A Capabilities Approach to Trade and Sustainable Development

Using Sen's Conception of Development to Re-examine the Debates

Aaron Cosbey
International Institute for Sustainable Development
November 2004

DEZA DIREKTION FÜR ENTWICKLUNG UND ZUSAMMENARBEIT
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Aaron Cosbey, Associate and Senior Advisor, International Institute for Sustainable Development

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International Institute for Sustainable Development
161 Portage Avenue East, 6th Floor
Winnipeg, Manitoba
Canada R3B 0Y4
Tel: +1 (204) 958-7700
Fax: +1 (204) 958-7710
E-mail: info@iisd.ca
Web site: http://www.iisd.org/

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Executive Summary

This paper is a thought piece that accepts the thinking of Nobel laureate Amartya Sen on the subject of development, and asks what that new conception of development means for trade and sustainable development. That is, if we conceive of development as Sen does, how can this conception help us better define sustainable development? And what role is there for the trade regime and trade policy in the service of sustainable development so defined (the paper starts from the basic premise that sustainable development is the appropriate goal of trade and investment policies)? Further, what would this new conception mean to those non-governmental organizations (NGOs) who seek to harness international trade and investment in the service of sustainable development?

Sen defines development as those freedoms that allow individuals to pursue that which they have cause to value. So education and good health are forms of development, since they free individuals to be able to pursue their life goals, whatever they may be. Other types of freedom include democracy and free speech; the opportunity to buy and sell what one wishes on fair terms; openness and honesty in government and business dealings; law and order; and a social safety net. Sen (1999:18) argues that "Greater freedom enhances the ability of people to help themselves and also to influence the world." The process of achieving those freedoms is his conception of development.

How can this conception help us define sustainable development? The standard definition of sustainable development comes from the Brundtland Commission: "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."[1] But Brundtland never explicitly defines development itself—only saying that whatever development is, it should be sustainable.

This paper combines the thinking of Sen and the useful framework offered by Brundtland. We first add an important type of freedom to those elaborated by Sen, building on the work of Duraiappah (2001, 2004), who argues that ecological security is fundamental to people's goals. Its absence is no less limiting than is poor health, for example, and its presence no less a goal in its own right. For

1 WCED (1987): 42. The full definition, seldom quoted, continues: "It contains within it two key concepts: the concept of 'needs,' in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

the purposes of this paper, sustainable development is Sen's conception of development (adding the concept of ecological security as argued by Duraiappah), but achieved in such a way that future generations' ability to achieve development is not compromised. Such a definition will still need to be elaborated in specific contexts to have any solid meaning, of course. The goal of this paper is to do so in the specific context of trade and trade liberalization,[2] asking how they might contribute to the achievement of sustainable development.

We start with a thorough enunciation of the elements of freedom that might be most importantly affected by trade and trade liberalization, as abstracted and adapted from Sen's *Development as Freedom* (1999). The result, presented below, is not a definitive listing; development priorities for any given community or individual would need to be defined through a participatory process of inquiry.

1. Education
   - High quality primary education, at a minimum (literacy, numeracy)
   - Training in democracy, social rights and obligations
   - Training on nutrition, fitness
2. Health
   - High quality primary care, at a minimum
   - Adequate food, potable water
3. Governance
   - Participative democratic process
   - Honest, efficient bureaucracy
   - Transparency, accountability of government operations
4. Legal protections
   - Independent and fair judiciary
   - Rights of expression, freedom of media
   - Rights to non-discrimination
   - Property rights
   - Competition law
   - Labour rights
5. Market opportunities
   - Lack of tariff and non-tariff barriers to movement of goods and services
   - Lack of barriers to entry of firms
   - Access to credit

2 Throughout the paper, trade and trade liberalization are used as shorthand to mean all the issue areas normally treated in trade negotiations. These, of course, extend far beyond trade in goods to trade in services and to areas of deeper integration such as intellectual property rights, investment, competition policy, regulatory policies and so on.

   - Right to organize
   - Adequate wage levels
6. Public capital
   - Social safety net
   - Programs promoting opportunities for disadvantaged
   - Effective policing (incl. regulatory enforcement), national defence
   - Transportation infrastructure
   - Communications infrastructure
   - Energy infrastructure
   - Water supply and treatment infrastructure
7. Social capital
   - Stability of family relations, supportive social structures
   - Basic trust
   - Tolerance of diversity
8. Ecological capital
   - Stable climate (normal rainfall patterns, storm activity)
   - Adequate watershed function (slow filtration, water retention)
   - Adequate stocks of natural resources

For each of these types of freedom there are a number of "impact pathways" that can be identified, by which each might be linked to trade and trade liberalization. For example, liberalization of services may provide better access to clean water, health care, communications and transportation. Or, depending on how it is conducted, it may raise prices and unduly limit the government's capacity to regulate in the public interest.

Each of the potential linkages is discussed in some detail in the body of the paper. An overriding theme that emerges is that trade and trade liberalization are neither inherently good nor bad, but that strong domestic institutions and proper supporting policies are instrumental in changing the quality of any impacts. Trade liberalization in the absence of a strong environmental management regime, for example, courts environmental degradation that may result in a backward step for sustainable development.

The role of income as a route to pursuing other freedoms (in Sen's terminology, income is an "instrumental" freedom, helping to achieve other "constitutive" freedoms) deserves special treatment. One of the key arguments for trade liberalization is that it will increase incomes, and it is important to ask how that might affect sustainable development.

The literature surveyed shows that trade and trade liberalization may indeed lead to growth, and that growth will tend to increase incomes across the board. It will not, however, significantly change the incidence of income inequality within a country. But by increasing all incomes it will reduce the absolute numbers of poor. That said, in the short- to medium-term, the poor may disproportionately suffer the pains of transition associated with liberalization, particularly in the absence of adjustment programs or social safety nets.

Another important conclusion is that while there may be a relationship between openness to trade in goods and economic growth (and thereby to increased personal incomes) the link is uncertain, or at least much weaker, in the absence of appropriate supporting policies and institutions. These include policies to achieve macroeconomic stability, honest bureaucracy, rule of law, widespread health and education, and others of the freedoms we listed above. This underlines the need to pursue sustainable development as a coherent effort, rather than relying on partial approaches such as trade liberalization alone.

In the case of openness to investment, on the other hand, it seems clear that there is no demonstrated link between openness to investment and growth. Of the various types of investment, foreign direct investment (FDI) stands out as most likely to be significant, and there is some evidence that the combination of investment rules and free trade agreements may bring more investment. However, even increased FDI will not lead to increased growth absent the necessary domestic institutions. And inappropriate rules may lead to reduced ability to regulate in the public interest.

What lessons emerge from the exercise of relating trade and trade liberalization to our newly-defined sustainable development? First and foremost, the effort demonstrates the shocking poverty of our current thinking on trade and sustainable development, which generally assumes that growth in trade equates to development, and demands merely that it respect environmental sustainability. In the first place, it is uncertain that trade and trade liberalization actually result in increased income, especially for the poor who will feel the transition effects. But more important, Sen argues convincingly that development has many more dimensions than increased income. If we care about sustainable development, then we must examine trade and trade policies through a lens that looks at their impacts on a challenging range of freedoms, from ecological security to democracy to education to social cohesion. Even the most progressive of civil society actors in this area fall far short in this respect, choosing the conceptually easier path of trusting that growth in trade and income somehow translates into real development.

Second, the analysis identifies a clear (if challenging) domestic agenda for actions to help ensure that trade and trade liberalization lead to sustainable development. It emphasized again and again the importance of supportive domestic institutions and complementary domestic policies to ensuring this result. The types of institutions discussed include:

- strong regimes for environmental management;
- institutions for accountability, transparency and public input in decision-making;
- independent regulatory bodies to oversee infrastructure services;

- a competent, transparent, non-corrupt bureaucracy; and
- an independent judiciary with functional appeals mechanisms.

As well as these types of institutions, there are a number of complementary policies that countries—developing countries in particular—should by rights undertake should they wish to fully exploit the potential gains offered by trade reform:

- investment in health and education, with emphasis on accessibility;
- investment in infrastructure, particularly in the areas of water, transportation, communications and energy;
- commitment to macroeconomic stability, including stable exchange rates, low inflation, manageable debt; and
- pro-poor elements to various policies (banking sector, energy sector, transportation, education, etc.) to ensure the poor will benefit.

Obviously, these goals would challenge most OECD countries, much less the developing countries for which they are intended. A critical first need is for the country-level ability to assess domestic needs. A secondary need is for assistance on capacity building, coming bilaterally, regionally or through intergovernmental organizations, focussed on helping put the needed policies and institutions into place.

The third lesson of the analysis is the need for action at the international level, and specifically in the context of the trade negotiations (we focus on the WTO, but the lessons are broadly applicable). The key problem is this: the evidence shows that trade liberalization may only achieve sustainable development if the necessary complementary factors are in place domestically, and may even *impede* sustainable development in their absence. But in the context of WTO negotiations, the only piece of the puzzle on offer is trade liberalization; there is no vehicle for assessing or improving the state of member country institutions. How, then, is the WTO to achieve its mandate of fostering sustainable development?

The answer is that the WTO must change the way it engages countries in the system—particularly developing countries that will be more likely to lack the institutional prerequisites and the means for achieving them unilaterally. The principle that should guide the necessary reform is of *differentiated need*. The current system of special and differential treatment is in need of comprehensive overhaul to help tailor the rights and obligations adopted to the ability of developing countries to benefit. This will necessarily involve a more meaningful definition of developing countries in the system, will involve collaboration on a broader and more meaningful scale with outside institutions, and will involve abandoning the principle of reciprocity for something more functional in the achievement of what should be the system's main goal: sustainable development.

1.
Introduction

This paper is a thought piece that accepts the thinking of Amartya Sen on the subject of development, and asks what that new conception of development means for the subject of trade and sustainable development. That is, if we conceive of development as Sen does, how can this conception help us better define sustainable development? And what role is there for the trade regime and trade policy in the service of sustainable development so defined? Further, what would it mean to those non-governmental organizations (NGOs) who seek to harness international trade and investment in the service of sustainable development?

The paper begins by briefly outlining the current conceptions of the trade and sustainable development relationship, deriving from it an implicit definition of development (Section 2). It then explores the concept of development offered by Sen (Section 3), and forges a working definition of sustainable development by using an expanded version of the Sen framework (Sections 4 and 5). It then asks how trade and trade liberalization might affect sustainable development so defined, touching on a startlingly broad variety of interactions (Sections 6 and 7). In the final section, it draws some conclusions based on the analysis, asking what role there might be for trade policy, or other ancillary policies in achieving sustainable development, and noting the implications for NGOs working in this area.

At the outset it is worth briefly arguing that sustainable development is in fact an appropriate goal for trade policy. IISD (2001) makes this argument powerfully noting first that, at least in the WTO, NAFTA and EU contexts, the language of the agreements already commits to this, and second that no other goal makes much sense. It is difficult to argue that trade agreements should aim to foster more trade flows—trade flows are only a means to the end of improved well-being. And it is hard to argue against the sustainability criterion somehow defined (who wants short-lived development?), though the specifics of that definition are invariably subject to dispute.[3]

3 For example, in the sustainable development literature there are various strengths of sustainability defined, the strongest of which demands that natural capital stocks remain unchanged over time. A weaker definition allows natural capital to be depleted provided that technological progress renders the remaining stocks as useful as the stocks of the previous generation.

2.
Trade and Sustainable Development: Current Conceptions

2.1 Two basic models of trade and environment

There are two basic models of thinking about the trade-environment relationship on which most of the current, more nuanced, understandings are based, or from which they have evolved. The first, espoused mostly by environmental NGOs, paints trade liberalization as the great destroyer of environment. The second, promoted mostly by the community of economists and lawyers associated with the trade regime, imagines trade liberalization as the saviour of environment. As a background to the subsequent discussions, it is worth spending a little time fleshing out these admittedly stereotypical positions.

The Great Destroyer: According to this line of thinking, liberalized trade has a number of different sorts of environmental effects, all negative. There are two main types of linkage.

First, by achieving allocative efficiencies, trade liberalization increases the scale of economic activity (on this, both pro- and anti-trade schools of thought agree with few exceptions). Increased economic activity entails increased use of scarce natural resources, and more pollution associated with increased production, consumption and disposal of goods and services.

Second, trade liberalization involves increases in certain types of environmental problems directly associated with increased trade. The two main types of damage usually cited are increased pollution and resource use from transporting goods, and increased environmental and economic damage from imported invasive species.

Third, trade liberalization, by way of its constraints on the actions of governments, may reduce the policy space within which national governments attempt environmental management. This may occur directly, by way of prohibitions on certain types of regulations, or indirectly, by way of pressure from industries faced with foreign competition that enjoys a more lax regulatory environment.

The Saviour: According to this line of thinking, liberalized trade has a beneficial influence on environmental quality. The dynamics of the relationship can be sketched out as follows:

Trade liberalization	=	Economic growth (the result of increased trade)	=	Improved environmental quality

Trade liberalization leads to increased trade. Increased trade results in increased economic activity. Increased economic activity means higher incomes. People with higher incomes will be better able to afford, and more disposed to demand, higher environmental standards.

The income-environmental quality part of this relationship has been put forward as an empirical result—a relationship that has come to be known as the Environmental Kuznets' Curve (EKC). The original Kuznets' curve—an inverted-U shape—hypothesized income inequity first rising and then falling as per capita income increased. The environmental version of the curve shows environmental damage rising as income increases from a low level, then slowing its rate of increase, and finally falling again as income increases beyond a certain threshold level.[4]

There have been a number of criticisms of both models of the trade-environment relationship. The "Great Destroyer" model fails to account for the significant effects of increases in income argued by the pro-trade community. This is a particularly serious fault in the context of developing countries, where the argument can be compellingly made that growth is needed as a support for improved environmental management (as well as for other material ends).

The "Saviour" model, on the other hand, ignores the fact that some sorts of environmental damage are irreversible, and that many types of environmental damage are far cheaper to prevent than to clean up. Both of these facts argue against a "pollute today, clean up tomorrow" strategy. There has also been a wide discrediting of the EKC.[5] While it may be valid for those few pollutants that have local and immediate impacts, such as sulphur/acid rain, it does not hold true where the pollutants in question are deposited far from the source, or where the effects will mainly be felt at some point in the future. Pollutants such as greenhouse gases, for example, are positively correlated with income at *all* observed levels of income.

