

GLOBALISATION AND THE 21ST CENTURY WORLD

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"We live in a time of sweeping change. The success of free nations, open markets, and social progress in recent decades has accelerated globalization on an unprecedented scale. This has opened the doors of opportunity around the globe, extended democracy to hundreds of millions of people, and made peace possible among the major powers. Yet globalization has also intensified the dangers we face--from international terrorism and the spread of deadly technologies, to economic upheaval, and a changing climate"—U.S. National Security Strategy, May 2010.

Globalism and the Environment: Summary

Global environmental issues have had a substantial impact on both the theory and the practice of global governance.¹ Historically, the discourse of globalisation has figured importantly in the framing and dynamics of environmental action since the early 1970s, with satellite images of the "pale blue dot"², for instance giving rise to a rhetoric of the Earth's fragility, finiteness and ecological interconnectedness, as well as rising a new concern for preserving the biosphere's shared and limited resources (Miller and Edwards, 2001 & Jasanoff, 2001). Similarly, *Only One Earth*³ and *Our Common Future*⁴ helped translate these ecological and ethical ideas into political action. Since then, both the North and the South have been urged to unite in a project of global stewardship—that is, saving the planet. Today, we now witness a wave of natural and social scientific studies that follow on the effects of global environmental changes on vegetation and wildlife, agriculture, world trade and national economic viability and international security.⁵

Central to these studies is the scientific understandings of the earth as an integrated environmental system, what has actually challenged the traditional notions of citizenship, political participation, and regulatory policy. Furthermore, environmental concerns have quickly come to suffuse global-level discussions of poverty, development, security, and human rights. Of importance, is the abandonment of the economic patterns of import substitution, unprecedented opening of the national economies, a continental wave of political democratisation, an apparent economic recovery from the global economic recession, a growing social polarisation, a worsening of environmental problems, growing influence of the market, and the most intense urbanisation process on planet Earth. All these processes characterise what we now conceive as *globalism*.

In the 21st century, unlike before, networks of economy, technology, politics and ecology have all engulfed the earth, ultimately weakening the historical claims of nation-states, sovereignty, and cultural identity. Today, worldwide trade liberalisation and the growing influence of multilateral corporations, and economic waves originating in one region are freely flowing out to others, sometimes with tidal force. Information is travelling

¹ Marybeth Long Martello and Sheila Jasanoff, "Introduction: Globalization and Environmental Governance" in *Earthly Politics*. Pp 1-30

² Sagan, Carl. 1994. *Pale Blue Dot: A Vision of the Human Future in Space*. Ballantine Books

³ Ward Barbara and Dupos, Rene. 1972. *Only One Earth: The Care and Maintenance of a Small Planet*. WW Norton & Co.

⁴ World Commission on the Environment and Development (WCED). 1987. *Our Common Future*. New York: Oxford University Press

⁵ Sheila Jasanoff. 2003. "In a Constitutional Moment: Science and Social Order at the Millennium." In eds. B. Joerges and H. Newton. *Social Studies of Science and Technology: Looking Back, Ahead*. Boston: Kluwer Academic Publishers pp 155-180

instantaneously around the globe through twitter, phones, faxes, television, email and the internet (Martello & Jasanoff 2004). The integration of rich and poor nations is not a zero-sum game where the gains of one come at the expense of the other. Driven by the rapid democratisation of information, technology, and finance, globalisation is turning out to be a remarkably progressive, liberating force globally.

As the 21st century embraces *globalism*⁶ (otherwise defined as “the closer integration of the countries and peoples of the world ...brought about by the enormous reduction of costs of transportation and communication, and the breaking down of artificial barriers to the flows of goods, services, capital, knowledge, and people across borders.”⁷), transactions that once took months, weeks, days, are now taking hours, minutes, seconds. Globalisation otherwise called ONE BIG THING—is happening, faster and faster. But it is far from being complete and far from inevitable. Globalisation can disrupt, but it can also empower (Larson 2001). In Stiglitz’s view, there are no magic solutions, but there are multitudes of changes to be made in policies, in economic institutions, in the rules of the game and in the mindsets—that hold out the promise of helping make globalisation work better. (Stiglitz 2007)

But the fundamental concern in the current debate on the environmental effects of globalism is whether a worldwide liberalisation of trade may provoke environmental collapse.⁸ There is consensus amongst scholars that global trade and the increasing interaction between countries previously separated by trade barriers have stimulated a significant increase in transportation progresses at all geographical levels (Stiglitz 2007). Moreover, trade has for instance led to higher incomes, and therefore more production and more consumption, all of which have consumed more energy and consequently generated more waste, while increasing climate-threatening emissions. International transportation involving getting goods from one country to another has carried with it its own environmental costs/externalities (like pollution) and hence, a demanding problem of globalisation has been formed by environmental decay caused by the rise in international transportation.⁹

In the following sections, this paper explores *the pros* and *cons* of globalism in relation to the environment. We find that globalism can be a positive agent to the environment, and that globalism can equally be detrimental to the global environment. The paper concludes with a set of policy choices that can help make globalisation work better for the environment in the 21st century and beyond, both locally and globally.

Globalism as a positive Agent

There are two main arguments for pro-trade related to the environment: Economic growth will generate more opportunities for environmental protection, and that an analysis of trade liberalisation of the coal and food sector shows that liberalisation may not only

⁶ But globalization is also about the free flow of ideas, the exchange of culture and values, the greater attention now being given to issues such as human rights, environmental protection and technological advances which have brought people closer together than ever.

⁷ *Globalization and its Discontents*

⁸ The linkage between increased trade with environmental harm is known as the *scale effect*: since trade increases the *scale* of economic activity it will carry environmental costs.

