### 2NC A2: We Meet Production

#### Production restrictions are on the literal pumping and mining of energy resources- the restriction should limit the amount of natural gas that can be taken out of wells- they do not remove such a restriction

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Frances B., "Energy Dependence and the Role of Government," September 25-26, 2008, www.hillsdale.edu/images/userImages/rvanopstal/Page\_6542/Smith\_2\_Final.doc, p. 11

While today there are no production restrictions on oil and gas companies, in the earlier days, the Texas Railroad Commission acted as a cartel to control prices by limiting Texas’ oil and gas production. Founded in 1891, the Commission originally had jurisdiction over railroads, wharves, terminals, and express services. However, in 1917 until the 1970s, it regulated oil pipelines and oil and gas production. With a huge drop in oil prices in the 1930s, and with Texas as the country’s largest oil-producing state, the Commission began to restrict the volume of oil that could be produced. Up into the 1950s, it controlled an estimated 40 percent of U.S. crude oil production and about 50 percent of proven reserves. The Commission is considered to be the model for the Organization of the Petroleum Exporting Countries (OPEC).

### 2NC A2: We Meet- Financial Incentives

#### They don’t meet financial incentives- financial incentives are only direct financial transfers that are designed to attract investors for the production of energy

Czinkota et al, 9 **-** Associate Professor at the McDonough School of Business at Georgetown University (Michael, Fundamentals of International Business, p. 69 – google books)

Incentives offered by policymakers to facilitate foreign investments are mainly of three types: fiscal, financial, and nonfinancial. **Fiscal incentives** are specific tax measures designed to attract foreign investors. They typically consist of special depreciation allowances, tax credits or rebates, special deductions for capital expenditures, tax holidays, and the reduction of tax burdens. **Financial incentives** offer special funding for the investor by providing, for example, land or buildings, loans, and loan guarantees. **Nonfinancial incentives** include guaranteed government purchases; special protection from competition through tariffs, import quotas, and local content requirements, and investments in infrastructure facilities.

#### Export restrictions are not financial disincentives- removing them is not topical

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Gabrielle, in GLOBAL CHALLENGES AT THE INTERSECTION OF TRADE, ENERGY AND THE ENVIRONMENT, ed. Pauwelyn, 2010, Centre for Trade and Economic Integration, p. 36]

It has also been argued that a dual-pricing scheme can only be maintained through¶ export restrictions, and there have been a number of attempts to treat export¶ restrictions resulting in lower domestic prices as a subsidy. However, one panel has¶ decided that export restrictions are not themselves financial contributions and hence¶ cannot be treated as subsidies (*US -- Export Restriction*). The logic here is to invoke in¶ their place export restrictions’ disciplines, such as Article XI, discussed above.¶

#### And, their interp links to all our offense- defining incentives broadly creates conceptual confusion and makes ANY ACTION an incentive- the aff blurs the line- market responses to better trade conditions are not incentives

Grant, 02

- professor of political science at Duke University (Ruth, “THE ETHICS OF INCENTIVES: HISTORICALORIGINS AND CONTEMPORARY UNDERSTANDINGS,” Economics and Philosophy, 18 (2002) 111, proquest)

