Energy Security Trust that will drive new research and technology to shift our cars and trucks off oil for good," Obama said. "If a nonpartisan coalition of CEOs and retired generals and admirals can get behind this idea, then so can we."

He was referring to the group Securing America's Future Energy (SAFE), which last December proposed such a trust be funded by revenues from drilling in frontier areas including the Atlantic, Pacific, ANWR and the eastern Gulf of Mexico.

But the White House said the trust would be funded by drilling that currently occurs on public lands and waters. The administration will propose that $200 million be set aside each year for the next decade to support the transition to electric- and natural gas-powered vehicles and homegrown biofuels.

The proposal assumes an increase in production on public lands. The White House in its fiscal 2014 budget plans to propose a 20 percent increase for the Bureau of Land Management's oil and gas program, which would support faster approvals of leasing and drilling on public lands in the West.

Obama's energy trust proposal drew support from key lawmakers, business and military officials, and at least one conservationist, even as some Republicans criticized it as another wasteful spending program.

But without new revenues from expanded drilling, it is unclear whether Congress would authorize a portion of oil and gas money that currently goes to the U.S. Treasury to be siphoned for research into new vehicle technologies and biofuels.

Such legislation may be a difficult sell as Congress tackles the nation's deficit woes.

"CBO is going to have a fit if you try to spend it twice," said Robert Dillon, spokesman for Sen. Lisa Murkowski (R-Alaska), the ranking member of the Senate Energy and Natural Resources Committee. "This is just more rhetoric unfortunately, and it's disappointing."

Murkowski this morning released a statement praising the president's trust proposal, noting that her energy blueprint earlier this month proposed a similar Advanced Energy Trust Fund, which would use new energy revenues to support renewable energy, energy efficiency, alternative fuels and advanced vehicles. But that proposal also assumes new drilling access is allowed in places including ANWR.

"New production on previously closed federal lands could provide a substantial source of new revenue to fund research on the most promising new energy technologies, while paying down the national debt," Murkowski said. "I intend to get to work on this as soon as possible."

And SAFE, in pitching the Energy Security Trust in a report last December, said money should come from drilling in frontier areas currently off limits, which it estimates could raise roughly $88 billion over the next 20 years from new leasing bids and royalties.

Such a proposal would be strongly opposed by environmentalists and many Democrats.

It would take an act of Congress to open the eastern Gulf or ANWR and a major shift in administrative policy to allow drilling in the Atlantic and Pacific, which the Interior Department has barred until at least 2017.

#### The ESTF funded research into advanced second-generation biofuels

Roland Hwang 13, Natural Resources Defense Council, 2/13/13, “Ending oil subsidies can pay for Energy Security Trust,” http://switchboard.nrdc.org/blogs/rhwang/ending\_oil\_subsidies\_to\_pay\_fo.html

In his State of the Union speech, President Obama proposed the creation of an “Energy Security Trust” to find clean alternatives to fuel our nation’s cars and trucks. We think that’s an excellent idea. One way to support this goal is to simply eliminate the staggering $8 billion we as taxpayers have to fork-over to the over-subsidized oil and gas industry every year and use a portion of the savings to fund the trust.

Oil companies do not need or deserve help from the government. With the five largest oil companies (BP, Exxon, Shell, Chevron, and ConocoPhillips) earning an astounding $118 billion in profits last year, clearly these companies are too mature and too profitable to justify $8 billion in government support. What a waste.

Momentum is growing to end these wasteful programs and not a minute to soon. Just today, U.S. Senator Robert Menendez (D-NJ) reintroduced legislation with 16 cosponsors that would repeal tax subsidies for the “Big 5” oil companies and raise $24 billion in savings over 10 years. Last week Rep. Ed Markey (D-Mass.), Ranking Democratic Member of the House Natural Resources Committee, introduced similar legislation, HR 601.

Our dependence on oil is the largest source of our carbon pollution for the U.S.. Besides fueling unpredictable and dangerous weather events, oil is at the root of $50 billion in annual heath costs and another $515 million in property damage from oil spills. High and volatile oil prices drain our pocketbooks and drag down economic growth. More unnecessary waste.

Since the transportation sector is responsible for 70 percent of our oil dependence to reduce high costs to health and property, we must make our cars and trucks more fuel efficient and replace oil with cleaner fuels. The good news is options are available now, like electricity and advanced biofuels that do not compete with food.

Last year, the President took the single biggest step to cut our nation's oil dependence and carbon pollution when he doubled fuel efficiency standards for cars and light trucks. Ending oil subsidies and funding clean alternative is the common sense next step to reduce our dangerous oil dependence and put taxpayer dollars to better use.

#### Our dystopian future-historical approach demonstrates how that R&D into advanced biofuels led to synthetic biotech developed exclusively for agrofuel crops---and that research was twisted to create incurable bioweapons

Brian Tokar 9, Director of the Institute for Social Ecology, and Rachel Smolker, Co-Director of BiofuelWatch, Ph.D. in behavioral ecology from the University of Michigan and worked as a field biologist, 2/24/9, “Biofuels: Promise or Threat?,” http://ww4report.com/node/6926

The widespread application of biotechnology for agrofuel production, including genetically engineered (GE) feedstock crops such as GE grasses and GE trees, and plans to use synthetic biology and other genetic engineering techniques to alter and construct microbes, is an unacceptable and dangerous risk. [7]

\*\*\*TO FOOTNOTES

[7] Agrofuels have become the major focus of biotechnology R&D. In addition to a suite of new GE

feedstock developments, companies like Arborgen in the U.S. are developing GE tree varieties with 1) reduced lignin content 2) disease, insect and stress resistance, 3) fast growth, 4) cold tolerance, 5) modified oil content (jatropha and oil palm) and 6) sterility - all characteristics deemed profitable for agrofuel and pulp applications. Given that trees spread their pollen and seeds across huge distances and/or have many wild relatives in native forest ecosystems, cross contamination between GE trees and native trees is inevitable and entails unpredictable, potentially disastrous implications for forest ecosystems, wildlife and forest dependent human communities. (Petermann, A. and Tokar, B. 2007. Cellulosic fuels, GE trees and the contamination of native forests. In: R. Smolker, et al. The True Cost of Agrofuels: Impacts on Food, Forests, People and Climate," Global Forest Coalition [21] 2007 [PDF])

The newly emerging technique of "Synthetic Biology" is focused on developing microbes that can efficiently produce enzymes for fuel production. If genetic modification has raised biosafety concerns, those pale in comparison to the safety and ecological risks of synthetic organisms. Unlike earlier genetic engineering where genes are sourced from existing organisms, synthetic DNA sequences may have no known analogue in nature, and numerous pathways are combined. The consequences of contamination by such organisms are entirely unpredictable. Currently, the push for microbes for agrofuel production is driving the Synthetic Biology industry forward, making the ability to build dangerous and deadly microbes including bioweapons, cheaper, easier and harder to control. (Extreme Genetic Engineering: an introduction to synthetic biology. ETC Group [22])

#### SynthBio never would have won public acceptance without a large-scale push for advanced biofuels

ETC 7 – ETC Group (Action Group on Erosion Technology and Concentration), an international civil sociaety organistion based on Canada dedicated to conservation and sustainable advancement of cultural and ecological diversity, January 2007, “Extreme Genetic Engineering: An Introduction to Synthetic Biology,” http://www.agriculturedefensecoalition.org/sites/default/files/file/agriculture\_57/57M%202010%20ETC%20Group%20Extreme%20Genetic%20Engineering%20An%20Introductory%20Report%20January%202007.pdf

But concerns about synbio’s bioweaponry potential are not limited to the construction or reconstruction of virulent microorganisms. Work in the area of pathway engineering is allowing synthetic biologists to construct the genetic networks that code for particular proteins and these synthetic networks can then be inserted into microbial hosts such as E. coli or yeast. (See Pathway Engineering, p. 19.) Microbes could function as “biofactories” to produce natural protein poisons such as snake, insect and spider venoms, plant toxins and bacterial toxins such as those that cause anthrax, botulism, cholera, diphtheria, staphylococcal food poisoning and tetanus.137 In addition, biowarfare experts are concerned that protein engineering could be used to create hybrids of protein toxins.138 A 2003 declassiﬁed CIA document from the US, entitled “The Darker Bioweapons Future,” acknowledges that, “Growing understanding of the complex biochemical pathways that underlie life processes has the potential to enable a class of new, more virulent biological agents engineered to attack distinct biochemical pathways and elicit speciﬁc effects...The same science that may cure some of our worst diseases could be used to create the world’s most frightening weapons.”139

The proliferation of synbio techniques means that the threat of bioterror (or bioerror, as Martin Rees, the UK’s Astronomer Royal, has called an unintentional but nonetheless deadly biotech mishap)140 is constantly evolving, challenging the abilities of the international Biological and Toxin Weapons Convention (BWC) and civil society weaponswatchdogs to monitor and prevent biowarfare. Synbio’s rapidly changing nature will also affect the way that nations conduct war. Drew Endy, one of the leaders in the ﬁeld of synthetic biology, has warned about what he calls “the remilitarization of biology”141 that could follow from developments in synbio-technologies.