2.2 Evolved understanding: trade and sustainable development

In response to the criticisms catalogued above, the simplistic basic models of trade and environment have evolved considerably in recent years (though this paper will argue that they have not yet evolved enough). As argued by the International Institute for Sustainable Development (IISD) and others, the trade-environment

4 Grossman and Kruger (1993), in one of the pioneering EKC analyses, found the threshold level of annual income to be around US$5,000.

5 For a good review of the literature see Stern (2004).

relationship is better approached as a trade and *sustainable development* relationship.[6] Before advancing the justifications for and implications of this line of argument, we should pause to briefly define what is meant by sustainable development.

A working definition of sustainable development is given by the landmark 1987 report of the UN Commission on Environment and Development (the Brundtland Report): "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."[7] Brundtland argued, in particular, the overwhelming need for growth in developing countries, but at the same time noted that such growth needed to be of a different quality than that experienced by the countries of the OECD.

Widening the focus of the debates from trade and environment to trade and sustainable development is useful in at least three ways:

1. Politically, it is useful in that by combining the objectives of economic growth and environmental integrity, it allows a dialogue among the communities that was impossible within the framework of trade and environment.
2. The wider focus is also morally compelling, since it recognizes the legitimate aspirations of developing countries for growth and poverty reduction.
3. Finally the trade and sustainable development focus is instrumental, in that neither trade nor environment objectives are best served in the long run by the partial approaches argued above. Trade without environmental protection not only damages the environment, but can in the end undermine trade itself, as when fish stocks are exhausted by export-oriented fisheries. And focussing on environment without concern for the need for growth in developing countries may undermine environmental objectives by condemning the poor to remain poor, from which position they are less able to engage in domestic or global environmental protection.

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6 The earliest statement to this effect is Cosbey and Runnalls (1992). Also see IISD (2000).

7 WCED (1987): 42. The full definition, seldom quoted, continues: "It contains within it two key concepts: the concept of 'needs,' in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."

3.
A New Conception of Development: Sen's Framework

3.1 Sen's concept of development as freedom

In the previous section we adopted the Brundtland definition of sustainable development: "Development that meets the needs of the present without compromising the ability of future generations to meet their needs."

As a guide to defining *development*, this definition is not helpful. In fact this passage makes no attempt to do so; it merely qualifies how development can be made to be sustainable. Therefore, it is not a satisfactory definition of sustainable development. Of course, the themes covered in the Brundtland Report give us some indication of how the Commission conceived of development. But as it is central to our present analysis, it may be better to adopt an explicit and well-argued definition than to rely on such inferences.

Such a definition is found in the thinking of Nobel Laureate Amartya Sen.[8] The foundation of his thesis is a belief in individuals as the agents of positive change. The real challenge, he argues is to imbue individuals with freedoms of the type that will allow them to pursue that which they have cause to value.[9] He argues that "Greater freedom enhances the ability of people to help themselves and also to influence the world."[10] The process of achieving those freedoms is Sen's conception of development.

What types of freedom does Sen have in mind? The ability to be well nourished, for example, is a key freedom without which pursuit of most life paths is much more difficult. The same can be said of the ability to avoid preventable disease; the ability to read and write; the ability to participate in public discourse and have one's voice heard; freedom from discrimination, from crime, from ecological disasters, from premature mortality and so on.

These freedoms are of a type Sen calls *constitutive*, or valued in their own right—they constitute development. There are a wide number of such freedoms

8 See, in particular Sen (1999).

9 Of course, if the aspirations of an individual include behaviour that would harm others, this bad has to be weighed against the good freedom brings, and legal restrictions may be necessary.

10 Sen (1999), p. 18.

imaginable. In essence they are freedoms that allow individuals to pursue the type of life that they have reason to value.

Freedoms can also be *instrumental*, meaning they contribute to the achievement of constitutive freedoms. A key example is the freedom to sell one's labour on fair terms, which brings income, which can help achieve a number of constitutive freedoms. Note that many types of constitutive freedom also help achieve other constitutive freedoms, as when the education of oppressed people helps them to end discrimination. So freedoms can be both an end and a means to development.

Sen concentrates on five basic types of freedoms, though the list is not exclusive:

- *Political and participative freedoms/civil rights* (e.g., free speech, elections. Can be instrumental in forcing governments to attend to the needs of the people. Sen notes that there has never been a famine in a functioning democracy.)
- *Economic facilities* (e.g., opportunities for participating in trade and production, for selling one's labour or products on fair competitive terms, access to credit. Can be instrumental in creating income, which in turn helps achieve a number of other constitutive freedoms.)
- *Social opportunities* (e.g., access to adequate education and health facilities. Health facilities can be instrumental in avoiding preventable disease and premature mortality; education can be instrumental in empowering women to end discrimination, in participating in social discourse and democratic processes, in creating adequate income levels which in turn helps achieve a number of constitutive freedoms.)
- *Transparency guarantees* (e.g., openness in government and business, social trust. Can be instrumental in helping ensure that political freedoms are effectively exercised, that economic freedoms can be pursued in the context of fair competition.)
- *Protective security* (e.g., law and order, social safety net like unemployment insurance or the extended family support system. Can be instrumental in protecting the individual from harm, either through civil disorder or through economic misfortune.)

As noted above, these freedoms are intrinsically valuable in their own right (constitutive) but can also be instrumental, in the sense that each one is important in fostering the achievement of other freedoms—in other words, in the process of development. A democratic government is more likely to respond to the desires of its citizens in providing social opportunities and protective security, for example.[11] Another example is the importance of education in allowing people to make informed decisions about what it is that they actually want to pursue in life—a

11 Though there are important instances of non-democratic governments providing these types of services as well, including notably the public health and education regimes in China and Cuba.

dynamic particularly important to the impoverished, who by virtue of adaptive preferences will often be resigned to lowered ambitions.

Note that Sen advocates strongly for the need to pursue all of these freedoms simultaneously, in a broad multi-objective approach. Such an approach is in part justified by the intrinsic value of the various constitutive freedoms. It is further justified by the instrumental nature of the various freedoms—to the extent that they depend on one another for their achievement, they must all be pursued together.

Sen coins the term "functionings" to describe the various states of being that an individual may value. These can range from the very basic (being nourished, being free from avoidable disease) to the complex (having self-respect in the community).[12] An individual's ability to achieve various functionings Sen calls that individual's "capability."[13] Capabilities are a key part of Sen's framework; one way to think about his conception of development is that it is aimed at expanding the capabilities of individuals, through the provision of freedoms.

Individuals' capability sets are a function of both processes and endowments. Processes are the institutions that grant freedoms, such as voting rights, political or civil rights. Endowments are individuals' personal or social circumstances. The distinction is important from a policy perspective; despite having a strong system of public health care (an institution), for example, an individual's capabilities might be limited by a debilitating infirmity (a poor endowment). The various types of freedom can affect both processes and endowments.

A side note: it should be obvious that this concept of development is not something that only needs to take place in what we have traditionally called "developing countries." While it may be so also under Brundtland's definition, development according to Sen is very clearly a challenge for both developing and developed nations. Sen uses the black population of the United States—materially better off than most in developing countries, but in many ways with more unfreedoms[14]—as a frequent example of underdevelopment in expounding his thesis.

It is also clear that development according to Sen is not a strategy devised by experts and imposed on the passive populations of low-income countries. While there is a critically important role for governments and development agencies in achieving development, that role consists of freeing individuals to be the agents of their own development.[15]

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12 The concept of functionings is an interesting fit with the concept advanced by psychologist Abraham Maslow (1970) of a hierarchy of human needs, running from food, shelter and heat through to "self actualization," or full realization of individual potentials and desires.

13 Note that this concept allows us to distinguish between, say, a rich person who is fasting and a poor person who is hungry. Though they both may be achieving the same functioning, the former has a much better capability set.

14 See Sen (1999:22-23) on the widely differing mortality rates, for example.

15 It is interesting to note the parallels between this role and the role of the WTO, which in essence sees itself as freeing the agents of beneficial change (firms) from the strictures of unfair or unpredictable government regulation.

3.2 The role of income and markets in development

Before we go on to use Sen's definition of development to help redefine sustainable development, it might be useful to briefly explore how income, GDP growth and the market fit in his conception of development.

Possession of disposable income powerfully expands an individual's capability set. But it is only one of many desirable sources of freedom. Sen uses the example of a rich slave—who, while materially wealthy, is in an undesirable position—to illustrate the fact that income must be supplemented by other forms of freedom to result in real development. And he argues that there is no direct relationship between income and well-being that can apply to different individuals. A hundred dollars to a poor man, for example, will have a very different value than a hundred dollars to a millionaire.

As well as redefining development, Sen also asserts his own definition of poverty, rejecting the thesis that it is equivalent to low incomes. Rather, he defines it as capability deprivation, or in other words the lack of what he calls development. Conversely, poverty alleviation is the process of development. By this definition, a lack of income is one element of poverty, but only one of many. The essence of poverty, then, is a lack of capabilities—a lack of avenues by which to fulfil one's life objectives. Lack of education, discrimination or exposure to environmental degradation may be just as important in this deprivation as low levels of income.

It should be obvious that, given Sen's focus on individuals, equitable income distribution is of critical importance in ensuring that GDP growth actually contributes to development.

In Sen's view, the market has two roles that are both important to development. First, the market is a source of income generation, and income as we have noted is an important element of an individual's capability. Second, the ability to transact is a freedom in and of itself, and one which the majority of humanity seems to have reason to value. Free markets, all other things being equal, are better than controlled ones since they grant the freedom to participate. Even if the two systems were just as efficient at producing goods and services, most people would choose the former.

4.
Re-Defining Sustainable Development

If our objective is a new view of trade and sustainable development, we need to first arrive at some sort of working definition of sustainable development, based on Sen's conception of development. The discussion above has explored how he addresses social and economic concerns, but what is the role of sustainable development's third pillar: environment?

Pioneering work on this question has been done by Duraiappah (2001, 2004), who asks first how ecosystems fit in the conception of development enunciated by Sen, and how ecosystem services can contribute to development.

The simple answer to the question is that ecological security is one of the many freedoms that allow an individual to pursue that which she has reason to value. Ecosystem degradation can be an important source of "unfreedom":

- It can erode the resource base on which people directly depend, as in the depletion of a fish stock or a forest on which a community depends for its livelihood and food.
- It can destroy ecological services provided by nature, as when deforestation erodes the ability of a watershed to hold back rainwater, resulting in catastrophic flooding, or as when human-generated compounds destroy the ozone layer, subjecting the earth to more harmful ultraviolet radiation.
- It can cause socially disruptive adjustments, as in the imminent submersion (due to climate-change induced sea-level rise) of a number of populated South Pacific atolls.
- It can be health damaging, as when individuals are forced to breathe the pollution created by traffic and industry in their cities, or the smoke from large forest fires.

Duraiappah classifies ecological security as a sixth freedom, and argues that it is a fundamental constitutive and instrumental element of human well-being. This is in contrast to the approach of Sen who, when he talks about ecological security at all—and he seldom does—considers it a part of protective security.

Note that while Sen's conception of development can accommodate part of the current definition of sustainable development, it does lack an important element. While it makes the case for environmental protection as an important freedom, it does so only for the present generation (or for future generations only insofar as such provision is desirable to the present generation). This is not nearly so powerful a limitation as that imposed by the Brundtland definition of sustainable development, which asks that actions by the present generation not impede the ability of future generations to meet their own needs.

For our purposes, then, we will adopt Sen's definition of development as freedom and use it to flesh out the inadequate definition offered by Brundtland. That is, we will define sustainable development as Sen's conception of development (adding the concept of ecological security as argued by Duraiappah), but achieved in such a way that future generations' ability to achieve development is not compromised. Such a definition will still need to be elaborated in specific contexts to have any solid meaning, of course. The remainder of this paper attempts to do so in the specific context of trade and trade liberalization, asking how they might contribute to the achievement of sustainable development.

5.
Building the Framework

The previous section ended with a working definition of sustainable development: Sen's development framework, augmented by considerations for environmental sustainability. In this section we will build a framework for assessing how trade and trade liberalization might impact sustainable development so defined, asking for each factor what the potential impacts and impact pathways might be. In Section 6, below, we will apply the framework.

The aim of this exercise is not to answer in some generic fashion the question: is trade good or bad for sustainable development? The answer to this question depends, as we will see in Section 6, to a great extent on the specifics of the case at hand: the domestic institutions, the sector's market characteristics, etc. Rather, the intent here is to show how such an analysis might be conducted, were we to accept the definition of sustainable development that we have advanced. That is, now that we have defined sustainable development, how would we go about analyzing how it is impacted by trade and trade liberalization?

It should be strongly noted at the outset that the list of sustainable development constituents and determinants presented in this section is suggestive only, being neither exhaustive nor definitive. Sen correctly argues that real development priorities can only be determined in any particular context through open discussions among those involved. As such, the list is intended to serve a heuristic purpose, showing how we might undertake rigorous assessment of trade's sustainable development benefits and costs, and illustrating a broad multi-objective approach.

The list that follows was assembled by means of a thorough analysis of Sen's *Development as Freedom*. It is an assembly of all the instances in that book where Sen references specific determinants or constituents of development. As such, it is not necessarily exhaustive (the list of determinants, in particular, could be easily doubled). But it is complete enough to be illustrative of the broad-based nature of sustainable development as we have defined it.

The list is grouped according to the six freedoms on which we focussed above. A seventh category is created for those few constituents that are determined by factors falling under various different freedoms. The ability to be adequately nourished, for example, may be determined by income to buy food and/or agricultural inputs, access to credit (economic facilities), education on nutrition (social opportunities) or property rights.