This history also allows us to define more clearly what ` incentives' means. Currently, the term is used so broadly that it is often almost synonymous with motivation altogether. But, despite its current quite general usage, a distinctive specific meaning of the term remains, one that is easier to identify after taking this historical journey. The specific meaning can be illustrated by identifying those situations where only the word `incentive' will do. Very often, the term is now used where another would do equally well. For example, `incentive' is sometimes used as if it were a synonym for `reward', but they do not mean exactly the same thing. A reward or punishment, unlike an incentive or disincentive, is understood to be merited or deserved. Offering a reward may serve as a motivator or incentive to action, but the two are quite distinct in principle. People can win awards, for example, without even knowing in advance that they were eligible. They deserve the reward, and there is no element of motivation involved at all. Similarly, `incentive' is sometimes used as if it were synonymous with `motivation' generally speaking. But there are several important sorts of motivation that are not suggested by the term. When we speak in this way, we implicitly deny the phenomena of habitual behavior, or action motivated by a sense of responsibility or of the reasonableness of a course of action (with reasonableness here understood as something other than individual utility maximization), or the way in which a role model or ideal can serve as motivator. Action which is initiated by the individual or understood as internally motivated is not really compre-hended in the concept of motivation as incentive. Incentives are external prompts to which the individual responds. The use of `incentives' to speak of market forces is also problematic, though it is easy to see the logic of this development within the language of economics. If one company lowers the price of its product, we might readily say that other companies now have an incentive to lower theirs. But we would not say that the first company offered all other companies an incentive to lower their prices.55 Market forces are not conscious and intentional, and their rationale is intrinsic to the economic process itself. We might just as well say in this situation that the first company's lower price is a good reason for other companies to lower theirs given that they need to remain competitive. The term `incentive' says nothing that `reason' cannot say as well in this case. A similar logic applies to speaking of loan conditions as incentives. The International Monetary Fund may make a loan to a nation only on condition that it alter its inflationary policies. If the reason for the condition is intrinsic to the IMF's own financial aims, `incentive' may be a misnomer. The situation is like that of requiring a certain training as a condition for the practice of medicine; we would be unlikely to refer to this as an `incentive' to go to medical school for people who wish to become doctors.56 When the IMF is criticized for using financial incentives unethically to control the internal policies of borrowing nations, it is because the critics suspect that its real purposes are political rather than strictly limited to the legitimate concern to secure the financial health of the Fund. The distinction between market forces and incentives can be illustrated further by considering the difference between wages as compensation and incentives as bonuses in employment. Compensation means `rendering equal', a `recompense or equivalent', `payment for value received or service rendered', or something which `makes up for a loss' ± as in the term `unemployment compensation'. Compensation equalizes or redresses a balance, and so, to speak of `fair compensation' is entirely sensible. But to speak of a `fair incentive' is not. An incentive is a bonus, which is defined as something more than usually expected, that is, something that exceeds normal compensation. It is an amount intentionally added to the amount that would be set by the automatic and unintentional forces of the market. An incentive is also a motive or incitement to action, and so an economic incentive offered to an employee is a bonus designed to motivate the employee to produce beyond the usual expectation. It should be obvious then, that compensa- tion and incentives are by no means identical. The per diem received for jury service, for example, is a clear case of compensation which is not an incentive in any sense. It is not difficult to see how it might have happened that the boundaries were blurred between the specific conception of incentives and conceptions of the automatic price and wage-setting forces of the market. Both can be subsumed under very general notions of thefactors that influence our choices or motivate action, and `incentives' carries this general meaning as well. Nonetheless, the blurring of that boundary creates a great deal of confusion. Incentives, in fact, are understood better in contradistinction to market forces than as identical to them. It is only by maintaining a clear view of their distinctive character that the ethical and political dimensions of their use are brought to light. Moreover, conceptual clarity and historical understanding go hand in hand in this case. It should no longer be surprising to find that the term `incentives' is not used by Adam Smith in first describing the operation of the market, but appears instead at a time when the market seemed inadequate in certain respects to the demands presented by changing economic circumstances. Other eighteenth and nineteenth- century ideas, often taken as simple precursors of contemporary analyses of incentives, can now be seen in their distinctive character as well. For example, Hume and Madison offer an analysis of institutional design which differs significantly from `institutional incentives', though the two are often confused. These thinkers were concerned with preventing abuses of power. They sought to tie interest to duty through institutional mechanisms to thwart destructive, self-serving passions and to securethe public good. Contemporary institutional analyses, by contrast, proceed without the vocabulary of duty or public good and without the exclusively preventive aim. Institutional incentives are viewed as a means of harnessing individual interests in pursuit of positive goals.57 Similarly, early utilitariandiscussions, Bentham's in particular, differ markedly from twentieth century discussions of incentives despite what might appear to be a shared interest in problems of social control. Again, Bentham is interested entirely in prevention of abuses or infractions of the rules. The rationale for his panopticon is based on the observation that prevention of infractions depends upon a combination of the severity of punishment and the likelihood of detection.58 If the latter could be increased to one hundred per cent, through constant super- vision and inspection, punishment would become virtually unnecessary.This is a logic that has nothing whatever to do with the logic of incentives as a means of motivating positive choices or of encouraging adaptive behavior.

#### Even if they win they’re a financial incentive, it is *not for production*- the incentive is to increase our exports of LNG to Japan. It would be just as logical for the result of the plan to be that US producers decrease their domestic sales of natural gas and dump it into the Japanese market, since there is a glut of gas in the US.

#### Incentives must be directly tied to energy production—their interpretation unlimits—allows incentives for any economic activity tangentially related to energy production

Tacoa-Vielma, counsellor – Trade in Services Division @ WTO, ‘3

(Jasmin, “ENERGY AND ENVIRONMENTAL SERVICES: Negotiating Objectives and Development Priorities,” unctad.org/en/docs/ditctncd20033\_en.pdf)

Another perceived deficiency relates to the fact that a variety of other services that intervene in the energy value-added chain (from production to sale to final consumers) are found in the whole range of services sectors on the list, e.g. research and development, engineering, construction, management consultancy, environmental, financial and distribution services. These services could be termed "energy-related services" because of their relevance, but not exclusivity, to the energy industry. It has been argued that such dispersion of “energy-related services” makes it difficult to determine existing commitments and to negotiate the totality of the services necessary for the energy industry; that would make sense from an economic viewpoint. However, this situation is not unique to the energy industry, as most economic activities or industries require a variety of services inputs that in many cases are designed or adapted for different end-uses. For example, there are engineering, financial or construction services especially tailored for the energy industry as well as for the telecom industry.4 Having an all-encompassing definition of the energy services sector would certainly facilitate considering the totality of services involved in the industry; however, that should not be equated to a guarantee of complete coverage by GATS commitments.

