

**SIAs and negotiating ‘contextual realities’
(SIAMETHOD):**
New SIA approaches for Traded Commodities

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ABSTRACT

Sustainability Impact Assessments (SIAs) have highlighted a range of impacts from the production and international trade of commodities, which are negative in respect of sustainable development, including the depletion of non-renewable resources, the unsustainable exploitation of renewable resources, over-production, price volatility, declining terms of trade in relation to manufactures, and the potential to disrupt communities, undermine good governance and stimulate corruption. These negative impacts of commodity trade, which relate closely to a number of 'contextual realities' that currently militate against further trade agreements, may be exacerbated by simple trade liberalisation, and they may therefore intensify opposition to such liberalisation unless they are addressed. The paper describes the various government, producer and consumer initiatives that have sought to mitigate the impacts, with limited success. The paper proposes that elements of these initiatives should be combined into a new kind of sustainable Commodity Agreement (SCA), which could ensure that further liberalisation of commodity trade was politically easier to achieve because it made a contribution to sustainable development rather than compromising it. SIAs could propose SCAs as measures to mitigate negative impacts of trade liberalisation.

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1 Introduction to traded commodities

Commodities can be defined as a: '*a raw material or primary agricultural product that can be bought and sold*'. The term therefore refers to goods which have not undergone extensive processing. Increasingly, commodities are upstream of an increasingly complex web of product chains which go to produce modern consumer products. This report sets out to investigate how the sustainability impacts associated with the production of traded commodities can be assessed within trade negotiations and enhanced or mitigated in order for trade to contribute towards sustainable development.

Commodities can be classified and subdivided depending on the issue under consideration. The most common classification divides agriculturally produced commodities from commodities such as metals and minerals which are extracted from stocks in the earth, and are therefore non-renewable. An alternative classification for commodities relates to how the trade flow tends to be treated within national governments' trade policies. A key determinant of this will be whether developing countries are in competition with a developed country's production, and therefore whether the developed countries will be prone to protect their domestic production in the face of lower cost imports.

1.1 Agricultural commodity flows

Table 1.1 summarises the flows of traded commodities in the year 2000 alongside total global production and the largest producers, exporters and importers of each commodity. Price profiles and trends are also provided for recent decades. This information needs to be considered in conjunction with Figure 1.1 which provides assessments of the relevance and level of contention generated by trade in each commodity, within trade fora.

Of the 23 commodities considered by the FAO (2003) report, more than 3,380 Mt of commodities were produced in 2000, 409 Mt or 12% of which were traded unprocessed. This proportion varied from 0.2% in the case of tropical fruits (i.e. the unprocessed fresh fruit), and 89% in the case of cocoa. These extremes can help underline a general pattern in commodity trade. Where commodity production is not technologically complex but labour intensive (as in the case of cocoa production), developing countries such as Cote d'Ivoire will tend to have a comparative advantage in their production. This production will tend to be exported unprocessed to more developed countries where their technological comparative advantage makes processing easier. In the case of fruits intended for juicing, higher costs associated with transporting a fresh fruit means that the fruit is almost all processed to a minimal level into juice and traded as a secondary commodity and exported to the countries which package the juice such as the EU countries.

There is potential for exporting the processing technology to the producing country where wages are lower, and the processing country exporting the processed commodity into the consuming markets. However, tariffs on processed products (so called tariff escalation) by OECD countries, and the lack of capacity in some producing countries is often a barrier to this.