1. Participative freedom
   - Being able to participate in governmental decisions that will impact quality of life. Determined by:
     - Literacy
     - Free media
     - Free speech
     - Democratic process
2. Economic facilities
   - Being able to sell products (including labour) in an open market system. Determined by:
     - Labour rights defined in law, enforced
     - Government-imposed barriers/aids to export, or to import of inputs
     - Access to credit
     - Contestability of markets
     - Communications, transportation infrastructure
   - Being able to be gainfully employed in a clean, safe and satisfying working environment. Determined by:
     - Environmental, health and safety laws, enforced
     - Adequate wages (minimum wage or high demand)
     - Adequate demand for labour (overall economy, population growth rate)
     - Adequate education
3. Social Opportunities
   - Being able to be educated. Determined by:
     - Accessibility of education systems
     - Quality of the education system
   - Freedom from avoidable disease, premature mortality. Determined by;
     - Accessibility of health care system
     - Quality of health care system
   - Being able to count on some type of social safety net. Determined by:
     - Stability of family relations, supportive social structures
     - Accessibility of public safety net
     - Quality of public safety net
4. Transparency guarantees
   - Freedom from corruption. Determined by:
     - Adequately paid civil service
     - Strong anti-corruption law, enforced (incl. whistleblower provisions)
     - Transparency, accountability of government operations
     - Design of government operations to limit opportunities for corruption

5. Protective security
   - Freedom from civil unrest, criminal violence. Determined by:
     - Good governance, tolerance of diversity of political views
     - Strong system of law enforcement
     - Freedom from the causes of crime (economic strength, education, discrimination, opportunity)
6. Ecological security
   - Freedom from avoidable disease, premature mortality, caused by disruptive environmental change. Determined by:
     - Adequate domestic and international commitments to environmental protection, human health and safety
     - Adequate enforcement, implementation of existing commitments
   - Being able to have adequate and clean drinking water. Determined by:
     - Adequate supply (population, efficiency of use, environmental conditions)
     - Adequate distribution systems
     - Adequate treatment systems (sewerage and drinking water)
     - Freedom from pollution (environmental laws existing, enforced)
7. Mixed
   - Being able to be adequately nourished. Determined by:
     - Income to buy food
     - Education on nutrition
     - Land to produce food, income/credit to purchase inputs, property rights
   - Freedom from discrimination. Determined by:
     - Strong laws on equality and rights, enforced
     - Education
     - Programs to increase opportunities for marginalized
   - Freedom from disruptive social change. Determined by:
     - Mechanisms for assisting adjustment
     - Participatory decision-making processes

Note that a number of the determinants for various constituents are the same. For example, education is listed as a determining factor in the achievement of participative freedoms, economic facilities and the (uncategorized) freedom from discrimination. Also, many of the freedoms are made up of very different types of constituents. For example, Social Opportunities cover education, health and the social safety net. These characteristics make the list as constituted a difficult one to subject to the type of analysis we have in mind.

A reformulated list, containing the same elements but reorganized, is presented below. It is split into eight categories, with each category determined by more or less homogenous elements, and with a minimum of overlap among the various categories. These eight categories will be the constituents and determinants of sustainable development for the purpose of our analysis. The next section is devoted to asking what impacts, positive or negative, trade or trade liberalization might have on them.

1. Education
   - High quality primary education, at a minimum (literacy, numeracy)
   - Training in democracy, social rights and obligations
   - Training on nutrition, fitness
2. Health
   - High quality primary care, at a minimum
   - Adequate food, potable water
3. Governance
   - Participative democratic process
   - Honest, efficient bureaucracy
   - Transparency, accountability of government operations
4. Legal protections
   - Independent and fair judiciary
   - Rights of expression, freedom of media
   - Rights to non-discrimination
   - Property rights
   - Competition law
   - Labour rights
5. Market opportunities
   - Lack of tariff and non-tariff barriers to movement of goods and services
   - Lack of barriers to entry of firms
   - Access to credit
   - Right to organize
   - Adequate wage levels
6. Public capital
   - Social safety net
   - Programs promoting opportunities for disadvantaged
   - Effective policing (incl. regulatory enforcement), national defence
   - Transportation infrastructure
   - Communications infrastructure
   - Energy infrastructure
   - Water supply and treatment infrastructure

7. Social capital
    - Stability of family relations, supportive social structures
    - Basic trust
    - Tolerance of diversity
8. Ecological capital
    - Stable climate (normal rainfall patterns, storm activity)
    - Adequate watershed function (slow filtration, water retention)
    - Adequate stocks of natural resources

6. Applying the Framework: Trade and Sustainable Development Linkages

The preceding section used concepts put forward by Sen to derive eight groups of constituents and determinants of sustainable development. In this section we will consider each grouping in turn, asking in what ways they might be affected by trade and trade liberalization. What follows is of necessity a brief overview of each set of linkages; there is enough literature on most of the issues identified to make each the subject of a survey in its own right.

The value of this exercise is in identifying and describing the linkages—the *impact pathways*—rather than in specifying the precise amplitude and characteristics of the impacts that those linkages engender. Indeed, going much further would be impossible at a general level, since one of the recurring themes in the analysis is that the individual circumstances of each case are critical to determining the final impact of trade and trade liberalization.

At the outset, however, we need to be specific about what we mean when we talk about trade and trade liberalization. It has become fashionable to use "trade" to mean everything that is negotiated in the World Trade Organization, or in bilateral or regional treaties that contain trade provisions. Clearly, though, such a definition embodies more than just trade. It also includes provisions on investment, intellectual property, government procurement, competition policy and elements of standard-setting that are as much related to domestic policy objectives as they are to international trade. In the analysis that follows, we will, where possible, be specific about those elements of the broader trade agenda under consideration. Where we speak just of trade and trade liberalization, we will mean to include reference to the elements of what has been called "deeper integration," though we do so in the knowledge that the convenience of the shorthand carries a price in terms of clarity.

6.1 Education and health

1. **Education**
    - High quality primary education, at a minimum (literacy, numeracy)
    - Training in democracy, social rights and obligations
    - Training on nutrition, fitness

2. **Health**
   - High quality primary care, at a minimum
   - Adequate food, potable water

Education is one of the key constitutive and instrumental freedoms. That is, people tend to value education in its own right, and education can be instrumental in helping people achieve other constitutive elements of sustainable development. Basic literacy, for example, makes it much easier to participate in a democratic process, and much easier to exploit the possibilities offered by economic facilities such as open markets. Education on nutrition allows the ability to enjoy better health.

Good health is similarly valued as intrinsically good and instrumental in allowing other sorts of freedoms, and is a particular concern of the poor who routinely suffer from ailments related to their difficult circumstances. The key issues in both areas are the quality of available services, and accessibility. Accessibility, of course, is a function of many factors, including the universality of any public system and, in the context of private systems, price levels relative to income levels. In the context of health, there may also be linkages related to access to adequate food and water, a theme we examine below after discussing the institutional linkages.

How might trade liberalization impact on the accessibility or quality of education or health care? A key potential impact pathway is the liberalization of trade in services. The delivery of both health care and education are services. The current draft of the WTO's General Agreement on Trade in Services (GATS) excludes from the Agreement's purview those services provided on a non-commercial basis (not in competition with the private sector) by government, which would seem to indicate that most government-funded systems of education and public health would not be covered. This is not a clear-cut question, however. Sinclair and Grieshaber-Otto (2002) argue that since the GATS does not define several key terms ("commercial" and "in competition with"), it will be left to dispute panels to define what is and is not covered. They note that in many countries government-provided services such as post-secondary education and health care are offered in modes that might be seen as competition with private providers such as training institutes and private clinics. Foreign service providers could use such situations to argue that education and health care services are, in fact, covered by GATS obligations.

Even if they are covered by the GATS, the GATS format does not mean that health and education will automatically be part of any given country's obligations. GATS commitments are made on an "opt-in" basis; countries undertake to liberalize trade in only those services they explicitly list. However, Mashayeki (2000) and UNDP (2003) argue that developing countries in particular will be forced under the current opt-in framework to undertake a number of commitments not necessarily in their best interest. This can come through "power bargaining" within the WTO negotiations in other areas of developing country interest, or from without. Alexander (2003) argues that World Bank lending conditions force WTO concessions without reciprocal WTO benefits, noting for example that the Bank will not make water infrastructure loans to countries that have not opened up their water services to privatization.

If education and health services *were* part of developing country obligations under GATS, what would be the implications? On the up side, there is the possibility that private investment in these sectors will bring a level of service that was impossible to attain otherwise; it is often difficult for municipalities, provinces and national governments to finance new infrastructure for health care, or to invest adequate resources in education.

On the down side are two types of concerns: quality and affordability of service; and policy space for regulation. On the first, in the context of water, Mann (2003), Oxfam (2002) and others have noted that privatization has not always gone well in practice, with the investors either not delivering services at the expected levels of quality, or with price hikes that have made the service inaccessible for an unacceptable portion of the population. Either of these scenarios is bad from the perspective of social opportunity. The problems seem to boil down to both a need by the investor for a too-rapid payback of its investment, and the inability of governments to write and/or enforce contracts and regulations that will oblige the investors to perform adequately.

Those concerned about "policy space" worry that, for one thing, any commitments made under GATS are irreversible (or reversible only at prohibitive cost). Moran (2002) argues (in the context of rules on investment in services) that developing countries in particular need flexibility to experiment with different types of regulatory frameworks, as many of them are only now in the process of developing such systems. If GATS-led privatization and liberalization are found to have undesirable impacts, for example by limiting the ability of governments to have fee schedules that subsidize provision of health care and education to the poor, there is no going back to a different system (at least, not without paying out prohibitively high penalties to the established private service providers). Or if a government decided to offer health care to its citizens by means of a public insurance model, it could be challenged by any private insurer to pay compensation for lost markets.[16]

There is also the concern that the current GATS negotiations may result in inappropriate limits to states' ability to regulate the investors. The current negotiations in the area of domestic regulation (Article VI:4) propose a "necessity test" for government regulation of covered services, demanding that any regulation be no more burdensome than necessary. WTO jurisprudence in the environmental context shows that this type of test can be prohibitively difficult to pass (Mann and Porter (2003)). And a recent WTO panel shocked many observers by ruling that the necessity test (in the context of telecommunications services) was broad enough to mean that if the objective had been accomplished in a less trade restrictive manner by other countries (never mind cultural differences, differences of existing

16 Peterson (2004) suggests that the prospects of having to pay off private insurers was one of the reasons behind the failure of one of Canada's provinces to move ahead with a planned implementation of public auto insurance.

infrastructure or capacity), a more trade restrictive manner for doing so would be by definition "unnecessary" (WTO (2004)). UNDP (2003:302) echoes these concerns, arguing that "The necessity test could limit governments' ability and flexibility to undertake policy and regulatory reform in important service sectors."

Another concern from the perspective of policy space is the possibility that broad definitions of the services covered—as proposed by some developed countries—will result in commitments that governments did not foresee at the time of opting in, either through lack of understanding or because the sectors evolve to include new types of services.

In the health and education sectors the threats to policy space are not perhaps so great as in sectors involving regulated monopolies, such as the water and energy sectors—there is less pressure to invest in the former, and there are fewer regulatory issues. But the concerns are still valid. If the GATS negotiations do entail a diminished provision of health and education services, particularly to the poor, the final result will be a diminishment of freedom.

Another impact pathway in the area of health is through the implementation of the obligations under the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights, and the corresponding obligations in bilateral and regional agreements. A regime of intellectual property rights creates a monopoly right, in effect, for the makers of pharmaceuticals, which will have impacts on the price and availability of medicinal drugs.

In countries that previously followed weak systems of intellectual property right (IPR) protection, prices would be expected to rise. Parthasarathi (1996) noted that in India, where pre-TRIPs protection was weak, the drugs Ranitinidine (Zantac) and Diclofenac Sodium (Voveran) sold for 57 and 68 times less, respectively, than they did in the United States. Any form of strengthened IPR regime will, therefore, necessarily involve a reduction in access to medicines, a burden falling proportionally harder on the poor. This particular impact pathway is not limited to the multilateral system; many countries that now adhere to the WTO TRIPs Agreement now face the prospect of negotiating stronger standards of protection under bilateral and regional deals (Vivas-Eugui, 2003).

Price increase is a matter of concern for developing countries, whose poor may not be able to afford protected drugs. For most basic drugs available in developing countries, the patents have expired in any case. But the concern is that new drugs, such as those for drug-resistant TB, and those used to treat HIV and AIDS victims, will not be available at an affordable price. In parts of Asia and Africa, where AIDS is at near-epidemic proportions, this is a problem. There have been some moves to increase the ability of the poor in developing countries to access affordable medicines (see Abbot, 2003), but these are by no means definitive, and some gains at the multilateral level are being busily surrendered in bilateral and regional negotiations (Vivas-Eugui, 2003).

IPRs can, of course, also work to make more new drugs available. The granting of special protection to innovators allows them to recoup the sizable investments they have made in bringing a drug to market. Only case-by-case analysis can tell whether this particular impact pathway is a net positive or negative for a particular country or medicine.

In the end, the final results may depend to a large extent on the shape of the regime adopted at the national level. Correa (2000) notes that, "although the TRIPs Agreement imposes various constraints, it leaves considerable room for countries to design their national laws to address public health concerns." He makes a number of recommendations for developing countries, but in the end argues that: "There is no single [ideal] patent system. While recognizing its international obligations, each country should shape its patent law according to its socio-economic needs and objectives, including in relation to public health." That is, the nature of trade's impacts on sustainable development will depend in large degree on the characteristics of the domestic regime, which should respond in turn to the particular circumstances of each country. This critical interaction of trade liberalization and domestic institutions is a theme to which we will return below.

People's health is not only a function of the health care system, of course. It is also a function of their behaviour, and primary among the behavioural determinants is intake of adequate food and safe water. The ability to access potable water is examined below in the context of services liberalization and infrastructural development. The ability to access adequate food is primarily an issue of income and prices. The discussion on how trade and trade liberalization affect personal income is postponed to Section 7, where it is considered in detail.

The price effects of trade and trade liberalization on traded agricultural goods are difficult to characterize at the general level. Lowering of tariffs and increases in market access will tend to lower prices in the importing countries. On the other hand, the removal of various forms of domestic support for agriculture—the two biggest elements are export credits and export subsidies, but there are a multitude of forms—will tend to increase world prices for the sectors affected. Even so, most forms of domestic support removal may not in fact have the predicted effects on prices, since farmers are reluctant to move out of farming in response to price signals, at least in the short term. The specifics of the liberalization efforts, as well as of market conditions, will therefore determine how trade and trade liberalization will affect the price of food.