#### Allows small affs unrelated to the core of the topic

Selivanova, PhD international law – University of Berne, trade expert – Energy Charter Secretariat, Brussels, ‘7

(Yulia, “The WTO and Energy,” <http://ictsd.org/i/publications/129716/>)

There are several problems that are associated with definition of energy services. Firstly, some energy products can be considered either a good or a service (e.g. electricity).70 Furthermore, many services that form part of the energy production chain are in fact not core energy services. Examples of such services are construction, engineering, consulting, etc. There were discussions of merits to distinguish between core and non-core services.71 An activity would be considered as “core” if the service was an essential part of the chain of supply of the sector, i.e. without that service the sector would not be able to function (Tacoa-Vielma, 2003). Non-core services simply support the chain and are closely connected to the process. The problem with this distinction is where to draw the line between the two categories. What makes service an “essential” part of the energy production chain?

#### No overlimiting offense—energy financial incentives include a host of mechanisms—we just limit out policy incentives that encourage energy tech

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(Rustin P., 27 J. Land Resources & Envtl. L. 345)

A. Available Incentives for Implementing Clean Renewables

Many studies have considered the benefits and achieved results of the available renewable energy financial incentives. While studies agree that these incentives are effectively promoting business integration of renewable energies, it is questionable whether the incentives encourage private adoption of renewable energy technology. n55 The incentives for implementing clean renewable power generation fall into two main categories: financial incentives and policy [\*354] incentives. These incentives can be provided at federal, state, and municipal levels.

A laundry list of financial incentives include: corporate equipment rebates, energy efficient mortgages, accelerated corporate depreciation schedules, corporate tax credits, corporate production incentives, corporate and personal tax exemptions, personal tax credits, federal grant programs, USDA renewable energy systems and energy efficiency improvements loan programs, green power purchasing or aggregation, corporate tax incentive, industry recruitment incentives, property tax incentives, state public benefit funds, and state sales tax incentives.

### 2NC AT Reasonability

#### Reasonability is impossible – it’s arbitrary and undermines research and preparation

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(Evan, “Defining Engagement,” Journal of International Affairs, Vol. 54, Iss. 2)

In matters of national security, establishing a clear definition of terms is a precondition for effective policymaking. Decisionmakers who invoke critical terms in an erratic, ad hoc fashion risk alienating their constituencies. They also risk exacerbating misperceptions and hostility among those the policies target. Scholars who commit the same error undercut their ability to conduct valuable empirical research. Hence, if scholars and policymakers fail rigorously to define "engagement," they undermine the ability to build an effective foreign policy.

#### 7. Counter interp – NG production includes extraction and liquefaction

IEA Energy Statistics Division ‘5 (International Enegy Administration, “Energy Statistics Manual,” 2005, <http://www.iea.org/stats/docs/statistics_manual.pdf>)

The production of primary fossil fuels is usually measured close to the point of extraction from the reserves. The quantities produced should be those measured when the fuels are in a marketable state. Any quantities which are not saved for use or sale should be excluded from the production figure. For example, some of the gases extracted from a gas or oil field may be returned to the field to maintain pressure (reinjected gas), flared or released into the atmosphere (vented gas). The remaining gases may then be processed to remove some of the heavier gases (natural gas liquids). The production of marketable natural gas should be measured or calculated only after the reinjected gas, waste gas and the natural gas liquids have been removed (see chapter on natural gas).

#### 8. Precision – EIA agrees

EIA ‘6 (Energy Information Administration Glossary of Terms, 2006, http://www.eia.gov/tools/glossary/index.cfm?id=D)

Dry natural gas production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include (1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and (2) gas vented and flared. Processing losses include (1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and (2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

#### 9. Topic education – natural gas production is at an all-time high, which makes reading straight-up increase production affs impossible. The only topical gas affs that have any unique advantages are ones like export – it’s the only way to ensure natural gas education

Williamson, Well Servicing Magazine, ’12 (Brandon, Well Servicing is about natural gas wells, not servicing people/things well, whatever that means, “Exporting America’s Natural Gas,” May/June 2012, <http://wellservicingmagazine.com/exporting-america%E2%80%99s-natural-gas>)

Domestic natural gas production in America is at record levels. According to Andrew Ware, 32 of the 50 states in America produce natural gas. This saturated market is one of many factors contributing to low natural gas prices. With prices at current levels, there is little incentive to produce natural gas.The resulting climate is one in which there are massive amounts of natural gas in America with few profitable markets to sell to. This imbalance is compounded by the closed-market loop in the American natural gas market — importing is allowed but not exporting.

#### Tech advances can’t solve– it doesn’t address the main cause: over consumption; increases in tech only exacerbates the rich/poor gap risking conflict.