Table 1.1 – Global production and trade in agricultural commodities in 2000

		Production		Trade			Price profile														
		2000	Largest	2000	Largest (in 2000)		% Traded	Range	Unit	Max		Min		Trend	Max/Min						
		Mt		Mt	Exporter	Importer	%	Years	Index ^v /unit	Year	Value	Year	Value	1970s to 2001	Ratio						
<i>Basic food stuffs</i>																					
	Wheat	590	-	102	USA	Japan	17%	1980-2001	US\$/t*	1980	245	1999	110	↘	2.2						
	Coarse grains	900		105					12%	-	-	-	-	-	-	↘	-				
	Rice	400	China	22	Thailand	Indonesia	6%	1985-2001	1982/1984	1996	135	1986	67	-	2.0						
	Meat	225	-	17	-	-	8%	1990-2001	1990/1992	1990	108	2000	79	↘	1.4						
	Dairy (milk)	590	Developed	45	Developed	Developing	8%			1996	160	1990	78	→	2.1						
	Oils	0.11	-	0.05	-	-	45%	1991-2001	1990/1992	1997	163	2000	75	→	2.2						
	Cassava	180	-	6.9	Thailand	-	4%	1996-2002	US\$/t	1996	170	2002	80	↓	2.1						
	Pulses	55	Developing	8.4	Canada	EU-15	15%	1990-2000	US\$/t	1996	422	2000	309	→	1.4						
<i>Raw materials</i>																					
	Cotton	>16.8	USA	6	USA	-	-	1970-2000	US\$/t*	1972	57	2000	12	↓	4.8						
	Natural rubber	7	Thailand	4.8	Thailand	USA	69%	1970-2001	UK£/t	1983	280	1998	110	↗↘	2.5						
	Jute	3.4	India	1.1	Bangladesh	Thailand	35%	1970-2000	US\$ = 1990	1970	1100	1998	210	↓	5.2						
Hides & skins	Bovine	2.85	USA	-	-	-	-	1990-2001	1991 = 100	2001	150	1992	92	→	1.6						
	Sheep	0.157	China	-	-	-	-			1996	170	1999	90	→	1.9						
	Goat	0.145	India	-	-	-	-			1995	105	2000	70	→	1.5						
<i>Tropical products</i>																					
Tropical fruits	Tropical fruits (all)	60	Asia	0.14		EU	0.2%	1993-2000	US\$/t												
	Mangos	23																			
	Pineapples	14																			
	Avocados	8																			
	Papaya	2																			
	Sugar	130	EU-15	37	EU/Brazil	EU	28%	1970-2001	1990US\$/t	1975	160	1999	12	→	13.3						
	Cocoa	2.8	Cote d' Ivoire	2.5	Cote d' Ivoire	-	89%			1976	750	1999	80	↗↘	9.4						
	Coffee	6.75	Brazil	5.2	Brazil	EU	77%			1977	9810	2001	1090	↓	9.0						
	Tea	3	India	1.35	Sri Lanka	UK	45%			1983	4050	1994	1300	↘	3.1						
<i>Horticultural products</i>																					
	Citrus	95	Brazil	32.5	Brazil	EU	34%	1975-2000	US\$/t#	1991	130	1980	50	→	2.6						
	Bananas	65	-	11.6	Ecuador	EU	18%	1971-2000	US\$/t@	1982	550	1994	350	→	1.6						
Totals		3,330		409			12%														

Source: Adapted and summarised from FAO 2003

Notes:

* Deflated price trend

^ Years where the index of 100 was set

US\$/t for fresh citrus fruit in the US

@ Price of bananas in the US used (note, European prices were distorted in the 1990s due to the use of a tariff-quota system)

↑ Consistent upward trend in prices

↗ Upward trend in prices with some variation

→ Considerable variation in prices

↘ Downward trend in prices with some variation

↓ Consistent downward trend in prices

Table 1.1 shows the maximum price relative to the minimum price for many commodities over recent decades. The results show that for commodities where price trends are available from the 1970s, the minimum price in the trend was almost always found to be more recently (typically in the late 1990s) and the maximum in the 1970s. The maximum to minimum price ratio was 13.3 in the case of sugar showing that in real terms, incomes per tonne from sugar production were 13.3 times greater in 1975 than in 1999. Cocoa and coffee were also found to have experienced large changes in prices and have maximum to minimum price ratios of 9 and 9.4 respectively for the years 1970 to 2001. The arrows in Table 1.1 show the overall direction and consistency of any price trend. This shows that although many commodities show a relatively consistent long term decline in prices (e.g. coffee), many other commodity price trends have shown considerable variation (e.g. fruits, meat and dairy).

1.1.1 The regulation of traded agricultural commodities

Agricultural trade reform is a significant challenge to trade negotiators and is one of the main barriers to further trade liberalisation within the present Doha round of WTO negotiations. FAO (2003) provides written assessments of the status of implementation of various policy measures which were the subject of the Uruguay Round Agreement on Agriculture. The information was collected from questionnaires sent to FAO member countries, as well as from a variety of sources monitored by FAO Commodity Specialists. This information has been further assessed and summarised in Figure 1.1 to provide an assessment of the relevance and level of contention which the issue generates within trade fora. The criteria for assessment tested whether the issue was both distorting to trade and the subject of contentious action, distorting and the subject of contention but no action, or only of low level of relevance to negotiations and not subject to any contention. The broad issues covered by the report and provided in Figure 1.1 include:

- **Tariffs** including Tariff Rate Quotas (TRQs), import tariffs and tariffs which escalate depending on the level of processing.
- **Subsidies** and measures of production support including subsidy boxes (see Box 1.1 below) and export support (including export subsidies and credits as well as the use of State Trading Enterprises (STEs).
- **Special topic** issues such as food safety, direct food security (i.e. due to the export of food rather than vulnerability to price changes) and rural development.

Figure 1.1 - Relevance and level of contention generated by different commodities within trade fora

		Tariffs			Subsidies & support						Security & safety			
		TRQs	Import	Escalation	Boxes			Export			Food		Rural	
					Amber	Blue	Green	Subsidies	Credits	STE	Security	Safety	Development	
Basic food stuffs														
	Wheat					-								
	Rice													
	Meat					-	-				-			
	Dairy (milk)					-				-				
	Oils					-				-				
Raw materials														
	Cotton					-	-				-	-		
	Natural rubber	-				-	-		-		-	-		
	Jute			-	-	-	-							
	Hides & skins	-		-	-	-	-				-	-		
Tropical products														
	Tropical fruits	-			-	-	-		-					
	Sugar			-										
	Cocoa	-			-	-	-							
	Coffee	-			-	-	-							
	Tea	-			-	-	-							
Horticultural products														
	Citrus					-	-							
	Bananas			-		-	-							