6.2 Governance

3. Governance

- Participative democratic process
- Honest, efficient bureaucracy
- Transparency, accountability of government operations

Good governance is primarily an instrumental constituent of sustainable development, but is also important in it own right. Sen (1999:157) argues that the significance of democracy lies in its "intrinsic importance, its instrumental contributions [he notes that famines, for example, do not occur in democracies, where the government tends to respond to people's needs], and its constructive role in the creation of values and norms."

Democracy here is used in its broadest sense, to include the establishment of participatory mechanisms for public input on decisions that will affect them. So defined, democracy is not likely to be much affected by trade and trade liberalization. It has, in fact, been a point of contention with some that the international trade regimes in general do *not* mandate or even encourage public consultation on the making of trade policy at the domestic level.

However, other institutions of good governance, such as the efficiency and fairness of the bureaucracy and the transparency of government operations, might be affected. There are a number of institutions in the WTO law that call for transparency and fairness of conduct by governments. The Agreement on Technical Barriers to Trade, for example, calls for regulators to give fair notice of impending regulations and to provide for comment periods from those affected. Granted, these are guarantees to a small class of citizens (exporters) on a small set of matters (standards). But there may be some wider "cultural effects" on the bureaucracy that result from such requirements.

It should also be noted that the guarantees in question are due to foreign citizens only. But from the point of view of individual freedoms, it matters little whether the good governance in question is provided by domestic or foreign governments—the real question is the final impact on those freedoms.

Outside of the WTO, there are a number of liberalization agreements that offer similar guarantees of fairness to foreign investors. There are over 2,000 bilateral investment treaties (BITs) in existence, and there is a mushrooming number of regional or bilateral free trade agreements with investment provisions. In practically all of these there is provision for investors who are subject to unfair treatment to compel the host state to enter into binding arbitration. The provisions protecting investors include in most cases a guarantee of fair and equitable treatment (a standard that includes fairness of process), protections against expropriation and other protections.

The problem with these types of provisions is that they seem to actually go too far, and that the protections they provide are conferred on too few. Mann (forthcoming) argues that the evolving standard on fair and equitable treatment compels governments to grant an unreasonably high standard of treatment, particularly by the standards of developing countries with scarce resources. In a recent ruling against Ecuador, the Tribunal noted that the government had striven in good faith to treat the investor fairly (in a tax-related matter), but concluded that in the end this was not enough, and ordered compensation paid (London Court of Arbitration, 2004).

Further, the protections against expropriations have been used in some cases to argue that non-discriminatory good faith regulations, propounded for the public good in areas like environmental protection and health and safety, amount to expropriation because of their impacts on the profits of investors. Cosbey *et al.* (2004) survey a number of concerns of this type with the existing international investment agreements.

Finally, the protections offered are available only to investors; non-investor citizens are offered no fair treatment guarantees. Indeed, even domestic investors are not conferred the same protections as those given foreigners.

Another forum outside the WTO is the various regional integration agreements—trade agreements formed at the regional or bilateral level. Many of these are inspired by a desire to effect (or lock in) political as well as economic change. The MERCOSUR agreement of the Southern Cone countries of South America, for example, formally includes democracy as a condition of membership, and the bloc extended the same obligation to its Associate members.

In the end, however, the impacts of trade and trade liberalization on governance are likely to be small. Even in matters directly related to trade policy there is reluctance in the WTO to prescribe good governance: WTO law does not have even hortatory language urging countries to consult domestically in the process of trade policy formulation. Where there are similar prescriptions, such as in the TBT, they are frequently ignored (Rotherham, 2003), they benefit only a handful of citizens (investors and exporters, who tend to be well off) and, in the case of investment law, they may even go so far as to impede the ability of governments to regulate in the public interest (an argument explored in greater detail below).

6.3 Legal protections

4. **Legal protections**
    - Independent and fair judiciary
    - Rights of expression, freedom of media
    - Rights to non-discrimination
    - Property rights
    - Competition law
    - Labour rights

The legal protections covered under this category are, like the elements considered above, both constitutive elements of sustainable development, and instrumental in achieving it.

The first three types of protections are unlikely to be much affected by trade and trade liberalization. Trade law simply does not have many points of interaction with these types of legal freedoms and protections. Property rights are to some degree affected by trade agreements, in the sense that agreements on IPRs will affect rights to intellectual property. These linkages were discussed above. In any case, the types of protections offered by IPRs are, like the investor protections discussed above, perhaps *too* powerful, and too narrowly bestowed on particular groups within society.

Competition law is the subject of discussions at the multilateral level, and any successful completion of those discussions would influence competition law at the domestic level. A key link between competition law and sustainable development is through the ability of people to enter markets, an intrinsic freedom as noted above. Competition law is seen as a way to reduce barriers to market entry that vest in monopoly power. Another link is through the potential for curbing anti-competitive behaviour, such as predatory pricing and cartels that end up driving out local competition and hurting consumers through higher prices.

The final impacts of any sort of international agreement on competition law will depend greatly on the details of the agreement, and how the agreement is implemented at the national level. Singh and Dhumale (1999) argue strongly that the ideal policy at the domestic level is dictated by the country's level of development, its administrative capacity, and other factors that make each case unique. They assert, for example, that underdeveloped countries may need to promote industrial sectors by means of restricted competition, at least initially—a sort of infant industry argument.[17] And they assert that developed country regimes make little sense in countries without the capacity to enforce them. So while agreement on competition policy does have the potential for fostering sustainable development, it can also be argued that it has the potential to limit options for economic development in developing countries, if poorly cast. Some analysts (see, for example, Hoekman and Holmes (1999)) are skeptical that any WTO Agreement on competition policy would address international antitrust issues—the issues of prime interest to developing countries—, noting that the WTO is more about market access issues. They predict that a WTO Agreement would focus more on restricting domestic policy space to allow home-grown monopolies.

Labour rights may be affected by certain types of trade liberalization and trade policies. The bilateral and regional trade agreements signed by the U.S. since 1993 all incorporate or are associated with side agreements designed to strengthen domestic implementation of existing labour laws, and in some cases of international commitments. A handful of other countries have also incorporated labour provisions in trade agreements. Most of these agreements cover at a minimum: freedom of association, the right to form unions and bargain collectively, limitations on child labour, and a ban on forced labour.[18] The latter ban is also the subject of a general exception to WTO rules.

The enforcement commitments for these obligations run the gamut from hard law commitments enforceable in the agreements and punishable with trade sanctions, through to hortatory "best effort" commitments. In one instance—the U.S. Cambodia Textile Agreement—positive incentives are used to encourage improvements in labour standards. Monitoring is carried out by the ILO. Polaski (2004)

17 Indeed, they note, as does Chang (2002) that today's developed countries successfully used such strategies in the process of development.

18 These are core rights under the International Labour Organization (ILO), and countries are expected under customary law to observe them in any case, even if they are not signatories to the ILO conventions.

notes that this approach has seen positive results, and is widely regarded as successful. She is not as positive about the results of various programs of capacity building incorporated in the agreements, though she notes that some results have been achieved through the public complaint mechanisms built into the NAFTA side agreement on labour.

6.5 Market opportunities

5. Market opportunities

- Lack of tariff and non-tariff barriers to movement of goods and services
- Lack of barriers to entry of firms
- Access to credit
- Right to organize
- Adequate wage levels

Sen regards the ability to participate in markets as a constitutive freedom—something that people have reason to value doing. It can also, of course, be an important instrumental freedom if it increases income, particularly for the poor. He concentrates not only on markets for goods and services, but also labour markets—the ability to freely sell one's labour in a competitive market is an important freedom, again in both the instrumental and intrinsic senses.

Clearly, trade liberalization can contribute strongly to the lowering of tariff and non-tariff barriers to the movement of goods. In any analysis of trade's impacts on sustainable development it will be particularly important to ask how equitably these types of benefits are split between the poor and the rich. On that score the ongoing failure to address such issues as developed country tariff peaks and trade protection in such sectors as agriculture are unfortunate missed opportunities.

Another opportunity waiting for exploitation is the potential gain from reforming disciplines on contingent protection—anti-dumping measures, protection from import surges and the like. These are increasingly used as a method to protect domestic producers against the perils of foreign competition. While they are ostensibly aimed at preventing unfair trade practices by exporters, they too often end up unfairly penalizing those exporters instead. Nogues (2003) documents the way in which U.S. contingent protection was used against poor exporters of honey in Argentina and China, highlighting a number of ways in which the system works against poor and smaller producers.

Trade's potential contribution to the free entry of firms has been discussed above in the context of competition policy. Similarly, the contribution to the ability to freely organize (as labourers) was discussed above in the context of legal protections for labour rights.

Access to credit is an important part of market opportunity, since it plays such a strong role in facilitating entry of firms in the market. It is a particularly critical need for the poor, for whom the standard requirements of formal lenders—for collateral and security—are generally unmeetable.[19] In that context an important question—and still a matter of empirical uncertainty—is whether liberalization of financial services will increase or decrease the ease with which domestic small- and medium-scale borrowers can access funds. On the one hand, the ability of foreign-based banks to access international funds might mean increased ability to lend. On the other hand, such banks may be less interested in smaller loans than are domestic competitors. On this question it is undoubtedly true that the specific nature of the liberalization in question, and the associated domestic regulatory regime for financial services, will play a critical role for good or for bad. In a similar vein, UNDP (2003) argues the importance of strong regulatory institutions in preventing financial services liberalization from leading to financial crises.

6.5 Public capital

6. Public capital

- Social safety net
- Programs promoting opportunities for disadvantaged
- Effective policing (incl. regulatory enforcement), national defence
- Transportation infrastructure
- Communications infrastructure
- Energy infrastructure
- Water supply and treatment infrastructure

Public capital comprises a set of mostly instrumental elements of sustainable development—undertakings for the public good that are traditionally seen as part of the role of governments, or at least whose provision is essentially managed by government. Education and health care could, of course, fall under this category, but they are important enough as intrinsic elements of sustainable development to warrant the separate treatment they receive above.

It should be noted that many of these elements of sustainable development are likely to be affected by the financial resources at the disposal of national governments. This in turn may depend strongly on the rate of economic growth, and levels of national income, which may in turn be affected by trade and trade liberalization. These sorts of impacts are considered separately below, in Section 7.

The social safety net as conceived by Sen comprises not only government financial assistance for those who are unable to provide for themselves, but also consists of

19 These problems of access to credit for the poor are the impetus for such successful micro-credit schemes as the lending program of the Grameen Bank in Bangladesh.

the extended family and other networks on which individuals can rely in times of need. These non-governmental aspects of the social safety net are considered below.

The governmental aspect of the social safety net is not likely to be much affected by trade or trade liberalization. Nor is it likely that trade or trade liberalization would significantly impact programs aiming specifically to provide opportunities for the disadvantaged. Note, however, that some of these sorts of programs may run afoul of international investment agreements. Cho and Dubash (2003) cite the examples of programs in South Africa and Malaysia designed to give minorities and the oppressed a higher share of ownership in key national industries, arguing that a number of the provisions could have been challenged under international investment agreements as prohibited performance requirements.

Effective policing, including regulatory protection in the public interest, is one of the classic responsibilities of the state. It is also an important element of sustainable development as we have defined it, preventing a variety of unfreedoms such as vulnerability to crime and harm by the agency of others.

It was noted above that both investment liberalization and services trade liberalization might involve a shrinking of what has been called "policy space,"—the flexibility and scope to take regulatory and administrative measures in the public interest.

In the context of services, this concern stems from the need for regulatory oversight of such essential services as electricity generation and distribution, water treatment and distribution, health care and others. It was noted above that the GATS test of domestic regulation as "no more burdensome than necessary" might unduly limit the scope of government for appropriate regulation. The case of health and education are discussed above, and the cases of electricity, water and other regulated monopolies are discussed below.

Investment was also discussed above under the heading of Governance, where it was noted that the obligations in thousands of existing BITs might also serve to shrink policy space. The most serious criticism is of the provisions on expropriation, contained in practically all international investment agreements. Specifically, there has been much criticism of the argument, made in a number of cases and accepted in only a few to date, that a government regulation can be held to amount to expropriation as long as it has sufficient impact on an investment.[20] For example, in the ongoing (as of August 2004) case Methanex v. the United States of America, the investor argues that a government ban on the use of a polluting gasoline additive constitutes an expropriation of its investment in the production and distribution of a key ingredient of that additive.[21]

20 See *Metalclad Corp. v. Mexico*, Final Award, September 2, 2000, Case No. ARB(AF)/97/1, para. 111; and *Pope & Talbot v. Canada*, Interim Award on Merits, June 26, 2000, para. 102.

21 For thorough background information on this case see http://www.iisd.org/pdf/2003/trade_methanex_background.pdf.

Cosbey *et al.* (2004) argue that the key question in regard to regulatory expropriation is this: if a government measure is undertaken for a clear public welfare purpose (such as health and safety, environment, public morals or order, etc.), and is non-discriminatory, but has the effect of harming a foreign investor, are there any circumstances under which that measure can be held to be an indirect expropriation, for which the government must pay compensation? If so, what are those circumstances?

The concern is obvious: most people would agree that taxpayers should not be paying investors to alter behaviour that is contrary to the public interest. The sums involved can be significant, particularly for smaller economies; the Czech Republic increased its deficit by a third as a result of an expropriation award handed down in a single case.[22] A secondary concern is that regulators who are held liable for their impacts on investors will not regulate to the extent that they should (the *regulatory chill* argument).

Other substantive provisions found in investment agreements also give cause for concern, but expropriation is perhaps the most troubling. Both of the possibilities noted above would have significant impacts on the ability to regulate in the public interest, at least when it comes to foreign investors.