⁹ Veen-Groot, Daniëlle B. van, and Peter Nijkamp. “Globalization, Transport, and the Environment: New Perspective for Ecological Economics.” *Ecological Economics*. Dec. 1999: 331-346.

generate large global income gains, but may also likely reduce global environmental damage from coal consumption and farming. Thus, from a welfare economic viewpoint and seen from a world trade perspective, globalisation enhances economic efficiency. But there is considerably fewer consensus among ecological economics researchers on what this means in practice, or on the social costs or benefits of globalisation for society at large (Sweeney, John J. 1999)¹⁰ Nevertheless, globalisation is thought to enable greater trade and competition between different economies, leading to lower prices, greater efficiency and higher economic growth. Moreover, globalisation is believed to be a positive force that can enable increased levels of investment, thereby making it easier for people to attract short term and long term investments. Investment by multinational companies is thought to play a big role in improving the economies of developing countries and the environment (Stiglitz 2007 and Kuznets, S., 1955).

With globalisation hitting home, global trade is opening up gates for new technologies and other innovations. Clean technologies are rapidly evolving today, with innovative products related to wind power, solar power, clean coal, and so forth being freely available in the market. Without international trade, many of these technologies would be entrapped wherever they were produced. Free trade is enabling the environmental benefits of emerging environmental technologies to spread. And this is why both the World Bank and the World Trade Organization (WTO) have encouraged countries to lower trade barriers applied to environmental technologies. Perhaps not surprising, research suggests that countries with borders more open to trade are quicker to adopt clean technologies. Indeed, empirical research first published in 1992 by the World Bank shows that the statistical relationship between per capita income and certain kinds of pollution is roughly shaped as an inverted U (also known as the Kuznets curves). In other words, economic growth is bad for air and water pollution at the initial stages of industrialisation, but later on reduces pollution as countries become rich enough to pay for control technologies.¹¹

Kuznets had earlier on shown that as the economy grows, pollution keeps falling: Market competition imposes a never-ending drive for efficiency and innovation. Since pollution results from the waste of a resource input, rising industrial efficiency results in lowered pollution. Furthermore, the growth of an economy generates the necessary wealth to invest in pollution control, for instance through new and efficient technologies. While the very poor are more concerned with survival, the wealthy are willing to pay for clean water and air. This dynamic has clearly been at work in Europe and the U.S. in recent decades: the richest countries predictably have the most stringent environmental regulations (Kuznets, S., 1955).¹² Similarly, a study by economist Arik Levinson has found out that for the 30-year period ending in 2002, total pollution emitted by U.S. manufacturers fell by 60 percent, even as manufacturing output rose by 70 percent. Levinson concludes that the drop in emissions is a resultant of stricter environmental regulations.¹³

¹⁰ Sweeney, John J. "Global Economy: Beyond the WTO." Nov. 1999. AFL-CIO. 20 Dec. 1999.

¹¹ IBRD, 1992. World Development Report 1992: *Development and the Environment*. New York: Oxford University Press

¹² Kuznets, S., 1955. *Economic growth and income inequality*. American Economic Review, 49: 1-28.

¹³ Levinson, Arik. 2004. "Trade Liberalization and Pollution Havens," with Josh Ederington and Jenny Minier, *Advance in Economic Analysis and Policy*, 4(2) (Berkeley Electronic Press).

Wealth creation also changes consumer demand for environmental quality. The richer people become, the more they tend to value environmental objectives such as safe drinking water, proper sewage disposal, and clean air. Once these basic needs are met, they begin raising the bar by demanding such amenities as scenic vistas and habitat for non-game wildlife. As their income rises, they increasingly have the financial resources to act on these values by imposing appropriate regulations on polluters and purchasing technologies that provide environmental benefits. A report by the World Bank reinforces these points. The World Bank Report (1992) concludes that one reason why environmental protection is lagging in many countries is low incomes. The Report argues that countries that live on the margin may simply not be able to afford to set aside resources for pollution abatement. If poverty is at the core of the problem, economic growth will be part of the solution, to the extent that it allows countries to shift gears from more immediate concerns to long run sustainability issues.¹⁴

But even with these empirical evidences suggesting that pollution increases at the early stages of development but decreases after certain income levels have been reached, many environmentalists have advocated for greater central control of the economy through government interventions (Command and control options). Unfortunately, as many economies continue cherishing the fruits of free markets, command and control measures have been bound to fail virtually in every other place they been tried. Interestingly, history shows that some of the most polluted cities on the face of the earth are in countries formerly or currently under socialist rule (limited or no free markets). Leaders of the former Soviet Union and East Germany were for instance confident in their ability to run their economies but they found out that eliminating market competition also eliminated incentives to develop innovative technologies that use resources more efficiently, leave alone their abilities to contain pollution and global climate change.¹⁵

Today, globalisation has increased the economic prosperity and opportunity in the developing world (including those formerly under the domination of the former Soviet Union), and the ability of these nations to control pollution and global climate change (Daniel Chudnovsky and Germán Pupato 2005).¹⁶ With globalism, these nations' civil liberties have been enhanced and there is a more efficient use of resources throughout the world. We can confidently claim that all the countries involved in the free trade are at a profit. As a result, there are competitive prices, more employment, less pollution and a better standard of living.

Even though anti-globalisers are raising fears that some regions are progressing at the expense of others, (see Stiglitz's *Globalization and Its Discontents*) such doubts are futile as globalisation is a positive-sum chance in which the skills and technologies enable to increase the living standards of all peoples throughout the world, while helping the global community contain the negative effects of climate change.

¹⁴ World Bank, 1992. World Development Report 1992: Development and the Environment, Oxford University Press, New York.

¹⁵ Charles A. John. 2000. *The Environmental Benefits of Globalization*. Cascade Policy Institute.