Fauset ‘8

Claire Fauset, researcher. “Techno-fixes: a critical guide to climate change technologies”. Corporate Watch Report. http://www.corporatewatch.org/?lid=3126

As the climate crisis looms, choices about solutions become ever more important. However, the debate on the future is surrounded by hype and vested interests. This briefing seeks to assess the large-scale technologies that corporations and government are putting forward as solutions to climate change. It explains why they are unlikely to prevent climate catastrophe, looks at where the decisions about our strategies for survival are being made, and goes in search of more realistic and socially just solutions. This report includes an overview of the issues surrounding each of the key technologies that are being held up as solutions to climate change, and provides a joined-up analysis and a framework for comparisons. Making the right decisions about technology is vital to avoiding devastating climate change. But many of the technologies being put forward as solutions to this crisis simply won’t work, will worsen the situation, cause significant environmental destruction or are not going to be available with a short enough timeframe to help us. Even combined, they would fail to address the whole problem - for example, there can be no big technofix for deforestation, which currently causes around a fifth of all greenhouse gas emissions. Technofixes are very appealing. They appeal to leaders who want huge projects to put their name to. They appeal to governments in short electoral cycles who don’t want to have to face hard choices of changing the direction of development from economic growth to social change. Technofixes appeal to corporations which expect to capture new markets with intellectual property rights and emissions trading. They appeal to advertising-led media obsessed with the next big thing, but too shallow to follow the science. They appeal to a rich-world population trained as consumers of hi-tech gadgets. They appeal to (carbon) accountants: technological emissions reductions are neatly quantifiable, if you write the sum properly. Technofixes appeal, in short, to the powerful, because they offer an op- portunity to maintain power and privilege. But why are they the wrong answers? Surely technology is important? The discourse of ‘magic bul- lets’ completely ignores the complexities of different situations and needs, and the widely distributed and poorly measured sources of climate change. In short, it isn’t addressing the problem. If we are to have socially just and sustainable solutions to climate change, then we have to all look very criti- cally at how our social and economic systems are failing. If the approach to this problem is primarily technological it has the potential to deepen inequalities between rich and poor as the rich are able to afford access to proprietary technology which enables them to maintain high standards of living while the poor suffer the worst effects of climate change on top of continuing social injustice. This is a recipe for conflict. Climate change is already happening. Already the air and oceans are warming, growing seasons are shifting, and ice and snow cover have decreased across the world. Extreme weather events such as floods, cyclones and droughts are increasing across the world.1 The World Health Organization estimates that 150,000 people died in 2000 due to the impacts of climate change.2 It’s going to get worse. Business as usual means that a temperature rise of around four degrees centigrade above 1990-2000 levels can be expected this century - possibly as much as six degrees..3 Many scientists consider that limiting temperature increases to a maximum of two degrees above pre-industrial levels is necessary if we are to avoid devastating climate change.4 The Intergovernmental Panel on Climate Change (IPCC), which represents the international scientific consensus on the issue, suggests that to have a reasonable chance of limiting warming to two degrees would require a peak in global greenhouse gas emissions by 2015 at the latest, with emissions falling by 50-80% below 2000 levels by 2050 and in particular will need industrialized countries to reduce their emissions by 25% to 40% before 2020, and by 80% to 95% before 2050.5 This represents a reduction in carbon dioxide emissions of about 5% per year, every year. *Who owns the technology?* Not just the hardware (power stations, pipelines) but the patents and other intellectual property. Some technologies in particular – second-generation agrofuels, hydrogen, nano-solar – are likely to be dominated by a few companies owning fundamental patents and charging royalties for their use. How will this affect deployment if these technologies can be made to work? With over four thousand patents on ‘clean technologies’ granted in 2006 in the USA alone,9 is it legitimate that possible solutions to climate change be held to ransom? *Who controls the technology?* This is a question of control, and of democracy. If supplies are short, who gets them – those in need, or those who can pay? Beyond this, who should decide what the solutions to climate change are and which technologies represent the best way forward? How can these decisions be made democratically with participation from the people who will be most af- fected? Governments make decisions on which technologies to support through public funding. But much more money comes from the private sector, which invests based on potential for profit, not social benefit. And even then, govern- ment money often follows the corporate lead – corporations are widely represented on the Research Councils and other bodies which make public funding decisions. *Who gains from the technology? Who loses?* Is the balance of winners and losers just or equitable? For example, agrofuels benefit the companies that grow and trade them. They may keep fuel prices down for vehicle owners, but push up food prices for everyone, and cause land conflicts between plantations and small farmers. New technologies can also improve social justice: for example deployment of small-scale hydroelectric systems can make reliable, cheap, controllable electricity supplies available to people in areas without a centralised grid. In most discourse on climate mitigation, economic efficiency is prized above social justice. But promoting new tech- nologies which do not help social justice will entrench and exacerbate existing problems, making them all the harder to deal with in the future. Preferring those new technologies which intrinsically promote equality, democratic control and accessibility has wider benefits than the simple reduction of greenhouse gas emissions. In relation to climate change, emissions have largely been the fault of the over-consuming rich, while the impacts are being felt most strongly by people in poorer countries. Climate change itself is thus a social justice issue and it is dou- bly unjust to promote solutions which would worsen the position of those who are already suffering. Inter-generational justice must also be considered - does a technology impose costs on future generations without conferring any benefits? For example, nuclear waste must be stored indefinitely, long after power stations are closed down; captured and stored carbon dioxide would have to be monitored for centuries after cheap fossil-fuel reserves have been exhausted. *How sustainable is the technology?* Greenhouse gas emissions reductions alone are not sufficient evidence of a technology’s benefits. Does the technol- ogy deplete other resources, for example by consumption of rare minerals or through its impact on natural ecosys- tems and biodiversity? Does it have other pollution impacts, such as hazardous waste? Does it encourage or rely on other damaging activities? For example, carbon capture and storage relies on coal mining and encourages greater oil extraction when used for ‘enhanced oil recovery’. Can the technology continue to be used in the long term without increasing negative impacts? *What scale of operations can the technology reach?* If a technology is being presented as the answer to a problem, eg a new source of vehicle fuel, it needs to be avail- able at a sufficient scale. So, for example, waste cooking oil is a sustainable source of vehicle fuel, but only available in very small quantities. First-generation agrofuels, even if social justice and sustainability issues could be overcome, could never supply current world vehicle fuel use. Scalability does not rule out a technology as such, but it is a crucial means of detecting hype around wrong answers which are promoted to allow continuation of business as usual. *When will it be available*? Climate science shows that emissions need to start falling within the next few years, and fall massively in 20 to 30 years. Technologies that are unlikely to be available at an effective scale within that timeframe are not helpful – re- sources should be diverted from these to more immediately available systems – and to ones which can be proven to work. The focus of governments and corporations on emissions targets for 2050 can also be viewed as part of a distraction strategy. 