The remaining four determinants of sustainable development grouped under this heading—infrastructure for communications, transportation, energy, water—are similar in that they are typically publicly provided services. DFID (2002), which groups these types of infrastructure services together as "economic infrastructure," estimates that infrastructure investment in developing countries breaks down into 70 per cent government funding (including non-concessional borrowing), five per cent official development assistance funding and the remainder private funding.[23]

All four are important to sustainable development. Narayan (2000), in a survey of over 60,000 men and women in over 60 countries, found that "The lack of basic infrastructure—particularly roads, transportation and water—is seen as a defining characteristic of poverty." The links connecting trade and trade liberalization and these four types of infrastructure are similar, and we will deal with them at a general level before proceeding to look very briefly at the specifics of each sector in turn. At a general level, the impact pathways are at least threefold:

1. Liberalization may allow increased provision and heightened quality and efficiency of services;
2. Liberalization may result in investments that are wastefully inefficient, encourage corruption and result in environmental damage, and;

22 *Ronald S. Lauder v. the Czech Republic*, UNCITRAL Arbitration Proceedings Final Award. Note that this case was not related to the environment, but rather to the expropriation of a television broadcasting company.

23 More specifically, the DFID definition of economic infrastructure comprises infrastructure in energy, flood protection and drainage, irrigation, information and communications technologies (ICT), transport, water and sanitation.

3. Liberalization may shrink policy space for domestic regulation in the public interest.

DFID (2002) enumerates the potential benefits of the first type as follows:

- "Reducing transaction costs and facilitating trade flows within and across borders.
- Enabling economic actors—individuals, firms, governments—to respond to new types of demand in different places.
- Lowering the costs of inputs used in the production of almost all goods and services.
- Opening up new opportunities for entrepreneurs, or making existing businesses more profitable.
- Creating employment, including in public works (both as social protection and as a counter-cyclical policy in times of recession).
- Enhancing human capital, for example by improving access to schools and health centres.
- Improving environmental conditions, which link to improved livelihoods, better health and reduced vulnerability of the poor."

At the same time, there are countless cases of botched infrastructure development. Some of the more infamous are in the energy sector, where some mega-projects have left in their wake environmental degradation, unhappily resettled populations and economic waste. In surveying the experience to date, DFID (2002) concludes, as did the World Bank (1994) in its groundbreaking study, that the focus needs to be broadened to include the institutions for managing the investment, rather than just on the delivery of the goods. That is, liberalization and private investment can lead to either the first (positive) or the second (negative) type of impacts, and the key differences lie in such domestic institutions as accountability and transparency, regulatory capacity, environmental management capacity and so on. Also critically important is the model of privatization used; it can range from outright open competition to the private operation of a state-run monopoly.

The specific proposition that privatization increases efficiency is tricky in the context of most infrastructure services, as many are in fact regulated monopolies (such as those providing electricity and water distribution, postal, rail transport and other services). Vaughan (2003) argues, in the context of water services, that privatization in such cases places, if anything, a *greater* burden on regulatory and competition authorities in ensuring that "market oriented policies meet public objectives." This, he notes, has been difficult enough in developed countries' experiences of privatization, and may demand from developing countries something they are not equipped as yet to supply. Some of the most difficult of the many challenges in this context are those related to universal coverage of services—ensuring that the poorest of the poor are covered.

The third pathway by which liberalization may impact the quality and accessibility of economic infrastructure is through the potential of the law in question to limit the sovereign ability to regulate in the public interest. It has already been noted above that international agreements on investment and on services liberalization impose limits on government behaviour, in the form of obligations to investors. In the context of services, as has also been noted, the GATS requirement that domestic regulations be no more burdensome than necessary can lead to greatly curtailed options for regulators and policy-makers. In the context of investment agreements, it has been noted that obligations on expropriation, among others, may do the same. Some examples of these impacts are offered below in the context of specific sectors.

A final consideration: from the perspective of Sen's framework it matters not just whether the infrastructure is built, but also whether people have access to it, whether it increases their capabilities. Pouliquen (2000) argues strongly that it does not benefit the poor to build a transportation system or an electrical grid if the services are priced beyond their means. As such, the final impact on sustainable development of liberalization in these sectors will depend on the domestic systems in place for pricing, universality of coverage and basic location. If the goal is sustainable development, pro-poor policies must guide the development of infrastructure from the outset.

Transportation: Transportation infrastructure is, at its most basic level, a system of roadways, and at it most complex can comprise airports, container ports, mass urban transit systems and other elements. An adequate transportation infrastructure is a constitutive element of sustainable development—the ability to move about is an important freedom to many—, but it also plays an important instrumental role. Proper transportation infrastructure allows people to travel to hospitals, to their jobs, to schools. It allows people's goods to get to domestic and international markets. The impact pathways for this particular type of infrastructure are limited, however, since the prospects of significant private investment in the sector are low (Estache and Serebrisky (2004)). Where such investment does occur, the authors note that effective regulatory and competition policy, requiring a good deal of political strength and capacity, are key in sustaining reforms and wringing out the potential benefits of FDI for the benefit of the people served.

Communications: Communication is an important human need, valued intrinsically as well as being an instrumental factor in sustainable development. Burr (2000) has catalogued the various development benefits brought about by the Grameen Bank's program of spreading mobile phone technology in rural Bangladesh, including significant increases in the area of market opportunity freedoms.

Communications infrastructure investment is not as likely to be government-led as it was in the past. Fink *et al.* (2002) note that by 1999 "one-quarter of [Sub-Saharan African] countries, about half of the Asian countries, and two-thirds of the [Latin American and Caribbean] countries in our sample had at least partially privatized their incumbent phone operators." Technology is changing rapidly as well, with many countries now having more mobile phone subscribers than subscribers to land line service. Fink et al. found that both privatization and openness to competition significantly increased what they call "teledensity." They also found that the nature of domestic policies mattered: an independent regulator was significant in spreading the technology, and the sequencing of reform was also important. In other words, there is significant potential for liberalization in this sector to contribute to sustainable development, but the nature of the domestic reforms will affect the final impacts.

A recent WTO ruling (Mexico – Telecoms (WTO (2004))) raises concerns about the loss of policy space in the telecommunications sector. Although there is language in the GATS Telecommunications Reference Paper—the blueprint for the sectoral liberalization—allowing governments to take measures to ensure universal access to services and infrastructure development, Gould (2004) argues that the Panel ruling in effect renders that language useless. It finds, for example, that Mexico cannot force private investors to cross subsidize the existing universal network.[24] The language and interpretation of the agreement thus has important implications for the final impacts of liberalization on sustainable development in this sector.

Energy: Adequate energy is not valued in its own right, but it is a powerful instrumental element of sustainable development. Energy, produced in the form of electricity, or via natural gas, petroleum products, fuelwood or biomass, allows people to cook, to travel, to have lights and communications technology. It also provides the opportunity to invest in energy-using employment-generating initiatives. Energy infrastructure is usually geared toward providing electricity or, increasingly, natural gas to a country's population.

Energy infrastructure projects usually have significant impacts. The World Commission on Dams (2000), for example, enumerates the possible costs of large hydroelectric projects as "debt burden, cost overruns, displacement and impoverishment of people, destruction of important ecosystems and fishery resources, and the inequitable sharing of costs and benefits." Other types of energy infrastructure impose similar costs specific to their own sectors, but the key concern is the sheer scale of the projects and any related costs.

The linkages to trade and trade liberalization here are not direct, but are important. It may be that investment liberalization agreements lead to increases in this type of investment. If so, then we arrive yet again at the proposition laid out several times in the preceding analysis: the impacts of liberalization on sustainable development will depend on the quality of the domestic institutions for handling the investment in question. If there exists a strong regime for environmental management, strong institutions for transparency, an open process of stakeholder input and so on, then it is possible that the infrastructure will minimal environmental and social impacts. But frequently this is not the case. In the environmental context, for example, DFID (2002) finds as a "key lesson" of its evaluation of infrastructure projects, that

24 The ruling will almost certainly be appealed, in what will be a precedent-setting case.

"though environmental impact assessments are routinely completed, there is still inadequate attention paid to the impact of infrastructure projects on the environment."

The second type of linkage has nothing to do with the impacts of the project itself, but rather with the regulatory impacts of the liberalization agreement that allows the investment, or that governs the provision of the service. We should start by noting that national energy policies often aim for wider objectives than the simple provision of energy. Cosbey (1992) observes that a number of social development objectives will also be involved, from regional development objectives in exploiting the energy resources, to objectives related to universality of service and poverty reduction. The achievement of such objectives may be one of the casualties of liberalization agreements that limit the domestic regulatory capacity of governments—a phenomenon discussed in detail above. Cho and Dubash (2003) offer examples of the types of pro-poor cross-subsidy or preference policies that would be difficult to force on foreign providers given the rights those investors have under typical investment agreements. For example, as part of Denmark's strategy to encourage the growth of the domestic wind energy sector, the government offered a preferred purchase price to wind power produced by local cooperatives. This was in part to break down local resistance to the siting of turbines, and in part to encourage local development. Such preferential tariff structures would likely be breaches of obligations for non-discriminatory treatment of foreign investors under the terms of most international investment agreements.

The Mexican Telecoms case referred to above (WTO 2004) gives rise to other types of concerns: national governments may be prohibited from requiring that distributors of electricity achieve high connection rates, or that they use the rates of urban consumers to subsidize the rural rates (the latter being a more costly clientele to service). Such challenges to sovereign policy space could come from either services agreements or investment agreements.

Water supply and treatment: Adequate water supply and treatment are basic constitutive freedoms, and increasing the number of people with sustainable access to safe drinking water and basic sanitation is one of the Millennium Goal targets. At present roughly one billion people lack access to safe drinking water, and more than twice that number do not have access to basic sanitation. The WHO (2004) estimates that almost 4,000 children under five die each day from diseases caused by dirty water and poor sanitation.

The linkages in this sector are similar to those discussed in various places above. Liberalization of investment rules and of water distribution and treatment as service sectors may lead to increased investment, which may lead to increased accessibility and quality of service. *The Economist* (2004) argues strongly that private sector investment is beneficial, and needed in greater amounts. Currently the private sector funds some 10 per cent of the annual $15 billion layout for water infrastructure.

McIntosh (2003), however, drawing the lessons of an extensive survey of Asian experiences, argues that privatization alone is not a panacea, either in terms of bringing in needed funding, or of increasing efficiency. In the same vein, a survey of three Latin American countries showed no observable difference in connection rates between those locations with private sector participation and those without (Clarke *et al.*, 2004). McIntosh asserts the central importance of domestic factors such as strong independent regulatory bodies, transparency of process, competition in the privatization process and (critically important) the political will and ability to raise water tariffs.

The linkages here are hardly clear-cut, and seem to depend again on the particular circumstances of the case, including importantly the strength of various domestic institutions. The uncertainty about the results of investment is compounded by the basic uncertainty about the links between investment liberalization agreements and increased foreign direct investment, an issue tackled in depth in Section 7.

The second sort of linkage in this sector is via regulatory impacts from investment and services liberalization agreements. Mann (2003) argues that investment law, through its obligations on expropriation, fair and equitable treatment and others, can seriously limit the state's ability to regulate in the public interest:

> "While a state will not lose jurisdiction in a strict legal sense over its water, it is clear that there is a significant risk of existing agreements placing very strong limits on how that jurisdiction is used, and of new agreements placing even greater restrictions. These agreements can therefore have significant impacts on local and regional water management decisions, and on traditional users of water resources."

He argues that the key priority, both in limiting the potential negative impacts of investment treaties and more broadly in increasing access to and quality of service, is a sound domestic water management framework, including its legal and administrative components. Such a regime needs to be in place, he asserts, *before* a country undertakes the obligations found in international investment agreements—obligations that might lock in place any existing institutional weaknesses by making states pay prohibitively costly compensation for any meaningful regulatory evolution.

Another clear implication of the experience to date with water-based investor-state arbitrations is that the host states often lack the capacity to write sound contracts, even in such basic areas as specifying performance requirements and defining the scope for tariff increases. The result is, at best, a misunderstanding between the investor and state as to the rights and obligations spelled out in the agreement, and at worst a state-level vulnerability to costly binding arbitration.

6.6 Social capital

7. **Social capital**
    - Stability of family relations, supportive social structures
    - Basic trust of others
    - Tolerance of diversity

There is no agreed definition for social capital in the literature. Most analysts define it as the trust relationships or norms of action that bind people connected in common purpose. Fukayama (1999) dwells on the norms of action themselves, while Putnam (2000) focuses on the observance of those norms in the form of civil social activities.

The three elements of social capital on which we will centre this discussion are:

- The social structures in place (or, as per Fukayama, the protocols followed) to assist those in need of help. These can range from the network of the extended family to networks of food banks and charities.
- The basic trust in fellow members of society to deal with people fairly, without malice or avarice.
- Norms of conduct that tolerate—even celebrate—diversity of gender, race, sexual orientation and other social characteristics and behaviours.

These are all constituent and instrumental elements of sustainable development as we have defined it, increasing people's capabilities in obvious ways. A key feature of social capital is that it decreases what economists call transaction costs. There is, for example, no need to hire a lawyer to ensure that a father-son agreement on borrowing the car is loophole free, or to hire enforcers of the agreement's provisions.

Research on social capital is in its infancy, but several analysts have noted marked evidence of its decline. Putnam (2000) catalogues an impressive array of statistics to demonstrate a loss of social capital in the U.S. over the last 40 years. Narayan (2000), based on interviews with tens of thousands of poor people world wide, concludes that they perceive their social capital (that with which they survive in the absence of material assets) as "crumbling."

There is little in the way of research exploring the possible links between trade and trade liberalization and social capital. At the most superficial level we could say there is an inverse relationship between the two: over the last 40 years the former has been steadily increasing as the latter has been steadily eroding. But the evidence of the erosion of social capital is not thorough, and even if it were, the evidence of any link between the two trends is non-existent.

Still, it is an intriguing area for future research. It may be that the rapid introduction of capitalist norms and institutions—a necessary complement to and part of liberalization—has had a disrupting effect on the cooperative norms that have been built up over time in the form of social capital. An interesting framework for analysis of this hypothesis is offered by Gunderson and Holling (2002), who strive to create a framework for analyzing the cause and nature of change in complex adaptive systems, based on ecological science but applicable to systems change spanning the ecological, economic and social spheres.