¹⁶ <http://www.cascadepolicy.org/pdf/env/globalization.htm>

¹⁶ http://www.iisd.org/tkn/pdf/tkn_envirion_argentina.pdf

In fact, globalisation is an efficient tool to eliminate penury and allow the poor people a firm foothold in the global economy (Stiglitz 2007). In two decades from 1981 to 2001, the number of people surviving on \$1 or less per day decreased from 1.5 billion to 1.1 billion. Simultaneously, the world population also increased. Thus, the percentage of such people decreased from 40% to 20% in such developing countries.¹⁷ In many societies of the world, globalisation has helped break the regressive taboos responsible for discriminating against people on the basis of gender, race, or religious beliefs. It is an antidote to the intolerant fundamentalism that oppresses millions of the world's poorest. As the oppressed are emerging from poverty and misery, one can anticipate a better treatment of the environment and general utilisation of the world's limited resources. The poor are not clearing forests for agricultural purposes, for instance. They will rather be thinking of other better alternatives to livelihood like industrial/manufacturing jobs, among others.¹⁸

From an economic globalisation stand-point, the general argument from the environmental point of view is that a certain degree of regulation is required to reach a "sustainable free trade." The technological aspect of globalisation is so important that it is possible to speak of a true techno-economic revolution or 'Knowledge Revolution' led by microelectronics and the information technologies, and accompanied by a constellation of developments based on new technologies intensive in science like biotechnology, new materials, new energy sources, nanotechnology, etc.¹⁹

Importantly, from the point of view of their environmental implications, many of the new and emergent technologies exhibit interesting differences with the previous technological paradigm. The attributes of the new paradigm having higher strategic interest can be characterised by ambivalence, flexibility, and knowledge-intensivity. The technical potential for ecologically sustainable development is higher today than in any moment of the past. However, the direction toward which the trajectories of the new techno-economic paradigm seem to be moving suggests that, unless we adopt an active and sustained strategies to carry out the necessary social, economic, and technological structural changes, the mentioned technical potential is likely to materialise only in the most advanced/industrialised countries. The sustainable scenario shows that, from the ecological and technological points of view, it is possible to change direction toward a much more desirable long-term situation, without too large direct economic costs. And globalism is at the heart of these case scenarios.

Finally, it is noteworthy that the assertion by trade critics that multi-national corporations, if unrestrained by government oversight, will shop around for countries with lax environmental regulations, thereby exert a downward pressure on pollution control efforts, fostering an environmental *race to the bottom* is unfounded. There is little evidence to support this hypothesis. Studies show that such issues as access to markets and labor costs are far more important to companies looking to locate new facilities. When those new

¹⁷ Buzzle.Com <http://www.buzzle.com/articles/advantages-of-globalization.html>

¹⁸ Pete Geddes. 2004. *The Benefits of Globalisation*. Foundation for Research on Economics and the Environment. <http://www.free-eco.org/articleDisplay.php?id=378>

¹⁹ Chichilnisky, Graciela 2007.

facilities are built, there are many reasons why managers tend to maintain high environmental standards, even when not required to do so. As a study by Daniel Esty and Bradford Gentry concluded: Many companies find that the efficiency of having a single set of management practices, pollution control technologies, and training programs geared to a common set of standards outweigh any cost advantage that might be obtained by scaling back on environmental investments at overseas facilities. Furthermore, multinational enterprises often operate on a large scale, and recognise that their visibility makes them especially attractive targets for local enforcement officials and the community around them; and finally most corporations attach extreme importance to their reputation.²⁰ Indeed, some studies have shown that, within given sectors in given developing countries, foreign plants are significantly more energy efficient and use cleaner types of energy than domestic plants.²¹

In brief, our preference for free trade is not in conflict with our desire for environmental quality. On the contrary, income derived from free trade is a prerequisite for most types of environmental gain. Wealthier people place greater value on environmental amenities, and they have the resources to pay for them. In fact, true environmental advocates should embrace global wealth creation (globalism) as a fundamental strategy for achieving environmental sustainability, in the 21st century and beyond. (John, A. Charles 2004).²²

The Cons

The environment remains to be an issue of global significance, inextricably linked to sustainable development and governance. (Jasanoff 2004; Our Common Future 1987). It's been argued that unfettered global trade will make efforts to reverse global warming and deliver safe products to our country all the more difficult (Les Leopold 2007). In fact, globalisation,²³ with its benefits, it's been argued, is responsible for the accelerated global warming and loss of biodiversity.²⁴ Globalisation has seen peoples and communities across the globe continue with activities related agriculture and trade, which have had a huge impact on the ecosystem and the biodiversity.

Similarly, the introduction of invasive alien species --another main reason for the loss of biodiversity, is mainly driven by globalism (New Zealand for instance lost 40% of its own bird species and even 40% more are threatened, since settlers brought their own European species to the country (Forum Biodiversität, 2002, p. 3)).²⁵ Movements of populations and genetic materials have increased with the development of technology, trade, specialisation in agriculture and environment—and have consequently impacted biodiversity negatively.

²⁰ Daniel Esty and Bradford Gentry. 1997. "Foreign Investment, Globalization, and the Environment,"

²¹ (See Gunnar Eskeland and Ann Harrison, "Moving to Greener Pastures? Multinationals and the Pollution Haven Hypothesis," National Bureau of Economic Research, 2002)

²² Charles, A. John. 2004. The Environmental Benefits of Globalisation: *Rising global affluence is a good thing for environmental sustainability*. Global Envision. <http://www.globalenvision.org/library/1/645>

²³ Tomas Larson argues that the battle over globalisation is often a battle over "That Which Is Seen, and That Which Is Not Seen". Joe Stiglitz argues that globalisation is the field on which some of our major societal conflicts—including those over basic values—play out. Among the most important of those conflicts is that over the role of govern and markets.

²⁴ Globalization is not the sole cause for the loss of biodiversity, but it definitely has a huge impact. Moreover the consequences of the loss do have a real impact on global environment, on policy and on globalization in general.

²⁵ Forum Biodiversität Schweiz (2002). *Hotspot. Biodiversität und invasive Arten. Biodiversität: Forschung und Praxis im Dialog*

Trade and homogenisation in all dimensions-- unintentional as well in biodiversity-- are main thoughts of globalism.²⁶

Changes in international trade patterns, markets, technologies and communication patterns have affected both the economy and the environment. Globalisation, which has been spread worldwide ever since the age of Industrial Revolution, has proved to create a country that is more independent and wealthy with the advantage of free trade, and vast rights from the WTO. However, if economical growth is all we care about, what will happen to the environment around us? It is already decaying into depletion! ²⁷

All our natural resources may be used up, if we do not regulate the frequent and increasingly large amounts we have used so far. The regulation of corporate excesses must be enforced, and this will not be achieved through the WTO unless someone stands up and oppose the rulings made by them. The people that spread and support globalism are most likely to be the ones in remorse. If the people who are affected by it the most do not fight for it, then who will?²⁸