II. The New Synthetic Energy Agenda – Rebooting Biofuels

“Something I’m really excited about are the synthetic biology projects they’re working on to create new kinds of fuels so we can reduce our dependence on oil and protect our environment.” – Arnold Schwarzenegger, Governor of California146

When genetically modiﬁed organisms were ﬁrst commercialised in the mid 1990s the controversy was largely focused on agriculture and food. A decade later, as ﬂedgling companies seek to move synthetic organisms from lab to marketplace, agriculture is once again on center stage – only this time the spotlight isn’t shining on agri-food, but on agri-energy.

Synthetic biology’s promoters are hoping that the promise of a very “green” techno-ﬁx – synthetic microbes that manufacture biofuels cheaply or put a chill on climate change – will prove so seductive that the technology will win public acceptance despite its risks and dangers.

#### The risks of synthetic biology inform a vision of the ultimate dystopian future

Anders Sandberg 8, is a James Martin Research Fellow at the Future of Humanity Institute at Oxford University; Jason G. Matheny, PhD candidate in Health Policy and Management at Johns Hopkins Bloomberg School of Public Health and special consultant to the Center for Biosecurity at the University of Pittsburgh Medical Center; Milan M. Ćirković, senior research associate at the Astronomical Observatory of Belgrade and assistant professor of physics at the University of Novi Sad in Serbia and Montenegro, 9/8/8, “How can we reduce the risk of human extinction?,” Bulletin of the Atomic Scientists, http://www.thebulletin.org/web-edition/features/how-can-we-reduce-the-risk-of-human-extinction

The risks from anthropogenic hazards appear at present larger than those from natural ones. Although great progress has been made in reducing the number of nuclear weapons in the world, humanity is still threatened by the possibility of a global thermonuclear war and a resulting nuclear winter. We may face even greater risks from emerging technologies. Advances in synthetic biology might make it possible to engineer pathogens capable of extinction-level pandemics. The knowledge, equipment, and materials needed to engineer pathogens are more accessible than those needed to build nuclear weapons. And unlike other weapons, pathogens are self-replicating, allowing a small arsenal to become exponentially destructive. Pathogens have been implicated in the extinctions of many wild species. Although most pandemics "fade out" by reducing the density of susceptible populations, pathogens with wide host ranges in multiple species can reach even isolated individuals. The intentional or unintentional release of engineered pathogens with high transmissibility, latency, and lethality might be capable of causing human extinction. While such an event seems unlikely today, the likelihood may increase as biotechnologies continue to improve at a rate rivaling Moore's Law.

### 1nc case

#### No impact---mitigation and adaptation will solve---no tipping point or “1% risk” args

Robert O. Mendelsohn 9, the Edwin Weyerhaeuser Davis Professor, Yale School of Forestry and Environmental Studies, Yale University, June 2009, “Climate Change and Economic Growth,” online: http://www.growthcommission.org/storage/cgdev/documents/gcwp060web.pdf

The heart of the debate about climate change comes from a number of warnings from scientists and others that give the impression that human-induced climate change is an immediate threat to society (IPCC 2007a,b; Stern 2006). Millions of people might be vulnerable to health effects (IPCC 2007b), crop production might fall in the low latitudes (IPCC 2007b), water supplies might dwindle (IPCC 2007b), precipitation might fall in arid regions (IPCC 2007b), extreme events will grow exponentially (Stern 2006), and between 20–30 percent of species will risk extinction (IPCC 2007b). Even worse, there may be catastrophic events such as the melting of Greenland or Antarctic ice sheets causing severe sea level rise, which would inundate hundreds of millions of people (Dasgupta et al. 2009). Proponents argue there is no time to waste. Unless greenhouse gases are cut dramatically today, economic growth and well‐being may be at risk (Stern 2006).

These statements are largely alarmist and misleading. Although climate change is a serious problem that deserves attention, society’s immediate behavior has an extremely low probability of leading to catastrophic consequences. The science and economics of climate change is quite clear that emissions over the next few decades will lead to only mild consequences. The severe impacts predicted by alarmists require a century (or two in the case of Stern 2006) of no mitigation. Many of the predicted impacts assume there will be no or little adaptation. The net economic impacts from climate change over the next 50 years will be small regardless. Most of the more severe impacts will take more than a century or even a millennium to unfold and many of these “potential” impacts will never occur because people will adapt. It is not at all apparent that immediate and dramatic policies need to be developed to thwart long‐range climate risks. What is needed are long‐run balanced responses.

#### No extinction from climate change

NIPCC 11 – the Nongovernmental International Panel on Climate Change, an international panel of nongovernment scientists and scholars, March 8, 2011, “Surviving the Unprecedented Climate Change of the IPCC,” online: http://www.nipccreport.org/articles/2011/mar/8mar2011a5.html

In a paper published in Systematics and Biodiversity, Willis et al. (2010) consider the IPCC (2007) "predicted climatic changes for the next century" -- i.e., their contentions that "global temperatures will **increase by 2-4°C** and possibly beyond, sea levels will rise (~1 m ± 0.5 m), and atmospheric CO2 will increase by up to 1000 ppm" -- noting that it is "widely suggested that the magnitude and rate of these changes will result in many plants and animals going extinct," citing studies that suggest that "within the next century, over 35% of some biota will have gone extinct (Thomas et al., 2004; Solomon et al., 2007) and there will be extensive die-back of the tropical rainforest due to climate change (e.g. Huntingford et al., 2008)."

On the other hand, they indicate that some biologists and climatologists have pointed out that "many of the predicted increases in climate have **happened before**, in terms of both **magnitude and rate of change** (e.g. Royer, 2008; Zachos et al., 2008), and yet biotic communities have **remained remarkably resilient** (Mayle and Power, 2008) and in some cases **thrived** (Svenning and Condit, 2008)." But they report that those who mention these things are often "placed in the 'climate-change denier' category," although the purpose for pointing out these facts is simply to present "a **sound scientific basis** for understanding biotic responses to the magnitudes and rates of climate change predicted for the future through using the **vast data resource** that we can exploit in fossil records."

Going on to do just that, Willis et al. focus on "intervals in time in the fossil record when atmospheric CO2 concentrations increased up to 1200 ppm, temperatures in mid- to high-latitudes increased by **greater than 4°C within 60 years**, and sea levels rose by up to 3 m higher than present," describing studies of past biotic responses that indicate "the scale and impact of the magnitude and rate of such climate changes on biodiversity." And what emerges from those studies, as they describe it, "is evidence for rapid community turnover, migrations, development of novel ecosystems and thresholds from one stable ecosystem state to another." And, most importantly in this regard, they report "there is **very little evidence for broad-scale extinctions** due to a warming world."

In concluding, the Norwegian, Swedish and UK researchers say that "based on such evidence we urge some **caution in assuming broad-scale extinctions** of species will occur due solely to climate changes of the magnitude and rate predicted for the next century," reiterating that "the fossil record indicates **remarkable biotic resilience** to wide amplitude fluctuations in climate."