6.7 Ecological capital

8. Ecological Capital
- Stable climate (normal rainfall patterns, storm activity)
- Adequate watershed function (slow filtration, water retention)
- Adequate stocks of natural resources

Ecological capital can be, as argued above, both an instrumental and a constitutive element of sustainable development. Its constitutive role is particularly important to quality of life; in the absence of such services as stable climate and adequate watershed function, mankind is destined to be pummelled by a larger number of ecological catastrophes such as floods, landslides, droughts, intense storms and other extreme weather events. Changed environmental patterns and natural conditions (such as increasingly frequent aberrant systems such as El Niño) wreak havoc on established human systems, with attendant social strife.

Less acute, but perhaps more significant for human well-being, is the role played by a stable natural environment as the basis for human economic endeavour. Renewable natural stocks such as fisheries and forests, if overexploited, cannot continue to support human economies and livelihoods. Also playing a supportive role are various very slowly renewing stocks such as erodable soils and underground aquifers which, if mined at greater than the rate of growth (as they currently are), may as well be non-renewable. Finally, non-renewable stocks such as oil may also be important, if technology does not provide us with adequate substitutes in a timely manner.

What are the links between trade liberalization and ecological capital? There is a wealth of research aimed at defining the trade-environment relationship.[25] Cosbey and von Moltke (2003) cite over 300 articles published in 2001–2002 alone. In part this derives from the salience of the theme, but it also testifies to the diversity of topics covered. We have already noted that "trade" is usually broadly cast to mean "all those elements covered by agreements such as the WTO," including trade in goods and services, standards, intellectual property rights, investment, government procurement, and so on. Environment is just as broadly cast, covering environmental law, environmental policy-making and governance, and the myriad different sorts of environmental threats from local to global. The result is a rather unwieldy matrix that defies the simple characterization it is sometimes given. In the interests of brevity and focus this section does not treat all the possible linkages, but describes the most important in terms of ecological impact.

The predominance of the literature focuses on trade in goods. There has been a great deal of case study work identifying ways in which goods trade liberalization

25 For an excellent overview of the range of topics involved, see IISD/UNEP (2000).

can impact negatively on the environment.[26] Many of the impacts identified seem to be attributable to the scale effects of trade—the environmental impacts that come with the increased economic activity brought by trade liberalization, or increased export flows.[27]

Goods trade liberalization can also impact the environment by altering the structure of an economy, tilting increased production toward those sectors in which a country has comparative advantage. If these sectors are relatively polluting or relatively clean, environmental integrity overall will be affected. Schaper (1999), for example, documents the shift toward extractive industries in Chile under liberalization, noting the attendant negative environmental impacts.

A common element of these types of cases is the failure of domestic environmental regulatory regimes to prevent the environmental damage in question. That is, with adequate environmental regulations it is conceivable that economic growth would have negligible, or at least acceptable, levels of scale and structural type environmental impacts. Typically there are either inadequate laws in place or, more frequently, there is poor enforcement of the existing laws (Cosbey, 2004).

A number of studies have focussed on the potential environmental benefits of liberalized trade in agricultural goods.[28] In this context, trade liberalization means primarily reduced domestic support in the form of subsidies, export credits and other means by which developed countries support their domestic agricultural production. The linkage posited here is as follows: agriculture in developing countries is less polluting, since it uses fewer chemical inputs. That same agriculture is also more efficient than the agricultural production in developed countries. Therefore, a reduction in support for the latter would increase the world share of agricultural production occupied by the former, with attendant environmental benefits.

It may be possible that this dynamic will hold true, but it must be noted that it is a gross simplification of an extremely complex relationship that will differ not only from country to country, but from farm operation to farm operation. Developing country farmers may increase their use of inputs in response to price increases. Developed country farmers will not simply stop producing in response to decreased support, and may further stress their own ecosystems in the process of their response. Many existing types of support, as under the EU's Common Agricultural Programme, while they may be trade-distorting, are premised on good environmental stewardship. In developing countries increased prices may result in

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26 See, for example, the body of work by IISD's Trade Knowledge Network at http://www.tradeknowledgenetwork.net. Also see UNEP's numerous case studies at http://www.unep.ch/etu/etp/acts/capbld/cp.htm

27 It is worth noting that this linkage, if extrapolated from case studies to a more general scenario, makes assumptions about the trade-growth relationship surveyed in greater depth below. That is, it is in fact an empirical question whether trade liberalization brings about economic growth.

28 See, for example, Chudnovsky *et al.* (1999), Mayrand *et al.* (2003).

extensive, rather than intensive, methods of increasing production, increasing land under cultivation with potentially environmental damaging impacts. Of course, fully exploiting the possible gains offered by any reduction in developed country support will depend on strong institutions in both developing developed countries, devoted to cultivating best practice and protecting the environment.

Liberalized trade in goods may also bring new, less environmentally destructive, technologies. Cap *et al.* (1999) found that the Argentinean paper sector made significant environmental improvements following liberalization in the 1990s, albeit centred on cost-saving energy efficiency rather than environmental performance. The impetus was increased foreign competition and an improved access to imported technologies.

Vaughan (2002) and others have also suggested that liberalized trade in environmental goods (and services) might bring environmental benefits, increasing the diffusion of technologies that can remediate environmental damage and resulting in cleaner production methods. This relationship seems relatively uncomplicated, though there is still some debate in the WTO context over exactly how to define environmental goods. From an environmental perspective, a broader definition is probably desirable.

Overall, it is not possible to say at a general level how trade liberalization will affect ecological capital. The specifics of the impacts in any case are determined by the sector, the market characteristics both nationally and globally, the existing regimes for environmental protection, the ecosystem features and other elements that will make each case unique.

7. Income as Instrumental Freedom, and the Roles of Trade and Investment

The preceding section surveyed a large number of ways in which trade and trade liberalization were linked to sustainable development. This section addresses three questions that underlie many of those linkages:

1. Do investment liberalization agreements actually increase foreign direct investment?
2. Does economic openness, the result of trade liberalization, increase aggregate income or government revenues?
3. If aggregate income is increased, how equitably is it distributed?

It may not be immediately obvious how these questions underpin the linkages surveyed in the previous section, and the answer varies depending on whether we are talking about trade or investment. In the context of investment, a number of linkages depended on a dynamic whereby investment liberalization agreements actually attracted investment. So, for example, in the case of infrastructure, it was posited that liberalization of investment might have certain impacts related to the increased investment it would bring. But we postponed until later asking the question: do investment agreements actually attract investment? We will address that question in this section.

In the context of trade, there are two potentially relevant dynamics. First, the final impacts of many of the linkages surveyed above depended on the state of domestic institutions that require government financing, such as regimes for environmental management, the bureaucracy, regulatory bodies, the judiciary, education and health service, various types of infrastructure and so on. It is, therefore, salient to ask whether trade and trade liberalization have any predictable or potential impacts on government treasuries.

The second dynamic works through the potential increases in economic growth and, through it, in personal income that might result from trade and trade liberalization. The theory of comparative advantage predicts that, given certain assumptions, trade liberalization can produce allocative efficiencies that will result in higher aggregate incomes. The interesting empirical questions are, first are those assumptions correct and, second, if there is an increase in aggregate income, is that income equitably distributed? We should be particularly interested in knowing how trade and trade liberalization affects the poor; what share do they get of the spoils of any growth that is generated?

7.1 Do investment agreements attract investment?

Mann and Cosbey (2004) survey the literature on this question, and find that the answer depends on the type of agreement in question. In the case of bilateral investment treaties—agreements focussing only on investment—the answer seems to be no. A rudimentary analysis by UNCTAD (1998) and a much more thorough analysis by Hallward-Driemeier (2003) both found that BITs had insignificant effects on FDI flows.

A number of studies, on the other hand, find that FDI is affected by broader trade agreements, most of which contain some sort of investment provisions. Leadermann (2003) yields typical results in this regard, finding that the most important factors in attracting FDI are integrated market size, host country export levels, the expectation of a free trade agreement, and host country characteristics such as governmental stability and law and order. The first factor seems to explain much of the difference between the positive impacts of trade agreements and the lack of impacts found for BITs: the trade agreements instantly create a larger integrated market, which attracts investment to service that market.

In other words, it is the trade agreements, rather than the investment agreements per se, that seems to attract foreign direct investment. If we cared to separate out these effects more precisely, we would have to compare the performance of trade agreements with weak or non-existent investor protection (most of the pre-Millennial agreements) with those incorporating strong investor protection. The only one of the latter with enough history to bear analysis is NAFTA.

Here the evidence is mixed, and not as strong as the evidence of effects from trade agreements world wide. While there are a number of studies that show an increase in FDI as a result of NAFTA (see, for example, Waldkirch (2001) and Stevens (1998)) they rely on data too close to the date of entry into force, not taking into account more recent trends to decreased FDI in Mexico.

What does all this mean for the linkages posited above? It means the links that depend on investment agreements bringing in new investment—the infrastructure services linkages—will be tenuous at best. On the other hand, those *trade* agreements that greatly increase trade flows (such as regional or bilateral agreements) may also bring in greater investment flows. But theory tells us that these flows are mostly responding to an augmented market size enclosed within a wall of tariff or non-tariff barriers (*horizontal* investment), and this is not the type of investment that normally flows to infrastructure development.

Note that we frequently described another type of linkage flowing from investment agreements: regulatory impacts, or restricted policy space to regulate in the public interest. These linkages are not weakened by the finding that FDI flows do not respond to investment agreements.

7.2 Does trade or trade liberalization affect government revenues?

The linkages surveyed above frequently ended up by noting that the final impact of trade or trade liberalization would be determined by the strength of existing domestic institutions. Often the strength of these institutions will be strongly determined by the state of the government's finances. Many developing countries, and not a few developed ones, find it fiscally difficult to run an environment ministry, foster a strong justice system, establish strong independent regulatory bodies for utilities, establish a competition authority and so on. It matters, then, what the impacts of trade and trade liberalization will be for government revenues.

Inasmuch as trade liberalization entails tariff reduction, the immediate result for governments is obvious. Konan and Maskus (1999) observe that, "as governments lose revenues from liberalized trade taxes they may be forced to raise domestic tax rates in compensation. The latter possibility is significant in developing economies, which tend to rely heavily on tariff revenues to finance central-government programs." Other things being equal, government revenues will fall as a result of trade liberalization. A more long-term dynamic scenario may see those revenues replenished in part by royalties from new investments, and from existing taxes on a rising economic base. But these are uncertain and more distant prospects than the immediate loss of revenues from tariffs.

The final impact on the poor will be a function of the nature of any compensatory changes to the tax system, and of the nature of any government spending that might be displaced by revenue shortfalls.

7.3 Trade and trade liberalization, growth and income

Sen puts little emphasis on material wealth, but does note that it can be instrumental in achieving various freedoms. This lack of emphasis is undoubtedly in part a reaction to the traditional and widely held conception of poverty that holds it to be a lack of income. The point that lack of income is not poverty is well taken. Sen's central thesis is, in fact, that poverty is a lack of *capabilities*, not of income. Narayan (2000) in his survey of some 60,000 poor people's concerns does not find lack of income prominent among them, but rather finds that they want roads, health care, drinkable water, an honest and respectful bureaucracy, and so on.

Yet it is possible to go too far in denying the importance of income, which can be used to purchase health care, education, drinking water, adequate food and other important elements of sustainable development. Income can be an important cross-cutting instrumental element in many of the linkages described above. And rising levels of aggregate income are one of the key reputed benefits of trade and trade liberalization, though we need to be concerned as well about the equitable distribution of that income.

What follows is a survey of the literature dealing with trade and trade liberalization (often referred to in the literature as openness to trade), and economic growth. This by itself tells us nothing about the distribution of the growth in question, and so we end the analysis by asking what the literature can tell us about equity and openness to trade. Because the lessons of the literature are not clear cut, and because this is an important sub-theme to the linkages we have discussed, this section is somewhat long and technical. Some readers may want to skip straight to the conclusions at the end of the section.

The accepted wisdom is that the empirical studies are in strong agreement: there is a positive and significant relationship between openness to trade (variously defined) and economic growth. Watkins (2002) sums up this sentiment thus:

> "George Bernard Shaw, the Irish playwright … wrote: 'If all economists were laid end to end, they wouldn't reach a conclusion.' If he were writing today, he would be forced to concede the rider 'unless they were discussing the benefits for the poor of openness to trade.'"

But a closer look at the literature yields a more nuanced picture. The first necessary complexity is to separate out the empirical results on openness to *merchandise trade* and other types of openness. In addition to openness to trade in goods, we will focus below on openness to investment/financial liberalization and openness to trade in services. The second complexity is to look at some of the methodological problems faced by the researchers in this area. And the third is to dig more deeply into the literature on which the openness-growth nostrum is founded, to find the caveats that the authors themselves place on their conclusions. As noted above, we will end the analysis with a look at what we know about the equitable distribution of whatever gains may come from openness to trade.

7.3.1 Investment openness/financial liberalization

What does the literature says about investment/financial liberalization and growth? At the outset, we need to unpack the broad term "investment." Investment can take many forms, from short-term speculative currency transactions to long-term greenfield foreign direct investment (FDI). The consensus on the former seems to be that it offers little of value beyond the limited role it can play in correcting inappropriate exchange rates, but that it has serious downside risks—particularly in increasing the probability of financial crises precipitated by large-scale capital flight.[29] It is worth noting here, because of the importance the analysis below attaches to strong institutions that, even in the case of such hot money flows, strong institutions such as a properly regulated banking sector can make a great difference.[30]

In a recent survey of the prominent empirical evidence on all types of investment flows, Prasad *et al.* (2003: 23) find that "it has proven difficult to empirically identify a strong and robust causal relationship between financial integration and

29 Easterly and Kraay (1999).

growth." They explain this by hypothesizing the importance of "social infrastructure" (such as governance, rule of law, respect for property rights) as a necessary complement to openness. Cosbey (2002) makes a similar argument, based on the results of a number of surveys of investors and potential investors.

There is a potentially important addendum to these results: Prasad *et al.* found that when the varieties of investment are disaggregated it seems that foreign direct investment (FDI), alone among the types of investment, might be associated with higher growth. Even this finding, however, is subject to question; they base this conclusion on a limited number of studies, at least one of which requires other factors (i.e., sufficient human capital) to derive the result.