Another argument that links free trade with environmental degradation is the “pollution haven” hypothesis. In a competitive market, producers operating at the lowest cost structure will have an advantage. What if, however, producers in a given country have low costs because environmental protection standards are weak? In that case firms will seek to locate production where environmental regulations are weakest and costs lowest. The result will be environmental degradation enabled by international trade.²⁹

If this argument holds, it makes sense that those concerned with the environment might at least be sympathetic to the anti-trade message of globalisation’s skeptics. Liberal trade, the protestors have argued, imperil not only the working conditions but also the environment. A staple of the news in 1999-2005 were protestors dressed as sea turtles or polar bears, signifying the threat to the natural world from rapidly globalizing exchange of goods and services.³⁰ The target has been clearly the policies of the World Bank, the International Monetary Fund (IMF) and the WTO, all of which embody the free trade agenda. The anti-globalism protests target not only the policies of these institutions, but also the alleged anti-democratic processes with which these institutions operate. Other targets have included multinational corporations with far-flung global supply chains. These supply chains are thought to encourage a *race to the bottom* in global labor standards, according to the protestors, and foster the proliferation of *sweatshops* in poor countries. Moreover, anti-globalisation movements contain a variety of labor constituencies, many of which had suffered from competition with low wage labor in other countries. These concerns continue

²⁶ Olorode, O. 2004. Biodiversity, Globalisation and Poverty. *African Journal of Traditional, Complimentary and Alternative Medicines*, Vol. 4, No.4, 532-540. Retrieved December 2, 2009, from

²⁷ Anderson, K., and R. Blackhurst. 1992. *The Greening of World Trade Issues*. New York: Harvester Wheatsheaf.

²⁸ Anderson, K., and R. Blackhurst. 1992. *The Greening of World Trade Issues*. New York: Harvester Wheatsheaf.

²⁹ The ‘pollution haven’ hypothesis is the same as the ‘race to the bottom’ hypothesis.

³⁰ Robyn Eckersley. 2004. “The big Chill: The WTO and Multilateral Environmental Agreements” *Global Environmental Politics* 4 (2): 24-50

to dominate the free-trade-environment debate today and most likely in the future, if appropriate and timely measures are not put in place.³¹

The monetary benefits of globalisation rest at least partly on the externalisation of pollution costs. The manufacturers and buyers of a diverse array of modern-day consumer goods have successfully pushed onto others some chunk of the costs of modern-day consumerism, while retaining the bulk of the benefits. There's little doubt that there are substantial benefits being generated by the spread of global manufacturing and trade, as economies of scale are captured, and as information itself becomes a primary factor of production. And, as in all things, there are costs as well. However, the benefits and costs are distributed in a quite lumpy and incommensurate way. A few people, in a few localised areas, seem to be bearing the brunt of the environmental health impacts of the production and the transportation processes -- while entirely different and substantially more diffused populations of producers and consumers are capturing its benefits.³²

One such sub-population of people upon whom we are imposing these sorts of externalities are the usually low-income families in developing and transitional economies, who live and work in close proximity to the various pieces of goods movement infrastructure -- the container ports, railyards, and truck depots -- that enable this capture of benefits. Children born with respiratory impairments, higher incidences of cancers and other sorts of air pollution-related illnesses are part of the price that is being levied upon the poor so that we can buy that flat panel large screen television set at a fraction of its legitimate market cost.³³

Global free trade proponents skillfully argue for comparative advantage, opening up markets, and economies of scale. They point to the communications marvels that have flattened and shrunk the world, putting us all in contact and in competition with each other for the best ideas and products. Global warming, however, puts a kink in this new global utopia because it demands that we also include the costs of externalities -- the carbon dioxide emitted from shipping and flying goods all over the globe -- goods that could easily be produced much closer to the point of consumption. It may be marvelous to text message your colleague in Nairobi, but from a CO₂ perspective, it's folly to fly fresh raspberries from Nairobi to Boston. And under current trade policies and regimes, we will import the next wave of high-efficiency light bulbs to save energy while wasting some of the gains on the carbon used to transport them here from around the globe.³⁴

Analysts argue that when global carbon cap and trading schemas are put in place and a price in effect is placed on carbon emissions, we are told, there will be a burst of new technologies and efficiencies that will dramatically reduce global warming gases. But it seems this should have been thought through as part of trade liberalisation, rather than left to the indefinite future. As a result, we are trapped in a race against the accelerating forces

³¹ Sweeney, John J. "Global Economy: Beyond the WTO." Nov. 1999. AFL-CIO. 20 Dec. 1999

³² Krugman, P. R., and Mitch Obstfeld. *Economic Globalization and the Environment*. New York: Harper Collins, 1994.

³³ Veen-Groot, Daniëlle B. van, and Peter Nijkamp. "Globalization, Transport, and the Environment: New Perspective for Ecological Economics." *Ecological Economics*. Dec. 1999: 331-346.

³⁴ Markusen, J. R., and J. R. Melvin. *The Theory of International Trade*. New York: Harper & Row, 1998

of rapid, carbon-fueled development unleashed by our very own trade policies. And, it's apparent who the winners and losers are in this race as onto our store shelves and into our homes come toxic toys, toxic pharmaceuticals, toxic toothpaste, and toxic dog food -- very predictable products of accelerated global trade.³⁵

Furthermore, the rise in international transportation is partly to blame on the transport of globalised foods. As more global corporations take over most of the aspects of farming, local resources and labors of small farmers are decreasingly vanishing. This has forced people to buy and eat foods that are grown overseas, thus causing and encouraging the amount of international transportation. Moreover, globalisation has made the transport division of any modern nation to be a significant contributor to local air pollution, noise annoyance, intrusion to landscapes, congestion and high fatality rates.³⁶

Even though the effects of globalisation contribute to several environmental defects, some may argue that free trade will avoid the efficiency losses associated with protection. It will reinforce economies of progression, and entrepreneurs are provided with an inspiration to seek new ways to export or compete with imports, a situation that offers more opportunities for learning and innovation. The belief is that trade liberalization will likely have a positive effect on the environment by making the contribution of resources more efficient, promoting economic growth, and increasing general welfare.³⁷ But this is NOT true.