2050 is conveniently distant – a target for 2050 allows time to continue business-as-usual in the short term in the expectation of future technological breakthroughs. Tough targets for 2050 are not tough at all. Where are the techno-fix plans for a peak in global emissions by 2015? Ignoring the scale and source of the problem Focusing on technological solutions ignores how the problem of climate change is caused, why it continues to worsen and how much needs to be done to stop it. Climate change is the result of over-consumption of fossil fuels and of forest and land resources; about one third of emissions currently come from deforestation and agriculture.10 This consumption continues to grow in line with economic growth. Technological improvements will not tackle overconsumption or growth in demand; this requires radical changes to economic systems. Without such changes, any technology-based emissions reductions will eventually be eaten up by continued rising demand for energy and consumer goods – efficiency gains will be converted into greater consumption not long-term reduced emissions. Technologies which encourage consumers to maintain high energy use and fossil fuel dependency, such as carbon capture and storage, fail to address unsustainable consumption levels which are the basis of rich country economies and the cause of both climate change and other critical sustainability crises such as declining soil fertility and fresh water supplies. Even the IPCC now suggests that 85% cuts in global greenhouse gas emissions are needed by 2050,11 other sources suggest as much as 90% reductions for the UK by 2030.12 Technology simply cannot deliver these levels of reduction without accompanying changes to demand, which requires economic and social transformation. Techno-fixation has masked the incompatibility of solving climate change with unlimited economic growth. A rational approach to a certain problem and a set of uncertain solutions might be to say that consumption should be limited to sustainable levels from now, with the possibility of increasing in future when new technologies come on stream. In- stead the approach taken has been to continue consuming to the same destructive levels in the expectation that new technologies will come on stream. The persistent claim that a solution is just around the corner has allowed politicians and corporations to cling to the mantra that tackling climate change will not impact on economic growth. In 2005, in his address to the World Economic Forum, Tony Blair said: ‘If we put forward, as a solution to climate change, some- thing that would impact on economic growth, it matters not how justified it is, it will simply not be agreed to [emphasis added]’.13 While this view may be slowly changing, it has delayed real action for years. Climate change is not the only crisis currently facing the planet. Peak oil (the point at which demand for oil outstrips available supply) is likely to become a major issue within the coming decade; while competition for land and water, de- forestation and destruction of ecosystems, soil fertility depletion and collapse of fisheries are already posing increas- ing problems for food supply and survival in many parts of the world. That’s on top of the perpetual issues of equity and social justice. Technological solutions to climate change generally fail to address most of these issues, except where they may reduce oil use. Yet even without climate change, this systemic environmental and social crisis threatens society, and demands deeper solutions than new technology alone can provide. Scarcity of investment Governments spend a limited amount of money on mitigating climate change. Investment in energy R&D (research and development) increased massively in the 1970s as a result of the 1973 OPEC oil embargo, but in the last 30 years R&D investment as a proportion of GDP has continually declined to the point where it is roughly comparable to pre-1973 levels.14 Where this investment goes is a major issue. While it makes sense to research many options for mitigating climate change, time and resources are limited. In this context, it is worth looking at the distinction between inventions, or technological breakthroughs, and engineer- ing improvements. Some proposed technologies rely on things which simply don’t exist yet; synthetic microbes which ‘eat’ carbon dioxide and excrete hydrocarbons; a safe and efficient system for distributing and using hydrogen vehicle fuel; nuclear fusion power. This is not in itself an argument against any investment in these technological possibilities, but it is an argu- ment against reliance on such future technological breakthroughs. Claims that something which doesn’t exist yet will solve a known problem, and that it should take most of the available resources, should be viewed simply as a stalling tactic on the part of vested interests. Other technologies exist, but are benefiting from ongoing improvement; the efficiency and cost-effectiveness of pho- tovoltaic solar panels; devices for exploiting wave and tidal power; energy-efficient electrical appliances. These areas can be relied on to improve, though the timescale may be unpredictable. This is where technology investment needs to focus. At present, it is the technologies that allow business-as-usual to continue that are receiving the lion’s share of invest- ment, regardless of either potential benefit or feasibility. Investment in agrofuels or CCS means less investment in wave power, in decentralised energy or in economic and social changes to limit the need for high energy consumption. The US government is investing $179m (£89m) in agrofuels in 2008.15 €10bn (£7.9bn) is being spent on an interna- tional experimental nuclear fusion reactor in France.16 Diverting this money away from more immediately practical solutions makes the target of peaking greenhouse gas emissions by 2015 less achievable. It both delays the transition to a low-carbon economy and endangers the future by making devastating climate change more likely. Transition – the period of change between the high-emitting societies of today and a distant sustainable future, is a hot topic. But while this change must come, the ‘transition’ discourse coming from governments and corporations is frequently a cover for arguments that would permit use of technologies in the short term which are known to be unjustifi- able in the long term – geoengineering, first generation agrofuels, ‘carbon-capture ready’ coal fired power stations are argued to be necessary now. But why? Largely to prevent serious change to the rich world’s over-consuming lifestyles. The discourse of transition delays the inevitable. When is the real transition to a low-emission, more equitable society even going to start? How long is it going to last? Technological change is part of the solution. But only part. It is useful only as long as it is compatible with, and prefer- ably supports, other changes to the way society works. Even though these changes are not the focus of this report, a brief summary follows. Economic change Current government approaches to climate change consist largely of tinkering with policy and expecting the market to deliver emissions reductions. But the market doesn’t want to deliver emissions reductions, it wants to deliver profits. Carbon prices are an arbitrary figure unrelated to the real social and environmental cost of emissions. Meanwhile, poli- cies which may ‘harm’ the economy have been shied away from. This green capitalist approach is asking the wrong question. Instead of asking how to continue to grow the economy while living on the limited resources left on this planet, it should be asking – why is economic growth seen as more important than survival? What is growth and do we need it? The current global economic system is based on the assumption of indefinite growth. While ongoing growth in some areas is possible without more consumption of natural resources and emissions of greenhouse gases, this covers only relatively small sectors of the economy – some services and purely information-based products. Growth of the whole global economy means consumption of an ever-increasing amount of goods, using an ever-increasing quantity of en- ergy, mineral, agricultural and forest resources. Even if energy intensity per unit of economic activity can be reduced, ongoing growth eats up the improvement and overall energy consumption still rises. Renewable energy alone cannot decouple consumption from climate change.