#### No data supports mass extinction theories---their models are flawed

David Stockwell 11, Researcher at the San Diego Supercomputer Center, Ph.D. in Ecosystem Dynamics from the Australian National University, developed the Genetic Algorithm for Rule-set Production system making contributions modeling of invasive species, epidemiology of human diseases, the discovery of new species, and effects on species of climate change, April 21, 2011, “Errors of Global Warming Effects Modeling,” online: <http://landshape.org/enm/errors-of-global-warming-effects-modeling/>

Predictions of massive species extinctions due to AGW came into prominence with a January 2004 paper in Nature called Extinction Risk from Climate Change by Chris Thomas et al.. They made the following predictions:

“we predict, on the basis of mid-range climate-warming scenarios for 2050, that 15â€“37% of species in our sample of regions and taxa will be â€˜committed to extinctionâ€™.

Subsequently, three communications appeared in Nature in July 2004. Two raised technical problems, including one by the eminent ecologist Joan Roughgarden. Opinions raged from “Dangers of Crying Wolf over Risk of Extinctions” concerned with damage to conservationism by alarmism, through poorly written press releases by the scientists themselves, and Extinction risk [press] coverage is worth the inaccuracies stating “we believe the benefits of the wide release greatly outweighed the negative effects of errors in reporting”.

Among those believing gross scientific inaccuracies are not justified, and such attitudes diminish the standing of scientists, I was invited to a meeting of a multidisciplinary group of 19 scientists, including Dan Bodkin from UC Santa Barbara, mathematician Matt Sobel, Craig Loehle and others at the Copenhagen base of BjÃ¸rn Lomborg, author of The Skeptical Environmentalist. This resulted in Forecasting the Effects of Global Warming on Biodiversity published in 2007 BioScience. We were particularly concerned by the cavalier attitude to model validations in the Thomas paper, and the field in general:

Of the modeling papers we have reviewed, only a few were validated. Commonly, these papers simply correlate present distribution of species with climate variables, then replot the climate for the future from a climate model and, finally, use one-to-one mapping to replot the future distribution of the species, without any validation using independent data. Although some are clear about some of their assumptions (mainly equilibrium assumptions), readers who are not experts in modeling can easily misinterpret the results as valid and validated. For example, Hitz and Smith (2004) discuss many possible effects of global warming on the basis of a review of modeling papers, and in this kind of analysis the unvalidated assumptions of models would most likely be ignored.

The paper observed that few mass extinctions have been seen over recent rapid climate changes, suggesting something must be wrong with the models to get such high rates of extinctions. They speculated that species may survive in refugia, suitable habitats below the spatial scale of the models.

Another example of an unvalidated assumptions that could bias results in the direction of extinctions, was described in chapter 7 of my book Niche Modeling.

When climate change shifts a species’ niche over a landscape (dashed to solid circle) the response of that species can be described in three ways: dispersing to the new range (migration), local extirpation (intersection), or expansion (union). Given the probability of extinction is correlated with range size, there will either be no change, an increase (intersection), or decrease (union) in extinctions depending on the dispersal type. Thomas et al. failed to consider range expansion (union), a behavior that predominates in many groups. Consequently, the methodology was inherently biased towards extinctions.

One of the many errors in this work was a failure to evaluate the impact of such assumptions.

The prevailing view now, according to Stephen Williams, coauthor of the Thomas paper and Director for the Center for Tropical Biodiversity and Climate Change, and author of such classics as “Climate change in Australian tropical rainforests: an impending environmental catastrophe”, may be here.

Many unknowns remain in projecting extinctions, and the values provided in Thomas et al. (2004) should not be taken as precise predictions. … Despite these uncertainties, Thomas et al. (2004) believe that the consistent overall conclusions across analyses establish that anthropogenic climate warming at least ranks alongside other recognized threats to global biodiversity.

So how precise are the figures? Williams suggests we should just trust the beliefs of Thomas et al. — an approach referred to disparagingly in the forecasting literature as a judgmental forecast rather than a scientific forecast (Green & Armstrong 2007). These simple models gloss over numerous problems in validating extinction models, including the propensity of so-called extinct species quite often reappear. Usually they are small, hard to find and no-one is really looking for them.

# 2nc

### 1NC Shearmna

#### \*Overwhelming historical and sociological evidence proves individuals are incapable of avoiding the tragedy of the commons absent the use of strong centralized authority to compel their behavior---trying to persuade people to take responsibility for their practices causes them to harden their resistance

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 9-11

Our innate responses must be understood, for they have a profound influence on our ability to respond to the ecological crisis. Humans are born with psychological mechanisms that significantly influence behavior. Richard Dawkins points out that “if you wish to build a society in which individuals co-operate generously and unselfishly towards a common good you can expect little help from biological nature.”16 Thus, self-preservation and the need to procreate determine our quest for goods, status, and power. Humanity’s inability to think long term is related to the brain having hard wiring from our “paleolithic heritage.”17 Over hundreds of millennia we had to adapt to the conditions of a local environment. We had to think short term with an emotional commitment to the limited space around us and to a limited band of kinsmen. This is the Darwinian priority of short-term gain that bestowed longevity and more offspring upon a cooperative group of relatives and friends. As a result, we ignore any distant possibility not yet requiring examination. Global warming and loss of ecological services are seen only as distant possibilities. Families cannot comprehend responsibility beyond their grandchildren, and in Western societies the increasing number of couples without children tends to limit responsibility to their own lifetime. Indeed, Western society has moved increasingly to the delivery of short-term needs, solutions, and profit and a disregard of anything that is not self-centered. One of the authors, on asking medical colleagues how they feel about the effect of climate change on the future lives of their children, has found that a common response is “that’s their problem.”

The state of denial is relevant to the present discussion. When we are faced with a problem that extends beyond our local environment, or when it involves distant individuals and races, then it is not of relevance to our needs. The defensive mechanism of denial is activated. The psychology of denial has been studied in relation to human rights and to poverty and famine.18 Denial often relates to the enormity of the problem because one individual can do little about it. An individual can accept the scientific evidence of, say, climate change, but deny responsibility or blame others for creating the problem. The provision of more information may increase denial and lead to antagonism to the cause. Images of starving children are suppressed and requests for donations ignored. Denial is the basis of the language used to describe the unpalatable problems. In war, mass murder becomes “cleansing,” and with global warming the expected inundation and drowning of Pacific islanders by tidal surges are described by politicians and governments as a “human impact.”19

There is a further human factor that requires discussion: religion. Whilst it is possible that the environmental nihilism of President Bush may be due to denial, there is a much more worrying possibility, that his religious beliefs may be responsible. There are more than 200 Republican legislators in the U.S. government who are Christian fundamentalists, many of whom belong to sects that believe the future of the planet is irrelevant because it has no future.20 They are living in the “end times,” after which the son of God will return. Environmental destruction is to be welcomed, even hastened for it is a sign of the coming Apocalypse when they will enter heaven and the sinners will suffer eternal hellfire. One of these fundamentalists, Senator James Inhofe, chairs the powerful Senate Environment and Public Works Committee, and as a member of the Bush regime he has helped curtail many important environmental controls such as laws on clean air, clean water, endangered species, pollution limits for ozone, car emissions, coal-fired power stations, mercury, and many more. An analysis of these actions, in conjunction with the President’s unguarded statements such as his use of the word “crusade” for his actions in Muslim countries, suggests that decisions are not made on the basis of rational thought or science, but on the tenets of religious fundamentalism.

Our discussion of the problems of democracy in a warming world will therefore include the positive and negative role of religions. In an important scientific paper published in 1968 entitled “The Tragedy of the Commons,”21 Garrett Hardin discussed a number of problems for which he believed there was no technical solution. The problems in question required a change of values for their solution. He hypothesized that the population problem was such a “no-technical solution” problem. In the course of his argument he introduced the idea of the tragedy of the commons. The individual pursuit of self-interest will lead rational neoclassical economic agents to exploit a resource to extinction: as all such agents act in this way, a commons such as the ocean or the atmosphere will become degraded. Individual self-interest can lead to collective environmental disaster. We argue that liberal democracy is ecologically flawed as a social system because it leads to the tragedy of the commons. Fifty one percent of the people can vote to destroy a resource (or simply act to maintain unsustainable lifestyles), which 49 percent of the people wish to preserve. There is thus the potential for ecological destruction existing in the heart of democratic institutions. We will return to this point with specific examples. The fundamentals of our critique of liberal democracy and democracy itself are now discussed.22

### Impact Calc---2NC

#### This vastly outweighs the case---preserving existence by definition has to come before any other value---worsening environmental crisis turns all of their impacts, but embracing eco-authoritarianism unites humanity and solves all war

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 85-86

Our position differs from Wolff and other anarchists also insofar as we reject the principle of autonomy, the foundation belief of liberalism. It is the argument of this work that liberalism has essentially overdosed on freedom and liberty. It is true that freedom and liberty are important values, but such values are by no means fundamental or ultimate values. These values are far down the list of what we believe to be core values based upon an ecological philosophy of humanity: survival and the integrity of ecological systems. Without such values, values such as freedom and autonomy make no sense at all. If one is not living, one cannot be free. Indeed liberal freedom essentially presupposes the idea of a sustainable life for otherwise the only freedom that the liberal social world would have would be to perish in a polluted environment.