In brief, for nearly a generation, the mainstream pro-globalisation forces have ignored climate change. Instead, virtues of liberalised trade have been idolised: low (competitive) prices, increased efficiency, lifts of nations out of poverty, and overall global prosperity. Those who questioned NAFTA, CAFTA, GATT, WTO, and the like are derided as protectionists, who force artificially high prices on the rest of us while making our economy less competitive and less prosperous. Manufacturing unions attempting to stop the destruction of millions of middle-income, U.S.-based factory jobs are vilified as elitists who are more concerned about the privileged few than about the poor, who gain new jobs, say at home and in the developing nations.

Making Globalisation Work Better for the Environment.

While global warming and environmental conservation initiatives are two complex processes, an explicit framework for research, policy and action is vital both at the local and global levels. For better outcomes, there is need for the local and global communities to set realistic objectives for policy and action, if the environment and other public goods are to be protected. As we examine some of the strategies that can be employed to help make globalisation work better in the 21st century, it is important to note that globalisation will be optimized only when "*environmental consciousness*" becomes a central objective of national and global policy making and in the design and management of the international economic system; the indirect effects of globalisation operating through local and global

³⁵ Leopold, L. 2007. *Globalization is Fueling Global Warming*. Chelsea Green Publishing

³⁶ Veen-Groot, Daniëlle B. van, and Peter Nijkamp. "Globalization, Transport, and the Environment: New Perspective for Ecological Economics." *Ecological Economics*. Dec. 1999: 331-346.

³⁷ Mander, Jerry, and John Cavanagh. "WTO Feeds Corporate Greed." *USA Today*. 2 Dec. 1999: 1A.

economies remain critical for environmental outcomes; and that substantive resources, educational and research are essential for reliable assessments of the impact of globalisation on the environment.

1. Create and Strengthen International institutions and regimes to manage globalism and the environment³⁸

Even though neoliberal institutionalism is challenging the pessimistic neorealist view that “international cooperation” is a temporal phenomenon driven by states’ self-interests, international cooperation, defined as ‘deliberate and coordinated adjustment of policies by states attempting to solve a mutual problem or achieve mutual gains,’³⁹ while involving collective, purposive behavior of state and NSAs whose efforts shape and are shaped by material and nonmaterial forces, is indeed needed.⁴⁰ This corporation must span from states to non state Agencies (NSAs). The most important NSAs in international cooperation will be IGOs, including the United Nations and its specialised agencies. United Nations conferences, for instance, are routinely paralleled by well-attended NGO forums, who often challenge some of the accepted views of state agents. NSAs often play a significant role during an issue definition and agenda setting, although this varies by the type of NSA. NSAs play a growing role in monitoring and implementing international agreements,⁴¹ and through this role, some NSAs are influencing incentives, beliefs, and preferences of states and other NSAs and hence shaping the terms and direction of international cooperation.

Importantly, NSAs play ideational, non-material vectors of influence. This is often reflected in the transnational NGOs pursuit of normative changes by reframing problems as ‘global’ or “cosmopolitan,” rather than of sole interest to states.⁴² According to Cronin (2002b), IGOs may act as “socializing agents” in bringing about changes in states that threaten regional stability,⁴³ and that, NSAs are increasingly acquiring the ability to influence and transform international politics. This paradigm shift is not merely as a result of a relative change in who shapes outcomes of international politics, but responds to the changing conceptualisation of international politics, and more broadly, to including important normative and material dimensions of society.

Beyond states and NSAs, is the epistemic community. Epistemic community could be critical in identifying state interest either by directly identifying them for decision makers or by illuminating the salient dimensions of an issue from which the decision makers in one state can deduce their interests as they proceed to influence other states.⁴⁴ Because

³⁸ A comprehensive discussion on the role of institutions in development and environmental management is offered by Margaret Keck and Kathryn Sikkink. Keck and Sikkink (1998) argue that since the Stockholm Conference of 1972 that was attended by 114 governments, we now witness a cloud of institutions around which transnational environmental networks are mobilized to help save the planet. In their view, this has happened because the environment remains a legitimate concern for the international community (see Margaret & K. Sikkink. 1998. “Chapter 4: Environmental Advocacy Networks” *Activists Beyond Borders*. Ithaca, NY: Cornell University Press. pp121-163

³⁹ Kate O’Neill. 2009. “Chapter 4: State-led Global Environmental Governance: Interantional Cooperation and Regime Formation” in *The Environment and Interantional Relations*. Cambridge: Cambridge University Press. Pp.71-103

⁴⁰ Baldwin 1993

⁴¹ (Florini 2000, Simmons & Oudraat 2001)

⁴² (Nadelman 1990 cited in Klotz 2002)

⁴³ Cronin (2002b)

⁴⁴ Haas, peter. 1992. “Introduction: Epistemic Communities and International Policy Coordination” *International Organisations*. 46(1): pp1-35

epistemic community members' professional training, prestige and reputation for expertise in an area is highly valued by society or elite decision makers, they will often have influence and access to reigning political systems. Furthermore, their "standing" in society legitimises their activities and stances on policy debates, since this 'standing' is their primary source of social-political power.⁴⁵

According to Betsill and Corell NGOs are crucial (Betsill and Corell 2001). Both argue that NGOs influence international environmental negotiations when they intentionally transmit information to negotiators that alters both the negotiating process and outcome from what would have occurred otherwise.⁴⁶ In their view, a growing body of evidence indicates that NGOs influence government decisions to develop domestic policies to protect natural resources and to negotiate international treaties, as well as how individuals perceive environmental problems. Moreover, NGOs participate in global environmental politics in a number of ways: they raise public awareness on the environment; they lobby state decision makers hoping to affect domestic and foreign policies related to the environment; they coordinate boycotts in efforts to alter corporate practices harmful to nature; they participate in international environmental negotiations; and they help monitor and implement international agreements (Betsill and Corell 2001).