#### North-South disparity causes global nuclear wars

Goldstein ‘10

Joshua S. Goldstein, Professor Emeritus, School of International Service, American University. 2010. “Changing World Order - Engaging the South”. http://wps.ablongman.com/long\_goldstein\_ir\_7/35/8977/2298242.cw/index.html

In the last chapter’s “Changing World Order” section, there was mention of how a smallpox epidemic launched from the global South and aimed at the global North would most likely return to do most damage in the South. This quality of global rebound operates from North to South as well. Actions the North takes in the South, such as arming Islamic extremists to fight Soviet occupiers in Afghanistan in the 1980s, come back to haunt the North later—as when Afghan-based Islamic extremists attacked the United States. The problem of unintended consequences of distant actions has been called “blowback.”\* September 2001 demonstrated the increased interdependence of the global North and South. The extreme disparities of wealth and power between North and South create conflicts and resentments that can reach out of the South to punish the privileged citizens of the North who had been oblivious to the problems of poor countries. In the world order of the 1990s, disparities sharpened and prosperity cut unevenly with both winners and losers. The continent of Africa, along with zones of festering war and poverty in countries like Afghanistan, were losers in the 1990s. To let a continent or even a country descend into despair may no longer be practical in the era of terrorism. Their fate ultimately may be the fate of the North that ignores them. This is the century in which desperate African states will be able to press their demands with weapons of mass destruction, and in which fanatics may destroy cities with nuclear weapons. To combat terrorism may—though this is disputed—require addressing poverty, repression, and war throughout the poorest world regions. Furthermore, these issues may be less amenable to unilateral U.S. actions than are military responses to terrorism. Thus, the need to address “root causes” of terrorism may draw the United States into closer cooperation with the UN and other international institutions in the years to come. It is unclear how these relationships will play out in practice. But if in fact the new world order is moving toward closer engagement of the global North with the South, and toward seriously addressing the South’s problems, this move would mark a shift from the world order that was developing in the 1990s, with its sharpened disparities. Do you think that investing in development, democracy, and peace in the world’s poorest countries is an important principle that should govern world order in the era of terrorist attacks? If you think this is a good idea, should it extend globally or just to countries currently “breeding” terrorists? Can Argentina or Democratic Congo fall apart without upsetting the rest of the world? Could all of Latin America or all of Africa? Will the emerging world order bring together the North and South in new ways?

#### The ideology of science and technology maintains and further entrenches development.

Ziauddin Sardar– Science Policy, Middlesex University–1999

“Development and the Locations of Eurocentrism.” Critical Development Theory. Eds. Ronaldo Munck, and Denis O'Hearn London: Zed Books Ltd, p.53-54.