The issue of values calls into question the Western view of the world or perhaps more specifically the viewpoint that originates from Anglo Saxon development. It is significant that the “clash of civilizations” thinking espoused by Samuel Huntington, a precursor of the neoconservatives, has generated much debate and support. Huntington’s analysis involves potential conflict between “Western universalism, Muslim militancy and Chinese assertion.”18 The divisions are based on cultural inheritance. It is a world in which enemies are essential for peoples seeking identity and where the most severe conflicts lie at the points where the major civilizations of the world clash. Hopefully this viewpoint will be superseded, for humanity no longer has time for the indulgence of irrational hates. The important clash will not be of civilizations but of values. The fault line cuts across all civilizations. It is a clash of values between the conservatives and the consumers. The latter are well described in this book. They rule the world economically, and their thinking excludes true care for the future of the world. The conservatives at present are a powerless polyglot of scientists, environmentalists, farming and subsistence communities, and peoples of various religious faiths, including a minority of right-wing creationists who think that God wishes the world to be cared for. They recognize the environmental perils and place their banishment as the preeminent task of humanity. The fight for minds, not liberal democracy, will determine the future of the world’s population. If conservative thought prevails it may unite humanity in common cause and heal the cultural fault lines.

#### Comparative evidence---democracy guarantees extinction, authoritarianism has been the most ecologically beneficial force on earth

Mark Beeson 10, Professor and Head of the Department of Political Science & International Studies, University of Birmingham, 2010, “The coming of environmental authoritarianism,” Environmental Politics, Vol. 19, No. 2, DOI:10.1080/09644010903576918

While evidence about the implications of environmental degradation and even global warming are increasingly uncontroversial, their possible political consequences are more contentious. Although some of the preceding analysis is necessarily speculative and inferential, the experiences of China and Southeast Asia highlight issues of unambiguously global significance. The central question that emerges from this discussion is whether democracy can be sustained in the region – or anywhere else for that matter – given the unprecedented and unforgiving nature of the challenges we collectively face. Indeed, such is the urgency of the environmental crisis that some have argued – alarmingly persuasively – that ‘humanity will have to trade its liberty to live as it wishes in favour of a system where survival is paramount’ (Shearman and Smith 2007, p. 4). In such circumstances, forms of ‘good’ authoritarianism, in which environmentally unsustainable forms of behaviour are simply forbidden, may become not only justifiable, but essential for the survival of humanity in anything approaching a civilised form.

Such ideas are difficult to accept, especially for societies steeped in traditions of liberalism, individualism, freedom of choice and personal advancement. The US is, of course, such a country, where an entire national consciousness and way of life is predicated upon liberal values – values which some consider profoundly inimical to environmental sustainability (Ophuls 1997). It is also the country that has done most to contribute to global environmental problems like climate change, but which has until now seemed incapable of addressing them politically (Stephens 2007). In China, by contrast, an authoritarian regime has arguably done more to mitigate environmental problems than any other government on earth: without the one-child policy instigated in the 1970s, it is estimated that there would already be another 400 million Chinese (Dickie 2008) and China's environmental problems (and everyone else's) would be that much worse. Luckily for the world's non-Chinese population, China does not enjoy the same living standards as the US, and it is impossible to imagine that the vast majority of its citizens ever will. There are, it seems, fundamental, implacable constraints on the carrying capacity of the planet (Cohen 1995). The real tragedy about China's development is not the failure to democratise rapidly, but that at the very moment that human beings seem to have figured out how to generate economic development on a massive scale, it is becoming apparent that it cannot be sustained, at least not by 6 billion people living Western lifestyles, and certainly not by the 9–12 billion or so that some think will mark the extent of human expansion.6

#### There’s an invisible threshold for environmental collapse causing extinction---means err strongly toward authoritarian centralization and be highly skeptical of the benefits of democratic deliberation

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 6-8

The responsibilities and performance of the liberal democracies in these scenarios will be analyzed using our training in medicine, science, the law, philosophy, and social science. There are so many variables perpetrating today’s problems that reductionism cannot hope to offer analysis and solutions. Knowledge and understanding has to be global and multidisciplinary.

Each human life depends upon the integrated function of heart, lungs, brain, liver, kidneys, nerves, and muscles to constitute as an integrated ecological system that forms one human body. It is useful to regard the living earth in this way, as a complex integration of interdependent systems to form one planet.12 Just as we document and recognize environmental damage, we can assess the living earth like a patient as healthy or ill. The documentation of environmental damage indicates that the earth is ill. But worse, there is evidence that this patient is already in the intensive care unit, for several of its organs are failing. “Multiorgan failure” is written in the patient’s records. In such situations the outcome cannot be predicted. Unfortunately ecological and medical science cannot tell us whether the human body or the ecological system has reached the point of irretrievable collapse. In a paper published in the Journal Nature,13 studies on deforestation, endangered species, and eutrophication (when water is choked by the presence of too many nutrients) of lakes all showed resistance of these systems to gradual environmental damage, and then sudden collapse took place without warning. Collapse means demise of an ecological system that is of service to humanity.

Can we draw lessons from the human patient in the intensive care unit? The patient’s resuscitation is in the hands of a leader, the expert doctor in intensive care, and a team of nurses and scientists, which combines leadership with expert knowledge, decision making, speed, dedication, and compassion. The leader does not explore the public opinion polls to see what can be tolerated or is popular. He or she does not act to preserve their position at the next election and is not influenced by corporatism or the perceived state of the economy. There is one collective, unsullied goal, to recognize the emergency, to make a skilled diagnosis based upon scientific assessment and to restore health before the situation becomes irreversible. This physician uses the precautionary principle by taking action to support each organ to the full in case collapse is impending. Experience suggests that a human health crisis is best dealt with in this way. When the patient is the living earth, we will ask whether the institutions of liberal democracy and liberal capitalism measure up to the task. Viewed in the light of intensive care medical metaphor, we can also ask whether decision-making structures per se are the appropriate mechanisms when it is the biosphere itself that is in intensive care.

Is there a crisis? To answer this question we have analyzed several key indicators necessary for the survival of human civilization. In assessing the adequacy and sustainability of these indicators we have been mindful of the expected increase in the world’s population of 6 billion to at least 9 billion by 2050, a figure that has wide acceptance as a likely outcome. We have chosen to study supplies of fresh water for there is a finite volume of water that falls on the earth. Fresh water supplies are already inadequate for the basic needs of many sections of the world’s population. We have examined the sustainability of fish stocks as a measure of food supply, though we could have chosen cereals or other foods. The harvesting of fish is probably at its peak and many species of fish will not recover from overfishing. Recognizing that civilization cannot exist in its present form without ecological services, we have studied biodiversity. Large extinctions of species are already occurring, and this trend will accelerate with global warming. We have analyzed the data on climate change. Here there is evidence from many scientific sources that warming is occurring, and, unless greenhouse emissions are controlled, the future of living things that support our own survival is dim.

#### 1) Participation in decentralized politics is disempowering and exacerbates power differentials within communities---turns the whole case and means decisions are worse than they’d be with no deliberation at all

Tina Nabatchi 7, Assistant Professor of Public Administration and International Affairs and a Faculty Research Associate at the Program for the Advancement of Research on Conflict and Collaboration at Syracuse University, 2007, Deliberative Democracy: The Effects of Participation on Political Efficacy, p. 66-67

As noted earlier, one of the strongest arguments in favor of deliberative democracy is that such participation has intrinsic benefits for citizens. Not all agree with this assertion. Some scholars argue that the inverse is true, that participation can injure citizens, causing them to feel frustrated and to perceive personal inefficacy and powerlessness.