In the same vein, environmental NGOs shape understandings about how individuals and corporations ought to behave vis-à-vis the role of transnational networks in creating structures of international governance. Princen, Finger and Manno, for instance, have suggested that INGOs link local demands with global negotiations as well as the world of scientists with the world of politics. Similarly, Zürn maintains that INGOs and epistemic communities significantly influence international governance by shaping the agenda, by playing a role in the negotiation process, by improving implementation of international agreements; by providing science with a platform in negotiations that represents societal interests and by balancing the interests of economic groups. But these activities are carried out by a wide range of NGOs in different political arenas that may involve unique goals, strategies, and political dynamics.⁴⁷

2. Merge the Local with the Global and vice-versa

Contrary to what many early analysts of globalisation expected, the global has not subsumed or transcended the local. Rather, the local challenges have become an integral part of global stakes. In fact, global solutions to environmental governance cannot realistically be contemplated without at the same time finding new opportunities for local self-expression. Furthermore, the construction of both the local and the global crucially depends on the production of knowledge and its interaction with power. How we understand and represent environmental problems is inescapably linked to the ways in which we choose to ameliorate or solve them, and which issues are defined as meriting the

⁴⁵ Peter Haas.1992. "Introduction: Epistemic Communities and International Policy Coordination" *International Organization*. 46(1): p. 1 - 35

⁴⁶ Betsill, M. Michele & Elizabeth Corell. 2001. "NGO Influence in International Environmental Negotiations: A framework for Analysis." *Global Environmental Politics* 1:4 Nov.2001 MIT

⁴⁷ Betsill, M. Michele & Elizabeth Corell. 2001. "NGO Influence in International Environmental Negotiations: A framework for Analysis." *Global Environmental Politics* 1:4 Nov.2001 MIT.

world's attention, has everything to do with who has power and resources, including scientific ones, to press for them .(Jasanoff & Long Martello 2004)

In Miller's view, the risks of global climate change have been conceived as problems of changes in the local environmental factors like rainfall, river flows, sea-level, among others.⁴⁸ This perspective for instance led to an acute dissociation of the discussions of the rising concentrations of CO₂ and other green house gases from the need for global action. Following an increased usage of computer models of the general circulation of the atmosphere, however, climate scientists have now increasingly represented the earth's climate as an integrated, global system, while linking the atmospheric dynamics and energetic to the world's oceans, vegetation, glaciers and ice caps.⁴⁹ This paradigm shift is now packed with new views from scientists like Tolba's⁵⁰ that typify contemporary perspectives that link the global and local politics of climate to scientific understanding of global climate change. This paradigm shift, as Miller's argues, is due to the *re-imagination* of the Earth's climate as a global system and thus claims about climate change have begun to engage with debates about international politics.⁵¹ Consequently, local institutions such as traditional leadership, traditional healers, ritual forest, traditional midwives and various taboos and sacred sites and practices are having an active role in conservation and utilisation of forests and wildlife resources.⁵² Christopher Rice argues too that, environmental sustainability cannot be understood as a single discourse or as a totalising concept. Rather, local context will in most cases determine how a discourse of sustainability is to be effectively articulated. In his view, by conceiving of sustainability from a local perspective provides us with an analytical tool for understanding how local meanings of sustainability are constructed as well as employed to protect the environment.⁵³

Surprisingly however, the local knowledge is no longer the basis for competing knowledge claims, but is a tool for exercising voice in global politics. Demanding space for local knowledge thus functions as a form of boundary work designed to give value to practices and ways of interpreting nature and society that markedly differ from those introduced by 'forces of globalism.' This reality leaves us with one question: How do we involve local voices in global governance? Since production of knowledge is not something that occurs outside of social and political relationships, but rather integral to them, and since global and local power-knowledge formations are often already relatively well articulated and established, these formations must be adjusted and brought into mutual accommodation through constant back -and- forth translations, while letting mutual adjustments demand for mutual accountability. Similarly, expert and lay observers affiliated with different

⁴⁸ (NRC, 1983)

⁴⁹ Miller, C. A. 2004. Climate Science and the Making of Global Political Order" in S. Jasanoff ed. States of Knowledge, Londo: Routledge. Pp 46-66

⁵⁰ Tolba- 'Quote'-miller

⁵¹ Miller, C.A.2004.

⁵² Fisher. 1993. Creating space; Development Agencies and Local Institutions by Natural Resources Management: *Peoples, Trees and Forests Newsletter* 22:4-10

⁵³ Rice, S. Christopher. 2003. Grassroots Organisations, Public Spaces and Discourses of Sustainability. University of Kentucky: <http://www.uky.edu/~ppkaran/conference/Grassroots%20Organizations.Public%20Spaces%20and%20Discourses%20of%20Sustainability.pdf>

organisations and groups in society must constantly subject their knowledge claims to critiques and reviews, to expose weaknesses, tacit assumptions and values, while fitting their general claims to local circumstances.⁵⁴

Moreover, involving representatives of local/indigenous communities into global networks of access and trust while enabling meaningful interactions between local actors and global policy elites and open pathways for information flows remain critical. Disappointing results of environmental conservation policies in developing countries for instance help explain why many scholars and practitioners have shifted their focus away from global and state centered policies towards solutions at local level (Gibson *et al.*, 1999).⁵⁵ Many policy studies concerning the relationship between local institutions and natural resources management have indicated that poor natural resources management is due to intrusive state policies which interfere with local scenes, consequently undermining traditional institutions from regulating resource use and conservation.⁵⁶

The 'local' must accept its construction as compliant, homogenous and safe: the local and indigenous people's sciences and natural resources conservation management techniques must be recognised and valued.⁵⁷ This will involve recognising traditional knowledge, innovations and practices that are relevant to conservation of biological diversity and sustainability. Additionally, integrating traditional knowledge with scientific knowledge, increasing democratic interactions amongst groups, and streamlining the dichotomy between indigenous knowledge and modern scientific knowledge to avoid underdevelopment is essential. Finally, we must continually aspire to preserve and enhance valuable traditional knowledge that is currently threatened by global elitism.⁵⁸

3. Reform the WTO:

With the failure of the Millennium Round, the WTO has been reduced from a forum for broad negotiations on trade to an international court of law in trade matters.⁵⁹ The WTO, Eckersley argues, represents a barrier to the efficacy of multilateral environmental agreements (MEAs) than being a new trade-off between the benefits of increased compliance by others and the disadvantages of decreased policy autonomy at home.⁶⁰

⁵⁴ Fogel, Cathleen. Constructing Progressive Climate Change Norms: The U.S in the Early 2000s>

http://books.google.com/books?id=8c7Bcat_b9oC&pg=PA99&lpg=PA99&dq=Cathleen+fogel&source=bl&ots=Kloobt7sif&sig=IIMMu5EXsJD7ayMSdDtpMf_GE0&hl=en&ei=hMFNTaCqG8P38AbC7jiFDg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CCcQ6AEwAw#v=onepage&q=Cathleen%20fogel&f=false

⁵⁵ Gibson, C.C. McKean, M.A. and Ostrom, E. (Eds). 1999. *People and Forests: Communities, Institutions and the Governance of forests*. Cambridge M.A: MIT press.