Carkovic and Levine (2002), in an analysis of data from large number of countries, took particular pains to control for the problems of endogeneity—the prospect that growth and other related factors (such as human capital) in country are what drives FDI, rather than the other way around. Their results indicate that there is no relationship between FDI and economic growth that is independent of other determinants, such as trade openness and black market premiums (an indicator that could be interpreted as testifying to the weakness of macroeconomic management). That is, the observed correlation between FDI and growth was not a case of the former causing the latter, but rather FDI was being attracted by factors related to growth.

Gallagher and Zarsky (2004) surveyed twelve studies linking FDI and growth, and found that the clear majority (eight of 12) concluded "it depends." The deciding factors seemed to be domestic circumstances (the achievement, of example, of a certain level of development), domestic institutions or domestic policies.

Agosin and Mayer (2000), in a recent exhaustive survey of developing country experience with FDI from 1970 to 1996 found that in many cases it actually crowded out domestic investment. The effect was particularly pronounced in Latin America but the reverse was true in South-East Asia, and the authors speculate that the difference might be an inclination for choosiness, and mechanisms for investment screening. Based on a survey of a dozen studies, Gallagher and Zarsky (2004) find that both crowding out and crowding in are possible, but that most studies indicate the need for host countries to attain a certain threshold level of development, or to maintain certain policies or institutions in order for crowding in to occur.

But the correlation between FDI and growth, even if it is established, does not tell us much about the relationship between financial integration (openness) and growth, unless we can establish that policies of openness lead to increased investment. Specifically, since many countries are now facing the prospect of negotiating investment agreements on a bilateral or regional level, it would be useful to know whether the types of investment agreements found in trade agreements and bilateral investment treaties actually promote grater flows of FDI. If so, there may be a

30 See Alba *et al.* (1998).

weak case for the link between such forms of liberalization and growth. This question was examined above, and the answer seems to be that investment agreements do not have a significant effect in and of themselves. A frequent hypothesis is that other factors, such as macroeconomic and political stability, infrastructure, access to markets and functioning domestic institutions such as the judiciary and the bureaucracy are better at explaining patterns of foreign direct investment.[31]

Another salient question is whether the substantive provisions found in a given international investment agreement promote or hurt prospects for growth. Here some of the most interesting literature focuses on the wisdom or folly of "performance requirements." These are requirements placed on foreign investments, usually in an attempt to foster forward or backward linkages to the domestic economy, such as:

- requirements to purchase domestic inputs;
- requirements to export a given percentage of production;
- requirements to transfer proprietary technology; and
- requirements for some percentage of domestic ownership.

Under most international investment agreements, and all modern versions, such requirements on foreign investors are prohibited as a condition of establishment. The rationale is that such requirements are not economically sound, and end up both hurting the host state economy and impairing the efficiency of the investment. But the empirical support for a blanket prohibition on performance requirements is surprisingly thin. Moran (2001), for example, finds that certain types of performance requirements do not work (primarily those associated with joint venture, domestic content and technology sharing requirements) but, while contemplating the desirability of an export-oriented focus to FDI, does not consider the efficacy of export-related performance requirements. Zampetti and Fredriksson (2003) find the evidence on performance requirements mixed, though their analysis is much less thorough. UNCTAD (2003) looks at a number of case studies and finds that "a number of the performance requirements reviewed have helped a number of countries meet different development objectives." The study is rather negative on the effectiveness of joint venture and technology sharing requirements, as is Moran. It finds, though, that export requirements in fact can be highly effective in forcing FDI to generate more economic benefit to the host country.

Discussions on the possible shape of a WTO agreement on investment have debated the scope of the agreement, with a focus *inter alia* on the wisdom of pre-establishment national treatment provisions. Such provisions would demand that foreign prospective investors be treated no differently than domestic ones. As with performance requirements, the kind of discrimination this provision seeks to ban is usually aimed at fostering domestic sectoral development—bans on foreign investment in certain sectors, for example, aimed at establishing an infant industry. And as with

31 For a list of key factors in attracting investment, see Balasubramanyam (2001).

performance requirements, the evidence is mixed as to the wisdom of such a ban. Agosin and Mayer (2000) speculate that the screening policies still prevalent in Asia may explain the significantly greater amount of crowding in they find there, as compared to the relatively hands-off policy countries of Latin America, where crowding out was the norm.

7.3.2 Trade in goods

How does the evidence measure up in the context of liberalization of trade in goods? There seems to be a preponderance of agreement: greater openness to trade in goods is positively correlated with growth. This is shown in a recent exhaustive survey of the prominent literature (Berg and Kruger, 2002). But even here the picture is not straightforward. The authors note that there are problems of measuring openness, particularly in finding proxies that themselves have no causal relationship to growth. This is one of the key criticisms of the predominant literature (in particular such landmark studies as Sachs and Warner (1995)) presented by Rodriguez and Rodrik (1999) and by Eichengreen (2001), who argue that the key studies are so methodologically flawed as to invalidate their findings.

Another key argument of both critics is that studies (such as the influential Dollar and Kraay (2000), though this study was not yet published at that time) may find a correlation between greater global integration (defined as greater flows of trade per unit of GDP) and faster growth, but they tell us nothing about greater *trade openness* since they do not bother to consider whether it leads to greater global integration. That is, simply linking greater trade flows to faster growth tells us nothing about the merits of trade openness as a policy option, since we don't know whether openness in fact leads to greater trade flows. These types of studies in fact use trade flows as a proxy for openness, or at least as one of a set of proxy variables. UNDP (2003) use the Dollar and Kraay data but substitute a measure of policy openness in place of the trade flows proxy, and find no relationship between openness and growth in the countries surveyed.

A related problem is that even where a correlation can be found between openness and growth, it is difficult to assign causality. It may be in fact that growth is itself leading to greater openness (or to greater trade flows, where this is the variable in question). This is another criticism offered by Rodriguez and Rodrik (1999). Berg and Kruger (2002) outline the following ways in which this alternative dynamic might be working, and focus their analysis on those studies that attempt to control for them:

- wealthier countries have better ability to construct infrastructure;
- poor countries may need to tax trade relatively higher;
- higher incomes may shift preferences in favour of trade goods; and
- fast growth or higher incomes may lessen pressures for protection.

Berg and Kruger (2002) are able to make only a few unconditional findings. One is the correlation of trade openness with growth when the former is accompanied by a number of related policies and institutions, such as those aimed at macroeconomic stability, respect for property rights, the rule of law, etc. On the question of which is more powerful—the "institutional" factors, or trade openness—they are unable to make an assessment. The two variables are too strongly correlated, and therefore not amenable to comparison. Similarly, on whether trade openness itself can bring growth in absence of the institutional factors, they are unable to draw any conclusion. Baldwin (2002) surveys the literature with more or less the same results.

Indeed, a number of the key studies on this subject qualify their findings to note the importance of institutional factors, though these qualifications are seldom cited by those who reference the main findings. Dollar and Kraay (2002), for example, discussing their study note that:

> "It would be naïve to assert that all of this improvement in growth should be attributed to the greater openness of these globalizing economies: all of them have been engaged in wide-ranging economic reforms. … China, Hungary, India, and Vietnam … strengthened property rights and carried out other reforms. … Virtually all of the Latin American countries included in the grouping stabilized high inflation and adjusted fiscally."

The findings of Dollar and Kraay are not, as widely quoted, that trade openness leads to faster growth. They are, rather, "that increased participation in world trade, *together with good economic and social policies*, has worked well for a diverse group of poor countries." (Dollar and Kraay, 2002) (emphasis in original). This type of qualification is a standard feature of the trade and growth literature.

Panagariya (2003), for example, in his fervent defence of trade openness, notes:

> "… while trade openness is empirically more or less necessary for rapid growth, it is not sufficient by itself. There are complementary conditions such as macroeconomic stability, credibility of policy and enforcement of contracts without which the benefits of openness may fail to materialize. Indeed, there are plenty of examples from Africa, Latin America, Eastern Europe and the former Soviet Union during the past 20 years demonstrating that opening to trade need not result in faster growth."

This focus on necessary complementary institutions is echoed by Hoekman (2002), summarizing the sizable contribution to research made over 25 years by World Bank researcher Michael Finger: "A supporting legal and regulatory environment is vital for trade liberalization to serve as an engine of growth." It is also the central argument of Rodrik (2001), who "questions the centrality of trade and trade policy and emphasizes instead the critical role of domestic institutional innovations. [He] argues that economic growth is rarely sparked by imported blueprints and opening up the economy is hardly ever critical at the outset." For Rodrik, based on extensive historical analysis, certain types of institutions are essential in supporting growth and successful integration in global markets. These include:

- property rights;

- market regulatory institutions;
- macroeconomic stabilization;
- social insurance/safety net; and
- conflict management/rule of law.

He argues that no country has developed simply by opening itself up to foreign trade and investment. The trick in the successful cases has been to combine the opportunities offered by world markets with a domestic investment and institution-building strategy to stimulate the "animal spirits" of domestic entrepreneurs—an approach that sounds much like Sen's. He argues that almost all of the outstanding cases—East Asia, China, India since the early 1980s—involve partial and gradual opening up to imports and foreign investment.

7.3.3 Trade in services

A number of analysts have predicted sizable benefits to liberalization in services trade, in particular focussing on the benefits to developing countries.[32] It is worth taking a closer look at the possibilities in this area.

Trade in services can take at least four varieties (or *modes*, as they are called in the context of WTO negotiations):

- Mode 1, Cross-border supply: services flowing from the territory of one country to another, such as electronic banking and long-distance architectural services.
- Mode 2, Consumption abroad: persons moving from their country to consume services abroad (such as tourism services).
- Mode 3, Commercial presence: a service provider establishes a corporate presence in a host state to provide services (such as insurance, banking, telecommunications).
- Mode 4, Presence of natural persons: persons moving temporarily from their country to provide services abroad.

In terms of impacts on personal income, Modes 3 and 4 are perhaps the most significant. Mode 4 has major potential for increasing incomes of developing country service providers in key sectors such as construction and information technology. Estimates of the enormous economic potential of services liberalization (and broader trade liberalization) often rely significantly on this mode. Winters (2003) estimates that an increase in developed country quotas of inward movement of persons equivalent to three per cent or their workforces would generate an increase in global welfare of over $150 billion per year. Much of this would come in the form of increased income for developing country nationals.

32 To put the estimated gains in perspective, UNCTAD (2003) compares estimated gains from full liberalization of goods trade (US$66 billion per annum) to the estimated gains from free movement of natural persons (US$150 billion).

A more indirect impact on income and growth may be played by liberalization of services in Mode 3. The chain of causality would run as follows: liberalization of services leads to foreign direct investment in services; some of that investment is centred in sectors such as banking, insurance, energy, transportation and communications; investment in those sectors leads to increased investment in other sectors dependent on those services as a foundation for viability; the investment in those other sectors creates growth. This is a rather complex chain of interaction, but given the importance of services infrastructure development in attracting investment, it might be significant.

7.3.4 Trade, Trade Liberalization, Income and Equity

A cross-cutting question that applies to all the research surveyed above is the relationship between growth and equity. Particularly given Sen's bottom up approach focussing on the individual, it is necessary to ask not only whether trade openness promotes growth, but also, if it does, whether the fruits of that growth are equitably distributed.

On this question there is little agreement. Weller *et al.* (2001) argue that liberalization in the 1980s and 1990s (their strongest argument comes in the context of liberalization of portfolio investments) is associated with rising inequity within and between countries, though they are forced to discount the data from China in concluding the latter. Dollar and Kraay (2000) find, on the other hand, that growth of trade volumes is positively associated with poverty reduction (poverty being defined as the absolute number of poor, as opposed to the relative numbers). As noted above, however, these results have been criticized as misleading since, *inter alia*, they tell us nothing about the effects of trade liberalization as a policy option (that is, we do not know whether trade liberalization leads to growth of trade volumes).[33]

Ravaillon (2004) asserts that the literature is relatively clear on the question of trade liberalization and income distribution: there is no significant impact. However, he also argues that trade liberalization eventually leads to growth, and that growth leads to fewer absolute (but not necessarily relative) numbers of poor.

Goldberg and Pavcnik (2004) survey a number of studies looking at the price/wage effects, which are short-term static effects, rather than the dynamic effects of trade on growth and thence on inequality. This approach, of course, will be more sensitive to the negative "shock" effects of liberalization and will miss the long-run asserted benefits. Their findings are that liberalization will tend to hurt unskilled workers in the short run, since they are predominantly found in the highly protected sectors.

In a review of the literature, Bannister and Thugge (2001) find that there is no simple answer to the question of trade liberalization and poverty/inequity. Both theoretical work and case studies can arrive at either positive or negative outcomes,

33 See UNDP (2003).

depending on the starting conditions. They find overall a positive relationship between trade reform (broadly cast to include a number of policies that we have noted above as complements to trade openness) and increased income to the poor. But they agree with the findings of Goldberg and Pavcnik (2004) on the possibility (and empirical reality) of significant negative effects, particularly where the poor were formerly beneficiaries of protection, or of trade-distorting regimes such as subsidies. And they include the familiar qualification:

> "Trade reform cannot succeed in promoting growth in isolation from other reforms. … For the poor, complementary reforms may be especially important to ensure that trade reform does not result in the disappearance of entire markets or products on which they depend."

They draw heavily on Winters (2000) in citing the key types of complementary reforms they see as necessary:

- infrastructure development;
- facilitation of markets, and of the capacity to exploit new market opportunities; and
- labour mobility and training.

7.4 Conclusions

The overall conclusions of the literature surveyed is that trade and trade liberalization may indeed lead to growth, and that growth will tend to increase incomes across the board. It will not, however, significantly change the incidence of income inequality within a country, but by increasing all incomes it will reduce the absolute numbers of poor. That said, in the short- to medium-term, the poor may disproportionately suffer the pains of transition associated with liberalization, particularly in the absence of adjustment programs or social safety nets.

Another important conclusion is that while there may be a relationship between openness to trade in goods and economic growth (and thereby to increased personal incomes) the link is uncertain, or at least much weaker, in the absence of appropriate supporting policies and institutions. In the case of openness to investment, on the other hand, it seems clear that there is no demonstrated link between openness to investment and growth. Of the various types of investment FDI stands out as most likely to be significant. However, even increased FDI will not lead to increased growth absent the necessary domestic institutions. Liberalized trade in services may offer substantial benefits in terms of growth, depending on the existing services and assuming that foreign providers will offer better than what is currently available.