Source: Assessed from FAO 2003, part II (Relevance of WTO negotiating issues for commodities)

Key:

-	Insignificant, non-existent or not covered by source
	Low relevance to negotiations - not the subject of contentious debate
	Issue which distorts trade and is the subject of contention
	Highly distorting and subject to contentious trade action

Box 1.1 – The classification of agricultural subsidies into boxes

Generally, the WTO classifies subsidies into boxes depending on the level of trade distortion that they cause. The boxes are named using a system of traffic lights: green (permitted), amber (need to be reduced), red (forbidden). This system has been adapted in the case of agricultural subsidies so that:

- **Amber box** subsidies relate to domestic support measures considered to distort production and trade and include measures to support prices, or subsidies directly related to production quantities. Such subsidies would not normally be permitted but in the case of agriculture are only subject to limits (so called “de minimis”) which must not exceed 5% of agricultural production for developed countries and 10% for developing countries. Amber box subsidies can be reclassified and therefore provide unlimited support if they meet the conditions to be classified into the blue or green box subsidy.
- **Blue box** subsidies aim to reduce the distortion which would be caused if they remained in the amber box and require farmers to limit production.
- **Green box** subsidies must not distort trade, or at most cause minimal distortion. They have to be government-funded (not by charging consumers higher prices) and must not involve price support. They tend to be programmes that are not targeted at particular products, and include direct income supports for farmers that are ‘decoupled’ from current production levels or prices. They also include environmental protection and regional development programmes.

Source: WTO 2002

At first sight, patterns are hard to determine from Figure 1.1. To do this it is necessary to understand the issues in relation to whether developed countries also produce a particular

commodity, and how their continued production relates to national interests such as countryside management and food security. Generally, developed countries continue to produce basic food stuffs (wheat, rice, meat, dairy and oils), cotton in the case of the US and sugar (beet) in the case of the EU.

To maintain ongoing production, trade is restricted in these commodities through the use of production and export support mechanisms as well as tariffs on imports. The most contentious form of production support is the so called amber box subsidies which are linked directly to the level of production, as can be seen by the contention highlighted by Figure 1.1. The developed countries have to some extent de-coupled these support measures since the Uruguay Round so that they can be re-classified into the blue and green boxes. There is still some contention around the trade distorting nature of some blue and green box classified production support measures, as shown in Figure 1.1 in the case of rice and sugar (see FAO 2003 for details). It is also the case that import tariffs are sometimes levied by developing countries, often in response to production and export subsidies provided by developed countries.

Where developed countries do not have domestic interests to protect (such as for example cocoa, coffee and tea), tariff escalation on processed commodities and products is more common to ensure that processing of commodities is retained within developed countries. There are also cases of export tariffs levied by some developing countries on their own production. These will tend to be less trade distorting and might even represent no more than a re-allocation of rents or form of taxation if maintained within margins between the cost of production and the world commodity price. If levied correctly, export tariffs may also counteract the effects of some developed countries' tariff escalation.

The least developed countries are often provided with trade preferences in order to avoid tariff barriers. In the case of the EU, this is administered through the 'Everything But Arms' (EBA) arrangements. Since 2000, least developed countries have free access to the European Union market under the EBA arrangement, with temporary exceptions for rice, sugar and bananas (UNCTAD 2004, p.80). However, it has been reported that the EU already had pre-existing preferences for most of the goods in question and that the EBA arrangements are having little impact. Yu and Jensen (2003, p.1) found that the negative impact on the EU and third countries seems to be quite small and that the total welfare impacts of the EBA are less than US\$300 million for all the LDCs.

1.2 Non-agricultural commodity flows

Table 1.2 - Production and reserves of mineral commodities in 2005

	Unit	2005 Production		Reserves (in 2005)				Price
			<i>Largest</i>	<i>Reserves</i>	<i>Largest</i>	<i>Years</i>	<i>Reserve base</i>	<i>US\$/t</i>
Asbestos	Mt	2.2	Russia	Large	-	-	Large	\$255
Bauxite and Alumina	Mt	165	Australia	25,000	Guinea	152	32,000	\$25
Bismuth	kt	5.2	China	330	China	63	680	\$239,800
Clays [^]	Mt	60.6	USA	Extremely large				-
Copper metal	Mt	14.9	Chile	470	Chile	32	940	\$3,684
Diamond (Industrial)	t	14.8	USA	116	Congo	8	250	\$62,750,000
Feldspar	Mt	11.5	Italy	-	-	-	-	\$58
Gold	kt	2.5	Soth Africa	42	South Africa	17	90	\$15,347,200
Graphite (Natural)	Mt	1.0	China	86	China	86	290	\$578
Gypsum (@ mine)	Mt	110	USA	>2,450	Brazil	>22	Large	\$7.3
Lead	Mt	3.2	China	67	Australia	21	140	\$946
Lime	Mt	128	China	Adequate				-
Lithium	kt	20.4	Chile	4,100	Chile	201	11,000	-
Mercury	kt	1.1	China	120	Spain	109	240	\$21,513
Mica	kt	290	Russia	Large				\$270 (Dry)
Nickel	Mt	1.5	Russia	62	Australia	41	140	\$14,538
Phosphate Rock	Mt	148	USA	18,000	USA	122	50,000	\$28
Potash	Mt	31	Canada	8,300	Canada	268	17,000	\$270
Salt	Mt	210	USA	Inexhaustible				\$130
Silicon	Mt	5.1	China	Ample				\$77
Silver	kt	20.4	Peru	270	Peru	13	570	\$229,881
Sulphur	Mt	64	USA	Large				\$35
Tin	Mt	0.3	China	6.1	China	22	11	\$344
Titanium (Ilmenite)	Mt	4.8	Australia	600	China	125	1,200	\$80
Titanium (Rutile)	Mt	0.4	Australia	50	Australia	139	100	\$470
Tungsten	kt	76.5	China	2,900	China	38	6,200	\$12,300
Zinc	Mt	10.1	China	220	Australia	22	460	\$1,319