⁵⁶ <http://www.unesco.org/mab/doc/mys/2003/kweka/finalRep.pdf>

⁵⁷ Anonymous, 2001.

⁵⁸ Rengalakshimi, Raj. 2006. Harmonizing Traditional and Scientific Knowledge Systems in Rainfall Prediction and Utilization", in Fikret Berkes et al., eds., *Bridging Scales and Epistemologies: Linking Local Knowledge and Global Science in Environmental Assessment*. Washington, Dc: Island Press. Pp. 225-239

⁵⁹ Even though there are two general arguments for "including" environment in the WTO, the first being the GATT (which is out of date because when it was drafted, environmentalism was not a public policy issue) and the second being that the environment is of such importance that WTO rules should allow trade restrictions to support protection of the environment, WTO provisions do not adequately help protect the environment. As rules of free trade apply to agriculture, exemptions should be made for the "multifunctional" role in society of agricultural producers, including protection of the environment. (See Alal Oxley's WTO and the Environment : <http://www.apec.org.au/docs/oxley2001.pdf>)

⁶⁰ Robyn Eckersley. 2004. "The big Chill: The WTO and Multilateral Environmental Agreements" *Global Environmental Politics* 4 (2): 24-50

According to him, trade restrictions in MEAs remain vulnerable to challenges by the WTO, in addition to the right of WTO members to challenge trade restrictive measures in MEAs in the WTO.⁶¹ Interestingly, the absence of clear legal rules that exempt MEAs from WTO challenges and the rights of WTO members to challenge trade restrictive measures taken pursuant to MEAs and the dispute resolution process of the WTO still remain the more powerful mechanism for the resolution of trade and environmental conflicts (when compared to the enforcement provisions of MEAs) today.

If a WTO member were to launch a WTO challenge against a trade restrictive measure in a MEA, for instance, the question of the compatibility of the two regimes will be decided by the dispute settlement proceedings of the WTO rather than the MEA (or an independent body). This makes the parties to MEAs powerless in deciding when trade rules should be waived in the interests of more effective global environmental protection.⁶² Furthermore, the political impasse within the CTE demonstrates that WTO politics lags well behind WTO jurisprudence. Accordingly, the CTE deliberations raise questions about the legitimacy of the judicial arm of the trading regime when it is patently out of step with the rule-making body. Nonetheless, if the members of the WTO plainly cannot agree to take the reasonably non-controversial step of exempting specific trade obligations in major MEAs from WTO disciplinary measures, then the WTO rule-interpreting body may decide in the future not to interpret the law. Consequently, national rules, especially those protecting the environment and public health, may be overturned because they are incompatible with the existing WTO's rules.⁶³

The pro-trade politicians, policy makers and opinion leaders must now rescue free trade from the WTO trap by reforming it and by aggressively advocating for a unilateral liberalisation. What is needed is not more logrolling by elitists, but an open, straight forward trade policy that is not so easy to manipulate. Stiglitz has for instance argued that the world would have benefitted had the U.S used the opportunity to help build an international economic and political system based on values and principles of trade agreement designed to promote development in poor nations. Instead, unchecked by competition to win the hearts and minds of those in developing countries, the advanced industrial economies (including the U.S.) have actually created a global trade regime that helps their special corporate and financial interest, consequently hurting the poorest countries in the world. (Stiglitz 2007)

⁶¹ Alisdair R. Young (2005) argues that some environmental and consumer advocates discount the pivotal role of government in the dispute resolution process but entirely blame it on the WTO. In his view, the WTO critics negate the fact that governments agree to the multilateral rules in the first place, they decide which market access barriers to pursue and how aggressively. Moreover, governments determine how to comply with WTO judgments that go against them. He concludes that by exaggerating the constraints imposed upon national governments by the WTO, consumer and environmental advocates run the risk of actually discouraging the very regulations they favor; they run the risk of either persuading policy makers that adopting environmental and public health measures is futile or making more credible their excuses for not adopting popular policies. He concludes that the activists' attacks on the WTO risk contributing to the "regulatory chill" they claim the WTO causes. (See Young, A. R. 2005. "Picking the Wrong Fight: Why Attacks on the World Trade Organization Pose the Real Threat to National Environmental and Public Health Protection" *Global Environmental Politics* 5(4): 47-72.

⁶² Robyn Eckersley. 2004. "The big Chill: The WTO and Multilateral Environmental Agreements" *Global Environmental Politics* 4 (2): 24-50

⁶³ Robyn Eckersley. 2004. "The big Chill: The WTO and Multilateral Environmental Agreements" *Global Environmental Politics* 4 (2): 24-50

Reforming the WTO means WTO rules must be subordinated to environmental measures. The WTO must permit controls on trade according to how products are processed or the environmental effects of those processes. The WTO must review the concept of *national sovereignty* upon which the WTO is based because *sovereignty* prevents extraterritorial application of trade measures to protect the environment.⁶⁴ The WTO must threaten to invalidate some trade provisions in some multilateral agreements that are responsible for environmental degradation and finally the WTO must give adequate expression to the precautionary principle.

4. Embrace a wider/broader category of knowledge

The tentacles of globalism have finally reached to ‘sovereign’ societies. These societies are now required to make a drastic accommodation to large scale development and resource raiding. In fact, the impact of globalism has been great in native communities who lived in areas endowed with pristine resources like oil, water, forests, fish, wildlife, minerals, biodiversity and medicines (that is medicinal plants etc.).