Real-life deliberation can fan emotions unproductively, can exacerbate rather than diminish power differentials among those deliberating, can make people feel frustrated with the system that made them deliberate, is ill-suited to many issues, and can lead to worse decisions than would have occurred if no deliberation had taken place (Hibbing and Theiss-Morse, 2002: 191).

Advocates of deliberative democracy argue that "[w]hen people come into contact with those who are different, they become better citizens, as indicated in their values and behavior" (Hibbing and Theiss-Morse, 2005: 232); however, to get the full benefits of associational involvement, the groups must be diverse. The logic here is straightforward - to experience the benefits of deliberation, one must hear a variety of viewpoints. Despite this argument, social psychology research indicates that it is difficult to get people involved in heterogeneous groups, and that when they do join such a group, they tend to interact with groups members who are similar to them (Hibbing and Theiss-Morse, 2005; Sunstein, 2003).

#### 2) The plan is a worse abuse of centralization---the overwhelming majority of people want to have less involvement in politics, not more---the aff paradoxically forces people into a deliberative system they don’t want

Tina Nabatchi 7, Assistant Professor of Public Administration and International Affairs and a Faculty Research Associate at the Program for the Advancement of Research on Conflict and Collaboration at Syracuse University, 2007, Deliberative Democracy: The Effects of Participation on Political Efficacy, p. 64-65

Not all scholars agree that deliberative democracy has such benefits; in fact, many see a distinct dark side to deliberative democracy. On a practical note, some scholars point to the high the transaction costs for participants in deliberative forums and suggest that these costs may outweigh the potential benefits of participation for citizens and policy makers (e.g., Huntington, 1975). For citizens, transaction costs may include time, money (e.g., lost wages or child care costs), and otherwise forgoing more preferable activities (Rydin and Pennington, 2000). Hibbing and Theiss-Morse (2002) articulate this issue well:

The last thing people want is to be more involved political decisionmaking; they do not want to provide much input to those who are assigned to make these decisions; and they would rather not know all the details of the decisionmaking process. Most people have strong feelings on few if any of the issues the government needs to address and would much prefer to spend their time in non-political pursuits.

Moreover, "securing broad-based, meaningful deliberation on contentious issues from ordinary citizens, most of whom have little desire to engage in public policy discussions, is next to impossible no matter how creative the contrived forum may be" (Hibbing and Theiss-Morse, 2005: 228). Following this argument, the lack of political participation among Americans may in fact not be a bellwether of democratic crisis, but rather a sign of widespread content and satisfaction with the status quo (Hibbing and Theiss-Morse, 2002; Macedo et ah, 2005). In fact some scholars argue that many of the problems of governance in the United States today stem from an excess of democracy (Huntington, 1975: 113).

#### No offense---remember the town halls over health care reform in summer 2009 that were dominated by Fox News-watching idiots screaming about death panels? The only people who show up to the aff’s movement/deliberation/whatever will be crazy conservatives who are more deeply motivated, or people who can afford to take time off work---ensures it fails to accurately represent the aff’s constituency

Tina Nabatchi 7, Assistant Professor of Public Administration and International Affairs and a Faculty Research Associate at the Program for the Advancement of Research on Conflict and Collaboration at Syracuse University, 2007, Deliberative Democracy: The Effects of Participation on Political Efficacy, p. 65-66

Additional transaction costs to government officials and decision makers concern their ability to broker policy compromises (e.g., Huntington, 1975). "Because citizen participants are not paid for their time, committees may be dominated by strongly partisan participants whose livelihood or values are strongly affected by the decisions being made, or by those who live comfortably enough to allow them to participate regularly" (Irvin and Siansbury, 2004: 59). Thus, given the potential limits of representation among citizen participants, there is little to guarantee that participants will be adequate proxies for the community. This is especially true in larger, more heterogeneous communities (Ostrom, 1990). Even if there is diversity among participants, this diversity can make it more difficult for political elites to make policy decisions that satisfy citizen demands (Huntington, 1975; Sunstein, 2003). As more citizens participate, more views and positions are brought to the table. Policy makers must not only sort through these views, but also take into account the preferences and demands of larger and more diverse groups of citizens (for practical and recent examples of this situation, see Margerurn and Whitehall, 2004; Throop and Purdom, 2006; USFS, 2002).

#### 2) Group failures---best research proves communicative, deliberative forums are most likely to move collective opinion further toward the preexisting views of the majority, cause irrational decisions made to placate the loudest participants, and dehumanizing violence against out-groups

Tina Nabatchi 7, Assistant Professor of Public Administration and International Affairs and a Faculty Research Associate at the Program for the Advancement of Research on Conflict and Collaboration at Syracuse University, 2007, Deliberative Democracy: The Effects of Participation on Political Efficacy, p. 67-69

Social psychology research on small groups highlights several potential pitfalls of deliberation (for an extensive review of this literature, see Mendelberg, 2002). In particular, research suggests three psychological limits to participation: risky shift, the Abilene paradox, and groupthink (e.g., Cooke and Kothari, 2002: 106-109; see also Torres, 2003: 72-73). Risky shift describes the phenomenon that group discussion can lead members to make riskier decisions than they would have made as individuals. The Abilene paradox reflects the experience of groups who make decisions and take actions that contradict their wants and interests in order to alleviate the anxieties and tensions of individual members. Groupthink refers to the replacement of independent critical thinking with irrational and dehumanizing actions against out-groups. As Sunstein (2003: 82) notes, "deliberative enclaves can be breeding grounds for both the development of unjustly suppressed views and for unjustified extremism, indeed fanaticism."

Research on small group deliberation supports these contentions. For example, communication has been found to enhance cooperation among individuals at the expense of that between groups (Insko, et al., 1993). When group interests are consistent with individual interests, communication can increase cooperation among groups; however, when group interests compete with individual interests, individual and in-group cooperation increase at the expense of cooperation across groups (Bornstein, 1992). Moreover, communication across groups of unequal size can make group differences more salient, and thus decrease cooperation (Bettencourt and Dorr, 1998; Miller and Davidson-Podgorny, 1987). Other research suggests that individuals who are perceived to have particular expertise in the subject under deliberation are more likely to be influential in the group's decision (Bottger, 1984; Kirchler and Davis, 1986; Ridgeway, 1981, 1987). Moreover, groups tend to use information that is already commonly shared, and focus less on distinctive information held by specific individuals that could arguably improve the outcome or decision (Gigone, and Hastie, 1993, 1997; Larson, et al, 1998; Stasser 1992, Stasser and Titus, 1985; Stasser, Taylor and Hanna, 1989; Wittenbaum. Hubbel, and Zuckerman, 1999).

The sum of these effects not only limits the potential benefits of participation, but also increases the potential for unwise decisions and polarization (e.g., Hibbing and Theiss-Morse, 2002; Huntington, 1975; Sunstein, 2003). The issue of group polarization is especially relevant:

Though standard, the term "group polarization" is somewhat misleading. It is not meant to suggest that group members will shift to the poles, nor does it refer to an increase in variance among groups, though this may be the ultimate result. Instead the term refers to a predictable shift within a group discussing a case or problem As the shift occurs, groups, and group members, move and coalesce, not toward the middle of antecedent dispositions, but toward a more extreme position in the direction indicated by those dispositions. The effect of deliberation is both to decrease variance among group members, as individual differences diminish, and also to produce convergence on a relatively more extreme point among predeliberation judgments (Sunstein, 2003: 83).

Indeed, research suggests that discussion tends to move collective opinion in the direction of the preexisting views of the majority (Moscovici and Zavalloni, 1969; Myers and Lamm, 1976; Schkade, Sunstein, and Kahneman, 2000). Moreover, when unanimity is the decision rule, the chances of deadlock increase (Hastie, Penrod, and Pennington, 1983), as does polarization (Kaplan and Miller, 1987; Mendelberg and Karpowitz, 2000).