Source: Adapted and summarised from USGS 2006

Notes:

Reserves	A concentration of naturally occurring material in or on the Earth's crust in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible.
Reserve base	The reserve base is the in-place demonstrated (measured plus indicated) resource from which reserves are estimated. It may encompass those parts of the resources that have a reasonable potential for becoming economically available within planning horizons beyond those that assume proven technology and current economics. The reserve base includes those resources that are currently economic (reserves), marginally economic (marginal reserves), and some of those that are currently sub-economic (sub-economic resources).
Prices	Are typically US prices for the metal commodity in its least processed form - International price (eg LME) used where available.
^	Clays include Bentonite, Fuller's & Kaolin

Table 1.2 shows how the annual production of selected commodities relates to reserves in terms of the number of years it would take for present reserves to be depleted at present rates of depletion. Note that reserve is an economic concept in this context and relates to

the amount of resource which is economically recoverable using present technology at present prices. It is therefore very unlikely that the resource would be truly depleted over this timescale as price increases brought on by anticipated scarcity would both increase economically exploitable reserves and cause reduced consumption. In addition, history has shown that technology and further exploration have often led to increasing reserves.

Nevertheless, this ratio of reserves to production is a useful current snapshot of potential scarcity, which in turn provides information both about the sustainability of present trade in mineral commodities and perhaps the reason why in some cases the commodity needs to be traded. As can be seen from Table 1.2, global reserves of some commodities are small. Holding all else constant, if present levels of production were to be maintained, reserves of silver, gold, tin, zinc and copper would be depleted in 13, 17, 22, 22 and 32 years respectively. Diamonds (8 years) represent a somewhat misleading picture as much of the present production in industrial diamonds is manufactured, and is therefore produced from a much greater carbon resource base.

The largest producers of mineral commodities tend to be a relatively small group of large countries (e.g. USA, Australia, China and Russia). Although some developing countries are represented, (e.g. China and Chile), none of the largest producers are the least developed countries. This is not the case for reserves with a much more diverse mix of countries and two least developed countries (Guinea and Congo). The fact that production and the utilisation of reserves do not match is driven a number of factors including historical patterns of production, the level of domestic or nearby demand as well as the investment climate in the host country (further explored in conjunction with Table 1.3 below).

Table 1.3 – Global production and trade in unprocessed ores in 2000

Ore commodity	Production	Exports	% Traded	Value	
	kt	kt	%	m\$	\$/t [^]
Bauxite and other aluminium ores and concentrates	136,189	31,295	23%	\$684	\$22
Copper ore and concentrates	13,256	4,599	35%	\$6,113	\$1,329
Iron ore concentrates	961,250	491,125	51%	\$9,324	\$19
Lead ores and concentrates	2,965	1,125	38%	\$520	\$462
Manganese ores and concentrates	20,267	8,483	42%	\$644	\$76
Nickel ores and concentrates	1,133	191	17%	\$477	\$2,502
Phosphate rock ground or not*	142,372	26,650	19%	\$985	\$37
Sulphur	57,932	16,185	28%	\$711	\$44
Tin ores and concentrates	247	34	14%	\$139	\$4,067
Zinc ores and concentrates	8,711	4,133	47%	\$2,431	\$588
Totals	1,344,322	583,820	43%	\$22,028	

Source: Extracted from UNCTAD 2003

Notes:

[^] Value by tonne of metal content in ore

* A correction has been made to remove the effect of a 10 fold increase in China's production of phosphate which was not found in previous years' totals and confirmed to be in error from USGS (2006) and 2005 levels of production.

Table 1.3 explores the proportion of extracted ores which are traded before further processing. Overall, 43% of the selected ores are exported without processing into their mineral useful state. This percentage varies from 14% for tin ores and concentrates and 51% for iron ores. Table 1.3 also shows the export value of the ores. This can be compared to the per tonne price achieved for the more processed, higher value, metal products as shown in Table 1.3. The relative value of the ore to metal price for copper, lead, nickel, tin and zinc is 36%, 49%, 17%, 54% and 45% respectively. This means that in the case of copper for example, 64% of the value of the metal product is added in the ore processing stage of the chain.