The ideology of science and technology is the most formidable of all forces that keep development entrenched and ensure that Eurocentrism continues unabated. It is a rationality of domination. The intention of such seventeenth-century thinkers as Descartes and Bacon, the fathers of modern science, was to investigate external nature while leaving to religion the task of specifying the rules of social conduct. But through Comte and others, scientific method became absolutized as the basis for social reconstruction in a `positive' manner. By basing social reconstruction on scientifically certain grounds, they raised science and technology to the level of an absolute utopia, the perfect fusion of unlimited power and good to which all willingly submit, hence reconciling cultural and social conflicts. Although science and technology remain limited by real interests and structures of power, they claim to be one over-arching power. They thus take on the classical form of ideology, being an inversion of reality. Scientific and technocratic consciousness maintains the status quo and legitimizes the present structures within nations and between nations (Sardar 1988; Mendelssohn 1976; Sangwan 1991; Harding 1993). It does not project a future time when men's hopes will be fulfilled. Rather, it tells us that the future is already here in essentials, if not in full maturity. That future comes, then, as incremental addition of the products of science and technology rather than as a structural transformation. It is the end of transcendental hope. The only course open is development along the well-trodden and true path of the industrialized countries.

#### Their faith in the neutrality of technical solutions produces the development mindset

Arturo Escobar – Anthropology, UC Santa Cruz - 1995

Encountering Development: The Making and Unmaking of The Third World, p.35-36

The faith in science and technology, invigorated by the new sciences arising from the war effort, such as nuclear physics and operations research, played an important role in the elaboration and justification of the new discourse of development. In 1948, a well.-known UN official expressed this faith in the following way: "I still think that human progress depends on the development and application of the greatest possible extent of scientific research.... The development of a country depends primarily on a material factor: first, the knowledge, and then the exploitation of all its natural resources” (Laugier 1948, 256). Science and technology had been the markers of civilization par excellence since the nineteenth century, when machines became the index of civilization, "the measure of men" (Alas 1989). This modern trait was rekindled with the advent of the development age. By 1949, the Marshall Plan was showing great success in the restoration of the European economy and increasingly attention was shifted to the longer-range problems of assistance for economic development in underdeveloped areas. Out of this shift of attention came the famous Point Four Program of President Truman, with which I opened this book, The Point Four Program involved the application to the poor areas of the world what were considered to be two vital forces: modern technology and capital. However, it relied much more heavily on technical assistance than on capital, in the belief that the former would provide progress at a lower price. An Act for International Development was approved by Congress in May 1950, which provided authority to finance and carry out a variety of international technical cooperation activities, In October of the same year, the Technical Cooperation Administration (TCA) was established within the Department of State with the task of implementing the new policies. By 1952, these agencies were conducting operations in nearly every country in Latin America as well as in several countries in Asia and Africa (Brown and Opie 1953). Technology, it was believed, would not only amplify material progress, it would also confer upon it a sense of direction and significance. In the vast literature on the sociology of modernization, technology was theorized as a sort of moral force that would operate by creating an ethics of innovation, yield, and result. Technology thus contributed to the planetary extension of modernist ideals. The concept of the transfer of technology in time would become an important component of development projects. It was never realized that such a transfer would depend not merely on technical elements but on social and cultural factors as well. Technology was seen as neutral and inevitably beneficial, not as an instrument for the creation of cultural and social orders (Morande 1984; Garcia de la Fluerta 1992).

### AT: Development Solves the Environment

#### Whole world development is ecologically impossible, undesirable, and ultimately ends in an apocalypse.

Bob Sutcliffe– Economics, University of the Basque Country–1999

 “The Place of Development in Theories of Imperialism and Globalization.” Critical Development Theory. Eds. Ronaldo Munck, and Denis O'Hearn London: Zed Books Ltd, p.137-138.

The attainability critique of development argues that it is physically impossible for the whole world to reach the received destination. The stronger versions claim, though the claim hardly yet amounts to proof, that the per head levels of emission of greenhouse gases, and other contaminants and of use of nonrenewable resources typical of industrialized countries cannot be generalized to the population of the world as a whole without causing an apocalypse. 'Actually existing development' is seen less as the accumulation of goods and economic welfare and more as the accumulation of burdens on the environment. The voracious pig that is happier the more it eats is replaced by the finely balanced camel whose back breaks if it is over laden. Universal development is therefore an unsustainable illusion: the received destination of development has been part of a Faustian pact with the devil, allowing some to enjoy a brief material orgy destined to end in disaster. This fundamental critique of the assumptions of the standard model redefines development as a state that cannot be ecologically sustained in the long term. But ecologically centered writing produces various conclusions about what happens along the route. These range from a ` light' version which sees a more advanced, cleaner technology as a saviour; through neo-Malthusian population reduction; to a more thorough-going anti-materialism and anti-consumerism, often combined with proposals for a `return' to a society based on small, mostly self sufficient communities. The ecological critique, therefore, can be a critique either of the route, or of the attainability of the destination, or of both. There is still, however, little agreement about the exact physical dimensions of this problem and even less about a possible way around it. The attainability critique also tends to displace the nation as the focus of development since the problems to which it draws attention are apt to be relevant to a space at once more local and more global (Sutcliffe 1995).Even if the received destination were attainable, a growing number of critics have been saying that it is undesirable. After what economists call `the golden age' (1950-73), when rates of economic growth were the fastest ever experienced, it was still apparent that not only people in poor countries but also many groups in rich countries did not regard their existential needs as having been met. Implicitly and explicitly the desirability of development was increasingly questioned. This is, I think, the significance of the `new social movements' to the development debate. The demands of each of them (women, ethnic minorities, gays and lesbians, senior citizens, and so on) constitute, at least implicitly, a critique of the standard development destination, a denial that the supposed social benefits of development flow more or less automatically from high levels of productivity and material consumption. Because they come from so many quarters, the desirability critiques are even more diverse than the attainability critique. But they are no less fundamental. The concept of desirability, like attainability, tends to displace the nation from the centre of the development goal. It emphasizes how even rich, productive, `developed' nations can be full of needy, oppressed and unfulfilled people.