Today, global rules on the patenting of genetic resources via the WTO have made possible the privatisation of indigenous people’s genomes—the biological diversity upon which they depend and the very knowledge of how that biodiversity might be used commercially. Arguably, therefore, globalism, while being responsible for new advances in technology, the re-orientation toward export led development and the imperatives of global financial markets remain critical forces responsible for the extermination of countless indigenous communities and their knowledge—especially when the communities and their knowledge stands on the way of globalisation. Big dams, mines, pipelines, roads, energy development, military intrusions—are threats and consequences of globalism that often neglect anything local: the people, their knowledge, their resources et cetera.⁶⁵

As a remedy, there is need to shift from ‘science’ *per se* as the primary cognitive resource for addressing global-scale social and ecological challenges to the broader category of ‘knowledge’ because international environmental regimes are increasingly admitting that local, traditional and indigenous knowledge may serve as useful instruments for sustainable development and for connecting with ‘on the ground’ political constituencies. Similarly, several environmental regimes such as the Convention on Biological Diversity and institutions such as Canada’s International Development Research Center recognise the need for more ‘culturally appropriate’ technologies. (Jasanoff & Long Martello 2004)

5. Every trade agreement must include global warming impact studies that assess the carbon footprints of accelerated trade.

Globalization has increased the number of markets and thus expanded trade to support a global economy instead of just local economies. Today goods can flow easily across borders. Standards of living in poor countries have been raised. Governments have become more stable. But what makes the 21st century more distinct is the advances in technology,

⁶⁴ Steven Shrybman, *Canadian Alliance on Trade and Environment*, c/o Sierra Club of Canada, *An Environment Guide to the WTO*, May 1997.

⁶⁵ See Dr. Kgomotso, H. Moahi paper: Globalization, economy and the Implications for indigenous Knowledge: *International Review*. Vol. 7. Sept. 2007: <http://www.i-r-i-e.net/inhalt/007/06-moahi.pdf>

economic liberalisation, and the speed with which change is taking place. In brief, Globalisation has had the potential for the good: promotion of open societies and for a free exchange of goods and ideas; and for the bad—global climate change, erosion of local cultures, spread of disease and an almost loss of sovereign states. This calls for the mitigation of its negative effects.

6. *Enforce rigorous safety inspections on food, pharmaceuticals, and other consumer items before products cross borders.*⁶⁶

Astrid Scholz for instance has suggested that programmes like the international biodiversity programs could play a role in construction, traversing and translating between realms of local and global knowledge and resources. In Scholz's view, the scientific work of natural products chemists and other collectors of botanical samples take place across large geographical distances and cultural divides (Scholz, 2004). The resulting traffic in knowledge, biological materials and money must be managed appropriately across and within borders.

7. *Carefully construct border adjustment taxes so that new green, carbon-reducing industries can be nourished at home.*

A tax, if placed on the industry responsible for pollution (pollutant), can be a corrective tax. Environmental Economists hold that Pareto optimality cannot be achieved in the face of external diseconomies simply by affecting a reduction in the output of the polluting firm. Thus, output taxes or monopoly power, since they can only change industry output, cannot achieve Pareto optimality. One of the conditions for Pareto optimality, of course, must be that abatement input be used efficiently—that is, the wage of abatement of each input must be equal to the value of its marginal product in abatement. Since neither input nor output taxes make abatement profitable, this condition can only be attained by placing a tax on the pollutant (Wenders, T. John 1973)

In terms of policy, high efficiency light bulbs, wind generators and solar panels should not be imported from factories tied to inefficient energy sources sent from afar on ships and planes burning fossil fuels. The next wave of green products should instead be manufactured closer to where they will be used, creating homegrown, green jobs while helping to reduce global warming. Or we can continue waiting for the invisible hand to determine our fate -- a fate that will ensure global warming to go unchecked and unabated, and more children sucking toxic toys.⁶⁷

⁶⁶ See an extended discussion by Astrid Scholz (Chapter 9 of the *Earthly Politics*). Scholz argues that today, scientists have become central to the global management of genetic resources as they transport biological samples, knowledges, technology and institutions between different knowledge production sites, localities and cultures. These calls for new checks/regulations.

⁶⁷ Leopold, L. 2007. *Globalization is fueling Global Warming*. Chelsea Green Publishing

Conclusion

Globalisation is the definitive political issue of the 21st century. As once observed by Thomas Friedman, ideological fire will not be consumed by the struggle between right or left but between globalists and anti-globalists, between those who welcome and those who fear economic openness.⁶⁸ While the importance of the relationship between globalisation and the environment is obvious, our understanding of how these twin dynamics interact remains weak. Much of the literature on globalisation and the environment remain vague: It focuses disproportionately only on trade-related connections and/or partially highlights the impacts of globalisation on the environment, but not the other way around.

It is important to note that not only does globalisation impact the environment, but the environment impacts the pace, direction and quality of globalisation. This happens because environmental resources provide the fuel for economic globalisation, as our social and policy responses to global environmental challenges constrain and influence the context in which globalisation happens. The world economy globalises as national economies integrate into the international economy through trade; foreign direct investment; short-term capital flows; international movement of workers and people in general; and flows of technology. This has created new opportunities for many; but not for all.

One problem with globalisation is increased the use of non renewable resources of energy, leading to increased pollution and global warming. Today firms can outsource production to where environmental standards are less strict. Globalism has placed pressures on the global environment and on natural resources, straining the capacity of the environment to sustain itself thus exposing human dependence on the environment. Moreover, as our environment remains intrinsically linked to economic development, providing natural resources that fuel growth and ecosystem services that underpin both life and livelihoods have helped exert more pressure on the environment. In brief, not only are the environment and globalisation intrinsically linked, they are so deeply welded together that we simply cannot address the global environmental challenges facing us without striving to comprehend and harness the dynamics of globalism that influence them.

⁶⁸ Friedman, Thomas L. 1999. *The Lexus and the Olive Tree*. New York: Farrar, Straus and Giroux.