#### This is a reason the aff collapses any response to climate change---deliberative forums will be filled with conservatives screaming about ClimateGate---means only authoritarianism solves

Halina Ward 11, director of The Foundation for Democracy and Sustainable Development, 1/11, “The Future of Democracy in the Face of Climate Change,” http://www.fdsd.org/wordpress/wp-content/uploads/Paper-Three-futures-of-SD-and-democracy.pdf

Some literature on the future of democracy takes a far less dim view of the future of expertise. At the other end of the spectrum, Shearman and Wayne Smith predict that democracy as we know it will fail to deliver solutions to the environmental crisis. They argue that elected representatives ought to be replaced by a ruling elite of eco-philosopher kings. Their vision of the future harks back to Plato’s; that “[t]here will be no end to the troubles of states, or of humanity itself, till philosophers become kings in this world”. 259

Shearman and Wayne Smith’s (anti-democratic) suggestion is that “\*g]overnment in the future will be based on… a supreme office of the biosphere” 260 comprising specially trained eco-philosophers, who will either rule themselves or advise an authoritarian government. They describe these eco-philosophers as “people of high intellect and moral virtue who are trained in a wide number of disciplines, ecology, the sciences, and philosophy (especially ethics) for the purpose of dealing with the crisis of civilisation”. 261 Shearman and Wayne Smith call for the creation of what they call a ‘Real University’, delivering scientific education which is immune to the influence of feelings, desires, interests, aspirations, values, economic forces and moral considerations. They highlight the Intergovernmental Panel on Climate Change as a potential forerunner.

The notion of value-free scientific endeavour would seem bizarre to those of Stephen Jay Gould’s school of thought, who believe that “[s]cience, since people must do it, is a socially embedded activity”. 262 And the value of scientific expertise within the realm of politics might be called into question on cognitive grounds. There is a strong basis in psychological studies for the argument that the voting public allow “bias, prejudice, and emotion to guide their decisions+”, rather than objective facts. 263

Roger Pielke Jr argues that four categories (highlighted in Box 5 below) express the roles that experts can play in decision-making. A healthy system of decision-making will benefit from the presence of all four kinds of advice. In particular, Pielke argues that when extra-scientific factors play a role in influencing expert advice, they can lead to ‘stealth issue advocacy’; a phenomenon which can undermine the authority and legitimacy of expert advice. Pure Scientist and Science Arbiter roles therefore make most sense when values are broadly shared and scientific uncertainty is manageable. And when there are value conflicts or science is contested, the Issue Advocate and Honest Broker of Policy Options roles are more appropriate. Pielke suggests that policy responses to climate change have neglected the complexity of the relationship between experts and decisionmakers: “better decisions will be more likely if we pay attention to the role of expertise in decision making and the different forms that it can take”. 264

Looking beyond the role of expertise in national democracies, former World Bank Vice-President Jean-François Rischard calls for expertise to occupy a prominent position within future global governance. He acknowledges that international governance structures will have to evolve to accommodate those global issues which extend beyond the territorially defined boundaries of states – such as forests which exist in one country, but which generate rainfall in surrounding countries. In his book, High Noon, 265 Rischard envisages an important role for experts in a series of twenty ’Global Issues Networks’ (GINs) designed to arrive at normative responses to the central global issues facing humanity. He sees precursors to the GIN approach in initiatives including the World Commission on Dams and the Forestry Alliance.

Rischard proposes that each Global Issues Network would consist of thirty experts; ten from NGOs, business and government respectively. And whilst this idea appears to favour expertise over public representation, Rischard goes on to explain that these expert networks would be invited to “represent all of us”. Here is a compromise system based on limited representation via expertise. Critics would argue that we should draw on expertise rather than be driven by it.

In contrast to Shearman and Wayne Smith’s or Rischard’s visions of an increasingly prominent role for scientific expertise in future democracies, there is also a body of thinking which predicts a (partial, at least) shift away from elitist technocratic science towards post-normal science, as a means of helping politicians and citizens to fully engage with the ideas of climate change and sustainability.

Groups such as the UK think-tank Newton’s Apple, 266 or the UK government’s Sciencewise Expert Resource Centre 267 recognise the gap in communication and understanding between scientific experts and democratic policy-makers. They work to bridge the gap, recognising that its existence is not only detrimental to both experts and policy-makers, but also to the public’s trust in each.

Blowers et al also suggest that an effort must be made to engage a wider range of stakeholders and the general public in the process of policy-making, rather than relying on technocratic positivist science as a way of informing policy. More confident relationships between science and society might result. 268 And given the current and future pressures of climate change, where “the facts are uncertain, values in dispute, stakes high and decisions urgent”, 269 it is not unreasonable to anticipate that new kinds – breeds – of post-normal science might evolve to cope with this uncertainty.

Blowers et al further argue that the post-normal emphasis on the ‘extended peer community’ 270 and the ‘democratization of science’ 271 make this mode of scientific reasoning a complement to deliberative democracy. As they suggest, deliberative democracy “must be inclusive and it must encourage unconstrained dialogue. Inclusiveness requires that insofar as possible all relevant viewpoints and values should be represented”. 272 Deliberation may even have become what Graham Smith dubs “a new orthodoxy within contemporary democratic theory”. 273

Climate change might hasten the spread of deliberative democracy; but it could equally counteract another imperative of climate-related policy: the (often urgent) need for a decision. For deliberation has no point of closure analogous to the vote in representative democracy. The future role of deliberation might therefore come to be seen simply as a means of exposing inherent value conflicts surrounding an issue, before a decision is taken. 274

Closely linked to Ravetz’s ‘extended peer community’ 275 is the notion of ‘the wisdom of crowds’. 276 In his book of the same name, James Surowiecki shows that certain kinds of decision involving quantitative rather than qualitative judgements and formed on the basis of aggregated information submitted by collections of individuals are often better that those that could be made by any single individual, however expert.

But members of crowds are all too easily influenced by the opinions of others, particularly the media. And this has significant implications for climate change and for the role of expertise in democratic decision-making on climate change. Media coverage of the ‘climategate’ email controversy (as to which see Paper One), for instance, has fuelled climate scepticism, as has the journalistic norm of presenting both sides of a story despite the overriding consensus regarding the severity, and anthropogenic nature, of climate change. Therefore, in the words of journalist and commentator Will Hutton, “an independent, diverse and inquiring press is also fundamental to collective wisdom”. 277 For a wide, crowd-based and democratic wisdom to emerge in the future, the media drivers of public opinion and engagement in decision-making would need to evolve too.

#### Yes your democracy---their precise recipe for “take democracy, add some K aff smoke and mirros, and stir” doesn’t matter---it’s impossible to reform or modify the foundational principle of democratic freedom to make it ecologically sustainable---only authoritarianism can ensure survival

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 3-4

However putting these subjective assessments aside, our analysis of the performance of democracy is diagnostic, using science and philosophy to define the ills. Society can then move forward to discuss the remedies. We will ask, what is the true record of democracy in addressing and preventing the major issues besetting humanity today, such as war, equity, and especially environmental damage? The most important question of our time is whether the democratic system is able to grasp and remedy the emerging ecological crisis facing the entire human race. What is the precise role of liberal democracy in causing this crisis? What is its performance in remediation during the past two or three decades of increasing scientific evidence of the crisis? To further this task, several critical environmental issues will be analyzed. Many failures are diagnosed and in each instance causation is identified as the modus operandi of liberal democracy. We therefore question whether democracy can be modified or reformed to address these problems before they have become irreversible. And if not, how can humanity be governed? We argue that humanity will have to trade its liberty to live as it wishes in favor of a system where survival is paramount. Perhaps this choice should not be put for democratic approval, or humanity will elect to live as it wishes.

#### Even if they completely abolished capitalism and consumption, the democratic impulse still makes ecological collapse inevitable

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 4

There is also another important point that will recur in our argument, but which requires emphasis now to avoid unnecessary confusion. In a book about democracy it is prima facie reasonable to expect a definition of “democracy”: “democracy is X.” Defenders of democracy have a problem in saying what “X” actually is. There are a multitude of definitions of democracy and to attempt to taxonomize now would be distracting from this overview. Further, we contend that democracy is conceptually incoherent, in some of its versions at least. Thus one of the problems of democracy is that there is no universally accepted definition that can be worked into an introductory chapter without immediately raising philosophical issues of contention. As we wish to develop an ecological critique of democracy in all its forms and a philosophical rejection of democracy per se, we are not disturbed by not being able to offer the reader an initial, simple definition. There are in our opinion no such satisfactory definitions, for all such definitions (e.g., government of the people, by the people, for the people) are even vaguer and less informative than the concept of democracy, as we show in chapter 5. For the moment we invite the reader to operate with her or his own intuitive understanding of democracy, and in chapter 5 we will criticize the standard accounts. In chapter 7 we will also reject liberalism as a philosophical position.