These findings do not change the nature of the linkages surveyed in the previous section. But they do add another dimension to those linkages that are affected by levels of personal income. These might include, depending on the levels of provision by government in any particular country, various aspects of health (including the ability to have adequate food and water), education and market opportunities (including adequate wage levels and access to credit).

8. Policies for Sustainable Development

If trade is to serve sustainable development, and we define sustainable development as we have done in this paper, what recommendations can we make for improving trade policy? The previous section described a wide variety of impact pathways by which trade and trade liberalization could affect sustainable development. How can trade policy best capture the potential gains, and avoid the potential pitfalls? And what types of non-trade policies might support these goals?

In considering the answers to these questions we should bear in mind that the various components of sustainable development need to be pursued as much as possible in a coherent fashion. Cherry picking is ill-advised, since the various elements are linked instrumentally. For example, a single-minded pursuit of health objectives may fail because of lack of attention to education, transportation infrastructure, and other instrumentally important elements of sustainable development.

Two important guiding themes emerged from the previous section. The first was the importance of institutions and complementary policy at the domestic level. Trade reform without these is seed scattered on barren ground. The second was the importance of policy space, and the need to ensure that trade reform does not inappropriately impinge on governments' ability to regulate in the public interest. That is, trade reform can be worse than useless if done improperly—it can actually be harmful to the types of freedoms we have defined as development, and to the institutions that provide them.

The recommendations that flow from this framework for analysis are of two types: those that can be implemented domestically, and those that need to take place at the international level. There are also implications for non-governmental stakeholders working in the area of trade and sustainable development.

8.1 Domestic-level trade policy

The analysis in the previous section painted a clear role for domestic action in ensuring that trade and trade reform make their full contribution to sustainable development (as we have defined it). It emphasized again and again the importance of supporting domestic institutions and complementary domestic policies to ensuring this result. The types of institutions discussed above include:

- strong regimes for environmental management;
- institutions for accountability, transparency and public input in decision-making;

- independent regulatory bodies to oversee infrastructure services;
- a competent, transparent, non-corrupt bureaucracy; and
- an independent judiciary with functional appeals mechanisms.

As well as these types of institutions, there are a number of complementary policies that countries—developing countries in particular—should by rights undertake should they wish to fully exploit the potential gains offered by trade reform:

- investment in health and education, with emphasis on accessibility;
- investment in infrastructure, particularly in the areas of water, transportation, communications and energy;
- commitment to macroeconomic stability, including stable exchange rates, low inflation, manageable debt; and
- pro-poor elements to various policies (banking sector, energy sector, transportation, education, etc.) to ensure the poor will benefit.

While clear, this domestic-level agenda is hardly simple. Indeed, no country at any level of development can rest satisfied that it has addressed all these needs to its satisfaction. For many developing countries, starting from poor baselines with few resources, the list is daunting and requires external assistance in the form of funds and expertise. We discuss some of the possible modalities for this type of assistance below.

Clearly, there is also a need for the development of expertise at the national level capable of identifying areas of institutional and policy need, specifically those that are made necessary by trade reform commitments made at the international level. For example, given the trade liberalization scenarios likely to derive from the WTO's current round of negotiations, what type of intellectual property rights systems, competition law regimes and regulatory structures will best foster sustainable development in each particular national context?

In the end, the tasks at the domestic level are primarily about ensuring that each country's citizens have the capabilities to fully exploit the opportunities offered by trade liberalization.

8.2 International-level trade policy

Apart from the domestic agenda for action, there is an agenda at the international level to help ensure that trade liberalization contributes to sustainable development. This section will focus on those actions that should be taken in the context of the WTO negotiations, but it has equal force and significance for other international trade-related fora, be they regional negotiations such as the Free Trade Area of the Americas or bilateral agreements.

A key problem highlighted by the analysis in Section 7 is this: we have argued that trade and trade policy need to be aimed at fostering sustainable development. The evidence shows that trade liberalization may only do so if the necessary complementary factors are in place domestically, and may even impede sustainable development in their absence. But in the context of the WTO negotiations, the only piece of the puzzle on offer is trade liberalization; there is no vehicle for assessing or improving the state of member country institutions. How, then, is the WTO to achieve its mandate of fostering sustainable development?

The answer is that the WTO must change the way it engages countries in the system—particularly developing countries that will be more likely to lack the institutional prerequisites and the means for achieving them unilaterally. The principle that should guide the necessary reform is of *differentiated need*: if trade liberalization has different impacts depending on, *inter alia*, the state of the institutions and complementary factors listed above, then the benefits of liberalization will be quite different from country to country. Amplifying this effect is the fact that economic and cultural factors will dictate different necessary institutional arrangements from country to country, and even within countries over time. To best serve sustainable development, it is necessary to differentiate among the needs of different countries and tailor their obligations accordingly.

Note that the principle of differentiated need is strongest in the context of regulatory "behind the border" reforms in such areas as investment, intellectual property rights, customs valuation, standard setting and provision of services. Whereas the argument can be made based on the theory that liberalized trade in goods and services will necessarily bring benefits (or, at least, overall benefits) to all countries, no such theoretical argument can be made in the context of regulatory reform. A harmonized regime may, in fact, be completely inappropriate for some countries, whether because its substantive provisions clash with their development needs by restricting policy space, or because the resources involved in implementing it would be more appropriately devoted to other priorities. A number of analysts make the argument that the costs of implementing the behind-the-border agreements can be inappropriately high for developing countries with pressing development challenges and scarce financial, human, administrative and political resources.[34] For many reasons, then, the structure of such agreements should be particularly strongly ruled by the principle of differentiated need.

The existing WTO practice of special and differential treatment does not effectively meet this need, as argued by Hoekman *et al.* (2003), Melendez-Ortiz and Dehlavi (2000), Tortora (2003) and others. It is essentially limited to extending time frames for implementation of agreements, technical assistance and affirming non-binding (and typically unfulfilled) best effort commitments for various types of favourable developing country treatment. Ideally, special and differential treatment would dictate that a given country should not undertake obligations if its domestic context was such that it would not derive benefits from doing so. If, for example, a country has not yet established an independent regulatory authority for telecommunications, it should not be expected to privatize the sector.

34 See, for example, Finger and Schuler (1999), Rodrik (2001), Hoekman (2002).

Tortora (2003: 20) argues along the same lines:

> "Development tools and policy spaces can be better envisaged through an issues-based approach that looks at the situation within the country in each trade area rather than across-the-board criteria that impose artificial comparisons between the economies of the world. This kind of tailored S&D approaches may be particularly useful in the areas of trade in services as well as other "within-the-borders" trade disciplines—and the Singapore issues. Development benchmarks would then be required according to each trade discipline, in order to assess if the domestic situation corresponding to the rules and commitments contained by the discipline needs to be addressed through some kind of S&D instruments. The supply constraints, the level of competitiveness, the social costs and the institutional capacity are some of the elements that should be incorporated in the benchmarks."

Operationalizing this approach would be difficult. Moreover, it would involve a fundamental departure from business as usual in the WTO. Yet there can be no disputing that this is what is needed and, therefore, it is worth thinking about how it might be achieved.

The first necessary element would be the capacity to assess when special and differential treatment was necessary. The current system relies on self declaration; special treatment is triggered when countries declare themselves to be "developing."[35] If special and differential treatment is to have meaningful implications, and if it is to be saleable as a reformed mechanism, this is the first target for change. No developed country will sign on to a meaningful special and differential treatment that fails to differentiate between Brazil and Bangladesh. A reformed special and differential treatment might be initiated by a request from an applicant country, but it would have to be conditioned on set criteria. Hoekman *et al.* (2003) suggest that an expert group be convened by the WTO to recommend suitable criteria. Tortora (2003) recommends that graduation not be a simple criteria-based cut-off, but that each case be judged according to its specific circumstances.

In an ideal world the criteria would relate to the existing domestic capacity to benefit from the policy reform in question. This would involve a fairly intensive assessment by a multidisciplinary team of a country's institutional capacity in particular sectors, and the state of various complementary policies that would allow trade liberalization to result in sustainable development.

In fact, assessments of this type (but with a slightly different focus) are already being undertaken by a collaboration of the WTO, the International Trade Centre, UNCTAD, the World Bank, the International Monetary Fund and UNDP: the Integrated Framework for Trade-Related Technical Assistance. This program, seeks to identify the constraints to "mainstreaming" trade priorities into the country's development strategy, and design a tailor-made program of capacity building

35 Least-developed countries, by contrast, are legally defined in the WTO.

with a focus on both human and institutional capacity. To date, the project has been short on the capacity building side of this equation, but the approach is worth highlighting as an example of the sort of integrated effort needed.

The capacity building in question could be carried out in a collaborative fashion similar to the Integrated Framework or the Joint Integrated Technical Assistance Programme to Selected Least Developed and Other African Countries, a joint effort of the WTO, UNCTAD and the International Trade Centre. Indeed, there would be some wisdom to coordinating the efforts of any special and differential treatment capacity building with existing programs. The WTO by itself is inappropriate for this sort of capacity building, at least if its efforts at technical assistance are a guide; these are for too narrowly focussed on building capacity to comply with existing WTO commitments. Tortora (2003) recommends a strategy that explicitly designates the IMF and the World Bank to support the effectiveness of the WTO's special and differential treatment provisions through financial assistance and capacity building.

The challenges involved are considerable. Successfully fostering a strong education system, for example, in just one country is a long-term challenge requiring a huge and ongoing budget outlay. And the operational challenges of determining how such institution building should be linked to progressive liberalization are also enormous. But if our goal is sustainable development, then these challenges must be met. Ignoring them means that the WTO risks failing in its mission to improve the well-being of people in developing member countries through trade liberalization.

8.3 Implications for non-governmental stakeholders

A number of non-governmental organizations work tirelessly in the areas of trade and environment, trade and sustainable development. Some are irrevocably against trade and investment of any character. Others strive for better quality trade and investment, in order to foster development, environmental goals, or even sustainable development.

For this latter category—those who strive for both development and environmental integrity, and who believe that trade and investment is not necessarily inimical to those goals—the present analysis holds some key lessons.

Those lessons ride, as does the whole of this paper, on accepting first that poverty is not merely the absence of money. This paper does not dwell much on justifying that definition, but takes it as given, for the sake of argument.

If we take that as given, then there are problems with the current approach used by those researchers and institutions who sincerely aim to have trade contribute to sustainable development. This paper argues that practically all such analysts have an incomplete working definition of the relationship between trade and sustainable development.

That definition usually runs as follows: trade liberalization leads to economic growth. Economic growth, if of an environmentally-sensitive character, or if bound by a sufficiently robust regime of environmental management, leads to sustainable development. This is the standard understanding used by the WTO, and also by such NGOs as the IISD, IIED, Oxfam and others. It is, for example, the basis of the calls by all these organizations for the lowering of barriers to exports from developing countries in the pursuit of sustainable development.

It is, however, problematic to assume that economic growth leads to development (and therefore, if civilized by the strictures of environmental management, to sustainable development). This equation is never explicitly stated, for good reason. It would be difficult to find people who would confess to supporting of the proposition that GDP growth is equivalent to development, even though the actual practice of the Bretton Woods institutions and the regional development banks often seems to reveal a preference for such a definition.

Development is generally understood to also encompass such things as an acceptable *distribution* of income, literacy, nutrition, education, longevity, democracy and a number of other non-income elements that we have highlighted in the preceding analysis. Granted, increased GDP can be instrumental in achieving some of these other things (other than equitable income distribution, of course), but as Section 7 shows, the linkage is by no means automatic. And increased GDP is certainly not *equivalent* to these things; they are constitutive goals in their own right. This truth is the foundation of such alternative measures of human welfare as the UNDP's Human Development Index—a composite of many diverse indicators of which only one is GDP per capita. And it is the central thesis of Sen's understanding of development.

And yet analysis after analysis relies on this implicit assumption: GDP growth equals development. It is implicit in the arguments of the WTO and the wider trade community that trade can be instrumental in the achievement of sustainable development. Even NGOs such as IISD, committed to sustainable development, come close to making this implicit assumption when arguing for trade's potential contribution to sustainable development, asking only that it respect environmental realities.

A hypothetical example helps to illustrate the shortcomings of the current thinking. A foreign investor builds a factory in a special economic zone in the South. It employs a large number of people in a sector new to the host country, meaning it creates economic growth. It also is exemplary in its respect for international norms of environmental management, so it is sustainable. But it practically enslaves its workers, paying them very little and treating them very badly. It remits no revenues to the government in taxes, accruing all profits in a foreign tax haven, and purchases none of its non-labour inputs in the host state. Is this sustainable development? Most would agree intuitively that it is not, but our current paradigm does not give us any basis for weeding out this kind of practice as undesirable.

The challenge is to conceive far more broadly of sustainable development, as encompassing more than green growth of GDP. This paper began by arguing the proposition that sustainable development is the proper goal of the trading system, and of trade liberalization. As such, any proposed liberalization, or any new trade policy, should be analyzed on the basis of its effects on the wide variety of elements we enumerated above as constitutive and instrumental for sustainable development: education, health, governance, legal protections, market opportunities, and public, social and ecological capital. It will involve a heightened focus on domestic institutions, on the equity effects of trade and trade liberalization, on the social impacts of economic transition.

This is not an easy challenge. It is much harder work to track and analyze such a complex web of linkages than it is to work with just a few (and in truth most countries do not even manage to work out the *economic* implications of trade negotiating scenarios before signing on). In many cases the analysis would be all but impossible to any significant level of detail without an unreasonably large commitment of time and resources. The first step toward such an improvement in policy analysis, however, is to agree that the goal is legitimate. It is only thereafter that it is appropriate to be concerned with the pragmatic matter of how we might best approach it.

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A Capabilities Approach to Trade and Sustainable Development: Using Sen's Conception of Development to Re-examine the Debates

This paper takes the thinking of Nobel laureate Amartya Sen and uses it to fashion a comprehensive new definition of sustainable development. It then asks how trade and trade liberalization might contribute to sustainable development so defined, surveying a complex web of potential impacts. It draws important lessons for civil society, developing countries and the WTO negotiations from the analysis.