### Impacts

#### Development discourses motivate external intervention into the “Third World”, risking nuclear escalation and endless wars

Arturo **Escobar** – Anthropology, UC Santa Cruz - **95**

Encountering Development: The Making and Unmaking of The Third World, p.34

The cold war was undoubtedly one of the single most important factors at play in the conformation of the strategy of development. The historical roots of development and those of East-West politics lie in one and the same process: the political rearrangements that occurred after World War II. In the late 1940s, the real struggle between East and West had already moved to the Third World, and development became the grand strategy for advancing such rivalry and, at the same time, the designs of industrial civilization. The confrontation between the United States and the Soviet: Union thus lent legitimacy to the enterprise of modernization and development; to extend the sphere of political and cultural influence became an end in itself. The relationship between military concerns and the origins of development has scarcely been studied. Pacts of military assistance, for example, were signed at the Rio conference of 1947 between the United States and all Latin American countries (Varas 1985). In time, they would give way to doctrines of national security intimately linked to development strategies. It is no coincidence that the vast majority of the approximately 150 wars of the last four decades were fought in the Third World, many of them with the direct or indirect participation of powers external to the Third World (Soedjatmoko 1985). The Third World, far from being peripheral, was central to superpower rivalry and the possibility of nuclear confrontation. The system that generates conflict and instability and the system that generates underdevelopment are inextricably bound. Although the end of the cold war and the rise of the New World Order have changed the configuration of power, the Third World is still the most important arena of confrontation (as the Gulf War, the bombing of Libya, and the invasions of Grenada and Panama indicate). AIthough increasingly differentiated, the South is still, perhaps more clearly than ever, the opposite camp to a growingly unified North, despite the latter's localized ethnic wars.

#### Reductionist scientific approaches disrupt maintenance of life

Shiva – Center for the Study of Developing Societies – 1988

Staying Alive: Women, Ecology & Development, p.28

In the Third World, the conflict between reductionist and ecological perceptions of the world are a contemporary and everyday reality, in which western trained male scientists and experts epitomise reductionist knowledge. The political struggle for the feminist and ecology movements involves an epistemological shift in the criteria of assessment of the rationality of knowledge. The worth and validity of reductionist claims and beliefs need to be measured against ecological criteria when the crisis of sustainability and survival is the primary intellectual challenge. The view of reductionist scientific knowledge as a purely factual description of nature, superior to competing alternatives, is found to be ecologically unfounded. Ecology perceives relationships between different elements of an ecosystem: what properties will be selected for a particular resource element will depend on what relationships are taken as the context defining the properties. The context is fixed by priorities and values guiding the perception of nature. Selection of the context is a value determined process and the selection in turn determines what properties are seen. There is nothing like a neutral fact about nature independent of the value determined by human cognitive and economic activity. Properties perceived in nature will depend on how one looks and how one looks depends on the economic interest one has in the resources of nature. The value of profit maximization is thus linked to reductionist systems, while the value of life and the maintenance of life is linked to holistic and ecological systems.

#### Categories of development are unethical, threaten survival, and cannot engender effective responses

Shiva – Center for the Study of Developing Societies – 1988

Staying Alive: Women, Ecology & Development, p.

Living high on borrowed or stolen wealth is the economic prescription of today's high priests in banks and financial institutions, who see natural resources and the poor as dispensable elements of ecosystems. The Wall Street collapse has shown that this prescription is not only unjust and unethical, it is also unworkable. America, which has provided the model of the affluent consumer society, can no longer work as the norm, because for the women, the workers and the small farmers of America, prosperity has come to an end and they, too, have become dispensable. The crisis of survival that the categories and concepts of the age of masculinist ' enlightenment' have engendered cannot be overcome from within those categories. When the stock market crashed on Wall Street it became evident that the deficit financed casino wealth of America was non-sustainable. As John Kenneth Galbraith observed, Reagan's favourite magic of the market was itself writing the last chapter of Reaganomics. Yet all Reagan could say was, 'I've believed this too long to change my mind now.' The crisis mind can offer no solutions. Those who dare to think of solutions are precisely those who were declared incapable of thinking. Like the women in the Third World, they are clear that the issue is survival, and they have the relevant expertise. 'Rational' man of the modem west is exposed today as a bundle of irrationalities, threatening the very survival of humankind