For the purposes of developing an ecological critique of democracy it is first necessary to understand the basis of the environmental crisis facing humanity. Almost all environmental writers blame the crisis on liberal capitalism. We argue that even if liberal capitalism ceased to exist there would still be the potential for an environmental crisis because of the destructive tendencies within the heart of democracy itself.

#### Deontology collapses into util

Schuck 8 – PROFESSOR OF LAW AT YALE --- Peter H. Schuck, the Simeon E. Baldwin Professor of Law at Yale University, Fall 2008, “The Morality of Immigration Policy,” San Diego Law Review, 45 San Diego L. Rev. 865, p. lexis

That said, I believe that any deontological claim in the realm of practical or applied ethics, the subject of this Article, must ultimately devolve for its proof on some set of consequentialist claims. n4 If the content of what is right-in-itself is, say, some notion of human flourishing, then in assessing a policy alternative in light of that norm, it becomes necessary at some point to defend that alternative in consequentialist terms by showing that certain conduct does, or does not, in fact conduce to human flourishing, however defined. If one seeks to justify a law permitting gay marriage, for example, as moral action on deontological grounds because it instantiates the value of, say, dignity or equality, then at some pivotal point in the argument one must show that the law's effects will in fact promote the dignity or equality of the couple - perhaps by giving them as much pleasure or self-respect as other couples receive from marriage. The deontological claim may constrain the kinds of consequences that are relevant to its justification, but once the claim is elaborated conceptually and normatively as deeply as the analysis permits, the claim's validity must ultimately rest on propositions about its actual effects in the real world. n5

[\*869] By adopting a consequentialist approach, I emphatically do not dismiss the importance of deontological approaches. Indeed, consequentialism would be less attractive without an underlying, perhaps deontological, conception of the good. n6 Deontological approaches help us to decide which ends we wish to pursue a priori. I do not, therefore, subscribe to consequentialism monistically. I simply argue that as a descriptive matter, consequentialism can shed much light on which among the competing ends we should choose. As Shelly Kagan notes, "the goodness of an act's consequences is at least one morally relevant factor in determining the moral status of that act," but the goodness of consequences requires a theory of the good to ground the comparison. n7

#### Maximizing all lives is the only way to affirm equality

**Cummiskey 90** – Professor of Philosophy, Bates (David, Kantian Consequentialism, Ethics 100.3, p 601-2, p 606, jstor, AG)

We must not obscure the issue by characterizing this type of case as the sacrifice of individuals for some abstract "social entity." It is not a question of some persons having to bear the cost for some elusive "overall social good." Instead, the question is whether some persons must bear the inescapable cost for the sake of other persons. Nozick, for example, argues that "to use a person in this way does not sufficiently respect and take account of the fact that he is a separate person, that his is the only life he has."30 Why, however, is this not equally true of all those that we do not save through our failure to act? By emphasizing solely the one who must bear the cost if we act, one fails to sufficiently respect and take account of the many other separate persons, each with only one life, who will bear the cost of our inaction. In such a situation, what would a conscientious Kantian agent, an agent motivated by the unconditional value of rational beings, choose? We have a duty to promote the conditions necessary for the existence of rational beings, but both choosing to act and choosing not to act will cost the life of a rational being. Since the basis of Kant's principle is "rational nature exists as an end-in-itself' (GMM, p. 429), the reasonable solution to such a dilemma involves promoting, insofar as one can, the conditions necessary for rational beings. If I sacrifice some for the sake of other rational beings, I do not use them arbitrarily and I do not deny the unconditional value of rational beings. **Persons** may **have "dignity**, an unconditional and incomparable value" that transcends any market value (GMM, p. 436), **but**, as rational beings, persons **also** have **a fundamental equality which dictates that some must** sometimes **give way for the sake of others.** The formula of the end-in-itself thus does not support the view that we may never force another to bear some cost in order to benefit others. If one focuses on the equal value of all rational beings, then equal consideration dictates that one sacrifice some to save many. [continues] According to Kant, the objective end of moral action is the existence of rational beings. Respect for rational beings requires that, in deciding what to do, one give appropriate practical consideration to the unconditional value of rational beings and to the conditional value of happiness. Since agent-centered constraints require a non-value-based rationale, the most natural interpretation of the demand that one give equal respect to all rational beings lead to a consequentialist normative theory. We have seen that there is no sound Kantian reason for abandoning this natural consequentialist interpretation. In particular, a consequentialist interpretation does not require sacrifices which a Kantian ought to consider unreasonable, and it does not involve doing evil so that good may come of it. It simply requires an uncompromising commitment to the equal value and equal claims of all rational beings and a recognition that, in the moral consideration of conduct, one's own subjective concerns do not have overriding importance.

#### Environmental decline makes the transition to authoritarianism inevitable---the only question is whether it can be effective

Mark Beeson 10, Professor and Head of the Department of Political Science & International Studies, University of Birmingham, 2010, “The coming of environmental authoritarianism,” Environmental Politics, Vol. 19, No. 2, DOI:10.1080/09644010903576918

The conclusions that emerge from the following discussion are necessarily impressionistic, speculative and rather dispiriting. The empirical evidence upon which such inferences depend is, by contrast, more and more compelling and unequivocal. There is little doubt that the natural environment everywhere is under profound, perhaps irredeemable stress. Parts of Southeast Asia and China are distinctive only in having already gone further than the most of the West in the extent of the degradation that has already occurred (see Jasparro and Taylor 2008). The only issue that remains in doubt is the nature of the response to this unfolding crisis. The extent of the problem, the seemingly implacable nature of the drivers of environmental decline, the limited capacity for action at the national level and the region's unimpressive record of cooperation and environmental management do not inspire confidence. Consequently, the prospects for an authoritarian response become more likely as the material base of existence becomes less capable of sustaining life, let alone the ‘good life’ upon which the legitimacy of democratic regimes hinges.

#### The environmental crisis will collapse democracy---embracing deliberation now causes delayed response that ensures extinction

David Shearman 7, Emeritus professor of medicine at Adelaide University, Secretary of Doctors for the Environment Australia, and an Independent Assessor on the IPCC; and Joseph Wayne Smith, lawyer and philosopher with a research interest in environmentalism, 2007, The Climate Change Challenge and the Failure of Democracy, p. 153-156

As we have said, it is not too difficult to see how this present regime of global capitalism and liberal democracy will end: It will end through ecological necessity. Nature will take humanity by the throat and confront it with the biospherical damage that it has done. It is most unlikely in our opinion that some form of spontaneous, unorganized democratic groundswell will awaken the masses to their fates before it is too late. Rather any such resistance to the system must come from an organized vanguard, unafraid to ultimately rule in the name of the common good. These new philosopher kings feature what we call the “authoritarian alternative” discussed earlier.

# 1nr

#### Biofuels lead to extinction

Tad Patzek 8, professor of Civil and Environmental Engineering at UC-Berkeley, 2008, “Can the Earth Deliver the Biomass-for-Fuel we Demand,” in Biofuels, Solar, and Wind as Renewable Energy Systems, ed. Pimentel, p. 36-44

Physics, chemistry and biology say clearly that there can be no sustained net mass output from any ecosystem for more than a few years. A young forest in a temperate climate grows fast in a clear-cut area, see Fig. 2.16, and transfers nutrients from soil to the young trees. The young trees grow very fast (there is a positive NPP). but the amount of mass accumulated in the forest is small. When a tree burns or dies some or most of its nutrients go back to the soil. When this tree is logged and hauled away, almost no nutrients are returned. After logging young trees a couple of times the forest soil becomes depleted, while the populations of insects and pathogens are well-established, and the forest productivity rapidly declines (Patzek and Pimemel. 2006). When the forest is allowed to grow long enough, its net ecosystem productivity becomes zero on the average.