1.3 Barriers to a more sustainable commodity system

The characteristics of commodity production and the markets which they serve have led to the long-term trends of increasing capacity and production, fluctuating but in general declining prices relative to manufactured goods, over-production and resource depletion, environmental pollution and in many cases community decline. In addition to these characteristics, a combination of subsidies and global political trends have led to a declining share in commodity production from the LDC, and an increasing share for the most developed countries. These issues are now explored in turn.

The 'commodity trap'

In an ideal market, a decline in price would result in a proportionate response by producers to reduce output. This is not always the case with commodity production. A report by the Sustainability Institute (2003) describes a tendency for some commodity producers to both re-invest profits in increased capacity when prices are high, and increase production efficiency to maintain revenues when prices are low. This latter trend is due to the lack of alternative sources of income available to producers, as well as the very real financial plight they face when prices fall. Production can therefore expand irrespective of price. In response markets will naturally expand to absorb the increased production which in turn can often lead to price fluctuations. These drivers are often referred to as the 'commodity trap' and explain why resource-rich countries are often outperformed by countries with scarce resources (see Brander 2005, p4).

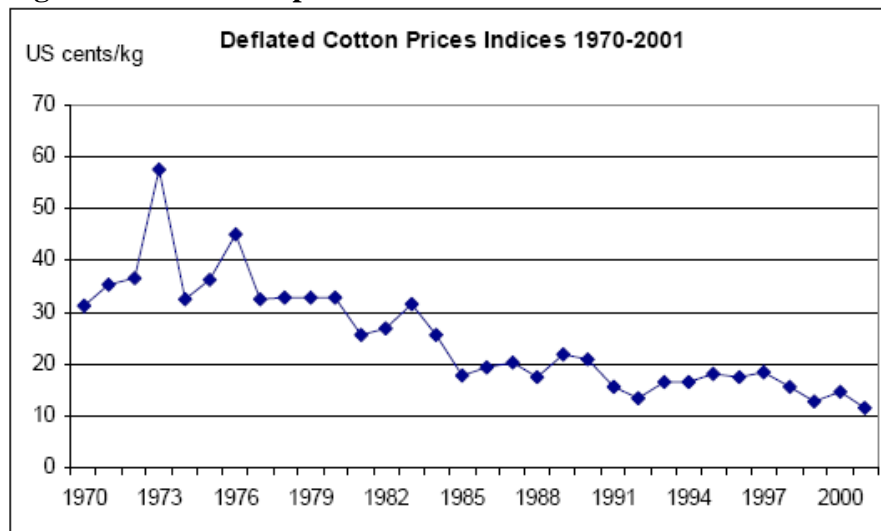
Depletion of stocks

Levels of production are limited by the extent of the resource. Ideally, for sustainability of renewable resources, the level of production would be less than or equal to their regeneration rate, but this does not occur in the production of the vast majority of renewable commodities. If the resource is open to all to access there will be no incentive for individuals to forgo production. Irrespective of access arrangements, signs of scarcity are often only felt long after the regeneration rate has been exceeded. Even when producers receive notable signals of scarcity, capacity will only decrease once the declining rates of return for a given harvest effort lead to unit short term production costs being greater than consumers' willingness to pay. In the event that consumers have been enjoying large consumer surpluses, or they value highly the rarity of the commodity, or technical change reduces production costs, the resource may well be exploited to the point of collapse. This is becoming the case for many of the world's fisheries.

Terms of trade and price fluctuations

Price fluctuation associated with traded commodities is an important barrier to sustainable development in many developing countries. The removal of international and domestic commodity price stabilization schemes means that commodity producers in developing countries are no longer protected against price volatility. Declines in commodity prices have been occurring over a long period of time. Figure 1.2 provides an example of a price trend for cotton in recent decades (1970 to 2001) and shows that the price paid for cotton has both fluctuated and declined over recent decades.

Figure 1.2 – Deflated prices for cotton



Source: FAO 2003, p. 30

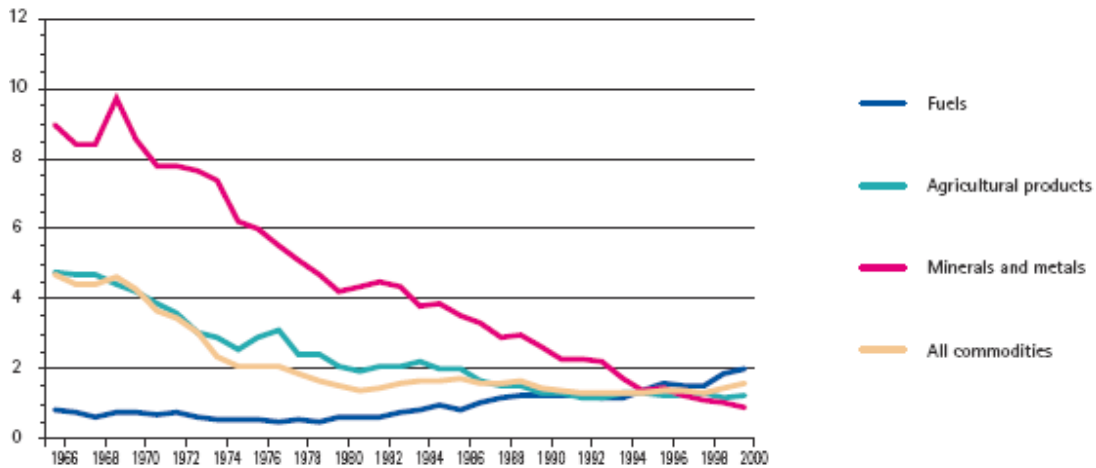
In 2002 the price index of agricultural commodities, deflated by the price index of manufactured exports of industrial economies in US dollars, was one half of the same index in 1980 (UNCTAD 2004, p82). This is consistent with what was proposed in the Prebisch-Singer thesis in 1950. The Prebisch-Singer thesis suggested that, in the long-term, prices for primary commodity exports will fall in relation to prices of manufactured imports (reported in UNCTAD 2004, p82). In economic terms the hypothesis explains this by a divergence between the income elasticity of demand for primary products and the income elasticity of demand for manufactured products. In material terms, the global economy is dematerialising meaning that less material is required to perform the same function, and so the value within the product chain is increasingly being captured in the manufacturing process. Overall, the terms of trade for commodity-producing countries are declining.

Political and governance barriers

In recent decades, developed countries' share of the world market for commodities has increased, mainly at the expense of the formerly socialist countries of Eastern Europe, but also at developing countries' expense. In fact there has been a long term decline in the LDCs' share of commodity trade as shown in Figure 1.3. UNCTAD (2004, p 80) reported that, although total volumes of traded commodities increased at an annual average rate of

7.2% from 1966 to 2000, least developed countries' share of this growth was only 2.2% and their overall share actually declined by 5% during this period.

Figure 1.3 - Share of least developed countries in commodity exports (%)



Source: UNCTAD 2004, p79

Whilst the decline in LDCs' share of agricultural commodities can be in part explained by developed countries' subsidy measures, metal products can enter developed-country markets at very low tariffs. However, Sub-Saharan Africa's share in traded metal commodities declined by 3.1% from 1996 to 2000. The decline was greater still at 5.1% if South Africa is excluded (UNCTAD 2004, p.79). This decline was reported to be due to a lack of investor confidence and therefore a preference for "safe havens" in developed countries. In contrast, Latin American countries continued being able to attract foreign investment in mining and Asian countries were able to experience a 2% increase in share during this period, in part due to rapidly growing domestic demand, which provided a secure base for expanding exports of processed metal products.

2 Sustainable Development impacts from commodity production

2.1 Trade in commodities and the environment

Kox (1993) categorises environmental impacts from commodity production in terms of pollution and resource depletion. In relation to resource depletion, he then divides natural stocks into three: renewable, semi-renewable and un-renewable (or non-renewable). This categorisation of stocks leads to the categorisation of commodities into mining and other commodities (agricultural, fisheries and forestry) where the former represents a depletion of a non-renewable stock and the rest can at least in principle represent renewable processes. Figure 2.1 summarises the types of environmental impacts often associated with the production of commodities.

Figure 2.1 – Environmental damage associated with commodity production

Commodity groups	Pollution problems						Depletion problems							
	Aerial	Water		Waste		Other	Renewables	Semi-renewables			Non-renewables			
	Inc. dust	Surface	Ground	Solid*	Toxic	inc. noise	Soil fertility	Water deposits	Ecosystems	Erosion	Biological pollution	Mineral deposits	Bio-diversity	Landscape
Agricultural products:														
Tree crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cattle products	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mining products:														
Open pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other mining	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forestry products	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fishery products	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Adapted from Kox 1993, p3

Notes:

-	Negligible damage
	Occasional damage
	Frequent damage

Note: * Including salinisation

Impacts from the mining of commodities

Export mining has negative impacts in both the extraction and the processing stages. Kox (1993, p2) describes the most common problems at the excavation and ore removal phases as being: the destruction of plant and animal habitats; land subsidence; erosion, silting of lakes and streams; dust pollution; trace metal pollution; giant waste heaps; acid drainage (sulphur in overburden); and metal contamination of lakes, streams and groundwater. In addition to this, he reports that open-cast mining (for example copper, tin, zinc and bauxite) often contributes heavily to soil erosion by demolition of vegetation and soil structure. In the ore concentration phase of production the most common problems are: waste generation (tailings); organic chemical contamination (residues of chemicals used in concentrators) as well as acid drainage.

Impacts from growing agricultural commodities

As far as agricultural commodities are concerned, the key environmental differentiator is whether the commodity is a tree or a field crop. Field grown crops (like cotton, soya or tapioca) cause much more erosion problems and require greater inputs of chemical fertilisers (Kox 1993, p.2). The production of so called cash crops for export (like soya, cotton, tobacco, bananas, cocoa, coffee, rubber and sugar cane) has been linked with abundant use of agrochemicals, especially when production units are large. The excessive use of agrochemicals has the potential to cause cumulative long-term effects in the form of pesticide residues in animal and food chains (Kox 1993, p2). Beyond this, the particular environmental impacts tend to be crop and location specific.