Therefore, in order to export biomass (mostly water, but also carbon, oxygen, hydrogen and a plethora of nutrients) an ecosystem must import equivalent quantities of the chemical elements it lost, or decline irreversibly. Carbon comes from the atmospheric CO2 and water flows in as rain, rivers and irrigation from mined aquifers and lakes. The other nutrients, however, must be rapidly produced from ancient plant matter transformed into methane, coal, petroleum, phosphates.17 etc., as well as from earth minerals (muriate of potash, dolomites, etc.), - all irreversibly mined by humans. Therefore, to the extent that humans are no longer integrated with the ecosystems in which they live, they are doomed to extinction by exhausting all planetary stocks of minerals, soil and clean water. The question is not if, but how fast.

It seems that with the exponentially accelerating mining of global ecosystems for biomass, the time scale of our extinction is shrinking with each crop harvest. Compare this statement with the feverish proclamations of sustainable biomass and agrofuel production that flood us from the confused media outlets, peer-reviewed journals, and politicians.

2.5.3 Is There any Other Proof of NEP = 0?

I just gave you an abstract proof of no trash production in Earth's Kingdom, except for its dirty human slums.

Are there any other, more direct proofs, perhaps based on measurements? It turns out that there are two approaches that complement each other and lead to the same conclusions. The first approach is based on a top-down view of the Earth from a satellite and a mapping of the reflected infrared spectra into biomass growth. I will summarize this proof here. The second approach involves a direct counting of all crops, grass, and trees, and translating the weighed or otherwise measured biomass into net primary productivity of ecosystems. Both approaches yield very similar results.

2.5.4 Satellite Sensor-Based Estimates

Global ecosystem productivity can be estimated by combining remote sensing with a carbon cycle analysis. The US National Aeronautics and Space Administration (NASA) Earth Observing System (EOS) currently "produces a regular global estimate of gross primary productivity (GPP) and annual net primary productivity (NPP) of the entire terrestrial earth surface at 1-km spatial resolution, 150 million cells, each having GPP and NPP computed individually" (Running et al.. 2000). The MOD17A2/A3 User's Guide (Heinsch et al.. 2003) provides a description of the Gross and Net Primary Productivity estimation algorithms (MOD17A2/A3) designed for the MODIS1\* sensor.

The sample calculation results based on the MODI7A2/A3 algorithm are listed in Table 2.2. The NPPs for Asia Pacific. South America, and Europe, relative to North America, are shown in Fig. 2.17. The phenomenal net ecosystem productivity of Asia Pacific is 4.2 larger than that of North America. The South American ecosystems deliver 2.7 times more than their North American counterparts, and Europe just 0.85. It is no surprise then that the World Bank19, as well as agribusiness and logging companies - Archer Daniel Midlands (ADM). Bunge. Cargill. Monsanto. CFBC. Safbois. Sodefor. ITB. Trans-M. and many others - all have moved in force to plunder the most productive tropical regions of the world, see Fig. 2.18.

According 10 a MODIS-based calculation (Roberts and Wooster, 2007) of biomass burned in Africa in February and August 2004. prior to the fires shown here, the resulting carbon dioxide emissions were 120 and 160 million tonnes per month, respectively.

The final result of this global "end-game" of ecological destruction will be an unmitigated and lightning-fast collapse of ecosystems protecting a large portion of humanity.20

2.5.5 NPP in the US

The overall median values of net primary productivity may be converted to the higher heating value (HHV) of NPP in the US. see Fig. 2.19. In 2003. thus estimated net annual biomass production in the US was 5.3 Gt and its HHV was 90 EJ. One must be careful, however, because the underlying distributions of ecosystem productivity are different for each ecosystem and highly asymmetric. Therefore, lumping them together and using just one median value can lead to a substantial systematic error. For example, the lumped value of US NPP of 90 EJ. underestimates the overall 2003 estimate21 of 0.408 x 7444068 x 106 x 17 x 106 x 2.2 x 10"18 = 113EJ by some 20%.

To limit this error, one can perform a more detailed calculation based on the 16 classes of land cover listed in Table 2.2 in (Hum et al.. 2001). The MODIS-derived median NPPs are reported for most of these classes. The calculation inputs are shown in Table 2.3. Since the spatial set of land-cover classes cannot be easily mapped onto the administrative set of USDA classes of cropland, woodland, pastureland/rangeland. and forests. Hunt et al. (2001) provide an approximate linear mapping between these two sets, in the form of a 16x4 matrix of coefficients between 0 and 1.1 have lumped the land-cover classes somewhat differently (to be closer to USDA's classes), and the results are shown in Table 2.4 and Fig. 2.20.

The Cropland 4- Mosaic class here comprises die USDA's cropland, woodland, and some of the pasture classes. The Remote Vegetation class comprises some of the USDA's rangeland and pastureland classes. The USDA forest class is somewhat larger than here, as some of the smaller patches of forest, such as parks, etc.. are in the Mosaic class. Thus calculated 2003 US NPP is 118 EJ yr"1, 74 EJ yr"1 of above-ground (AG) plant construction and 44 EJ yr in root construction. In addition 12/74 = 17% of AG vegetation is in remote areas, not counting the remote forested areas. Note that my use of land-cover classes and their typical root-to-shoot ratios yields an overall result (118 EJ yr~') which is very similar to that derived by the Numerical Terradynamic Simulation Group {113 EJ yr-1).

Therefore, the DOE/USDA proposal to produce 130 billion gallons of ethanol from 1400 million tonnes of biomass (Perlack et a!., 2005) each year - and year-after-year-, would consume 32% of the remaining above-ground NPP in the US. see Fig. 2.20. if one assumes a 52% energy-efficiency of the conversion.~ At the current 26% overall efficiency of the corn-ethanol cycle (Patzek, 2006a), roughly 64% of all AG NPP in the US would have to be consumed to achieve this goal with zero harvest losses.23 To use more than half of all accessible above-ground plant growth in all forests, rangeland. pastureland and agriculture in the US to produce agrofuels would be a continental-scale ecologic and economic disaster of biblical proportions.24

2.6 Conclusions

I have shown that the Earth simply cannot produce the vast quantities of biomass we want to use to prolong our unsustainable lifestyles, while slowly committing suicide as a global human civilization.

In passing- I have noted that the "cellulosic biomass" refineries are very inefficient, currently impossible to scale, and incapable of ever catching up with the runaway need to feed one billion gasoline- and diesel-powered cars and trucks.

[NPP is net primary productivity – biomass produced by the earth annually]

#### Cellulose is the 1AC’s only hope of leading to action to forestall climate change

Patrick Mazza 8, Climate Solutions Research Director, 3/12/08, “Growing Sustainable Biofuels: Common Sense on Biofuels,” Climate Solutions, http://www.worldchanging.com/archives/007885.html

SOIL CARBON TO THE CENTER Creating farm and forestry systems with strong incentives for growing soil carbon could well be at the center of climate stabilization. NASA Goddard Institute researcher James Hansen, generally a forerunner for the climate science community, maintains that humanity reached the point of dangerous interference in the climate when cumulative carbon dioxide concentrations in the atmosphere reached 350 parts per million. The level is now 385 ppm.  On the current trajectory, polar ice and tropical rainforests could well be lost, setting up “point of no return” dynamics in which global warming begins to feed itself. Hansen says avoiding such catastrophic impacts will require reducing CO2 levels to 300-350 ppm. A rapid transition to non-fossil energy sources such as wind and sun is vital, **but not enough.** Humanity must now actively seek to soak CO2 out of the air, Hansen says. He points to improved farming and forestry practices as the most economical and feasible pathway to achieve this.  Thus it may well be that no groups have a more vital role to play in stabilizing the climate than farmers and foresters. But for them to play this role, it must be economically feasible. This underscores the critical need for systems that **pay farmers and foresters to grow soil carbon.** Synergies between growing biofuels and biocarbon could create multiple revenue streams that promote both. Part 1 noted University of Minnesota research on “carbon-negative biofuels” produced from mixed-species perennial grasses – The deeply rooted plants lock up **more carbon in soils than is released in burning the fuels.** Perennial grasses share the characteristic with certain species of fast-growing trees such as poplars that could provide bioenergy feedstocks. Farmers can also grow soil carbon by shifting annual crops including corn to conservation tillage that reduces soil disturbance. This can result is a 56 percent increase in soil carbon in the first decade with carbon stores growing over 25-50 years.