Kox reported massive deforestation in the Amazon, South East Asia and certain parts of Africa and identified export production of tropical hard wood as a major cause (Kox 1993, p4). Whilst this may have been the case in the early 1990s, this link is less evident in the present day. Deforestation brought on by forest clearance is still very much occurring and in some cases can be linked back to export commodity production such as cattle ranching. CIFOR (2004) reports that much of the recent loss of Brazil's Amazonian forests is due to the high international demand for Brazilian beef. In addition they report that, between 1990 and 2001 the percentage of Europe's processed meat imports that came from Brazil rose from 40 to 74 percent (CIFOR 2004).

Impacts from fishing

Fisheries are often open and common resources and are therefore prone to excessive fishing. Over-fishing of coastal and deep sea areas negatively affects the regeneration capacity of fish populations. In addition, Kox (1993, p.4) reports that some fishing practices contribute to devastation of coral reefs and the sea bottom. UNEP (1999, p.xi) reports a tremendous growth in Uganda fish exports which led to the industry becoming Uganda's main foreign exchange earner outside of traditional agricultural exports but a variety of concerns over the long-term sustainability of the industry. These concerns are reported to include:

1. over-fishing and resource depletion;
2. the loss of biodiversity associated with exotic species introductions and unsustainable fishing methods;
3. effluent pollution from fish processing and other industries;
4. the degradation of coastal ecosystems and environmental health conditions associated with rapid development of the industry; and
5. resource mismanagement due to the lack of harmonised national environmental standards among those countries with riparian rights over Lake Victoria (Uganda, Kenya, and Tanzania).

2.2 Trade in commodities and development

Much of the debate relating to trade, and particularly trade in commodities, centres on issues of development. Advocates of trade liberalisation believe that an open and fair international trading system can provide benefits for people in developing countries, whilst controlling environmental harm which might be generated by greater economic output (see for example Bhagwati 2004).

Trade theory suggests that trade liberalisation should provide net economic benefits for all participating countries. This theory is reinforced by the various SIAs undertaken during negotiations involving the EU (see Section 3). There is also some retrospective evidence of economic benefits for developing countries' participation in international trade. Brander (2005, p.3) reports a general perception that trade has contributed to the economic development of between 20 and 25 low and middle income countries largely in South and East Asia and Latin America. He also reported that the least developed countries, particularly in sub-Saharan Africa, that are at best marginal participants in the trading system have, as yet, been unable to take similar advantage of the market openings that are available. This leaves outstanding the question as to whether this model of export led development can (or should) be promoted in least developed countries. If such a path is followed, what can trade negotiators do to ensure that any benefits are distributed in a way which reduces poverty whilst avoiding significant environmental impacts during development transitions?

The interaction between economic development and the environment is a greatly researched topic, in part through the hypothesised existence of Environmental Kuznets Curve (EKC) relationships. The EKC theory proposes that in the early stages of economic growth, degradation and pollution increase. However, beyond some level of income per capita (which will vary for different indicators) the trend reverses, so that at high income levels economic growth leads to environmental improvement¹ (Stern 2004). This can, to some extent, be confirmed by the development patterns already experienced by developed countries. Grossman (1995) found that "economic growth brings an initial phase of deterioration followed by a subsequent phase of improvement". He found that the turning points for the different pollutants vary, but in most cases they come before a country reaches a per capita income of \$8,000 (Grossman 1995, abstract). This finding does not however show that economic growth causes this relationship and therefore does not guarantee that the same will be the case for presently developing countries.

Analysis undertaken by Cole (2004) explores the downturn shape of the EKC in developed countries and finds that it was the result of three drivers: increased demand for environmental regulations, trade openness and a shift towards greater imports of manufactured goods from other countries which may become pollution havens (Cole 2004, p.79). If the latter of these three drivers was to be the dominant cause for the decline, such a decline in pollution might not be achieved as easily by the least developed countries. The evidence for pollution havens is by no means certain. von Moltke (2003, p.4) reports that "there is no evidence for the systematic development of pollution havens". He does however accept that the "steady shift of commodity production, in particular of minerals, from Europe and the population centres of North America towards rural areas and developing countries may be promoted not only by the rising cost of land but also by increased environmental rules". Under such a scenario, developing countries may well desire a cleaner environment as they develop, but there will be few countries

¹ This implies that the environmental impact indicator is an inverted U-shaped function of income per capita. Typically, the logarithm of the indicator is modelled as a quadratic function of the logarithm of income.

willing to accept the dirtier production. An alternative solution may well lie in the transfer of cleaner technologies, but this would represent a quite different development path to that experienced by developed countries.

Structural barriers to export led development

It is believed that “a country has to have a certain level of infrastructure before it can draw benefits from more trade openness” (EC 2006, Preface by the EU Trade Commissioner Peter Mandelson). When this is not the case for a particular country, policies to promote greater equity are required in order to alleviate poverty and achieve development (Brander 2005, p3). Although such measures maybe proposed within SIA, there is no guarantee of uptake by national governments and trade partners have limited influence over their implementation. Therefore, the question of equitable development and poverty alleviation may well be dependent on the governance structure in developing countries.

Therefore, if it is accepted in principle that trade liberalisation has the potential to promote development in the least developed countries, in reality there are a number of barriers to such trade-led development:

1. **The agricultural policies of developed countries** often limit developing countries’ access to commodity markets where they have a comparative advantage. Where developed countries are not in competition, tariff escalation often prevents developing country producers from achieving the greater profits which would be available if they processed their own commodities before export (see section 1.1.1).
2. **The lack of governance** and political stability in some developing countries prevents national policies which might mitigate the threats and distribute the benefits of trade liberalisation equitably (see above). In addition, lack of political stability can lead to reduced foreign investment and therefore reduced incomes available to developing countries (see section 1.2).
3. **Fluctuating and declining commodity prices** and the highly competitive nature of commodity markets leads to limited margins for investing in infrastructure or cleaner technologies (see the ‘commodity trap’ in section 1.3). The rent within product chains is often captured by large vertically integrated trans-national companies who utilise the trading structures established under colonial rule (see Girvan 1987).

Many NGOs presently engaged in such debates are often highly critical of the impact trade has on the poorest people in the world (see for example FOEI 2003). Whilst it may be far from certain that the present situation will lead to appropriate development for these people; it might also be the case that low incomes and poor environmental practices may have occurred irrespective of trade. All three barriers to development as identified above are essentially failures of governance (i.e. failure of the international community to provide equitable trading arrangements and the failure on the part of developing country governments to provide stable investment environments and manage the impacts of production or invest in higher value alternatives to primary commodity production). It is

therefore argued by some that the governance structures which affect the trade in commodities need to be improved in order to achieve appropriate development in least developed countries, rather than halting the move towards the liberalisation of trade.

Ekins (1994, p14) explores the possibility that commodity production for export might lead to the expropriation of land previously used for poor subsistence farmers and indigenous peoples. It is argued that this could lead to these people being forced to use more marginal and environmentally sensitive lands, leading to greater environmental degradation and therefore acting as a further driver for poverty. The lack of governance rather than necessarily the international trading system remains the cause of this outcome however. The previous lending policies of international institutions mean that many of the least developed countries are under pressure to pay back debt with foreign exchange. Furthermore, the governance structures within such countries often fail to protect the interest of the least well off. This will often lead to the loss of rights and expropriation of land. The need for trade liberalisation to be combined with appropriate governance structures is therefore a central issue in the trade, development and environment debate which is explored in the next section.

3 Traded commodities and SIA

3.1 General SIA framework

SIAs aim to identify and describe the cause, the magnitude and the nature of each sustainability impact in a way that can be easily understood and compared with other sustainability impacts. Each sustainability impact identified needs to be causally linked to the trade measure or measures that are considered to be its origins. There are four stages to the SIA as proposed within the EU-Chile SIA (Planistat 2002, p. 17):

1. **Description** of the scenarios or possible outcomes of the trade negotiations.
2. **Identification** of the effects to be studied and the methods of analysis. This task includes the screening of the expected outcomes of the trade agreement for possible impacts; and the ‘scoping’ or definition of the methods to be used to examine the areas of interest in more depth.
3. **Assessment** and comparison of the main sustainability impacts and analysis of the quality of the information available.
4. **Development** of mitigation and enhancement responses to the sustainability impacts as identified (often called flanking measures).

For the EU-Chile SIA, initial screening and evaluation of the initial economic effects of the trade agreement (stage two) is made through a Computable General Equilibrium (CGE) framework, namely the General Trade Analysis Project (GTAP) model. “This is a tool for analyzing market transactions based on utility maximization and profit maximization by economic entities such as households and businesses, as well as inter-market transactions. The model is able to quantitatively assess the impacts of economic policy changes on the industrial structure, resource allocation, income allocation, and other items through changes in relative prices and the changes in the behaviour of economic entities in response to relative price changes” (Planistat 2002, p.45).

Stage three of SIAs uses methods to identify specific potential sustainability impacts due to the results from the model. Both quantitative and qualitative methods are used; and information and analysis is collected and discussed with national and international sector experts with differing viewpoints. The final assessment summarises and compares the full impact of the trade agreement. This is done through causal chain analysis which aims at identifying the significant cause-effect links between a proposed trade measure and its consequent economic, social and environmental impacts. Mitigating and enhancement (otherwise known as ‘flanking’) measures are discussed and proposed in stage four. These are activities that could be undertaken to counteract or mitigate a negative sustainability impact or to enhance a positive sustainability impact. The mitigation of potentially negative impacts often relates to the implementation of domestic policy.

3.2 SIAs and commodities

The process of assessment (i.e. stages three and four) of the impacts of commodity production within the SIA framework largely follows the same process as the analysis of other sectors. There are a very wide range of methods of assessment used for each sector

when considered in detail. However, there is a generic identifiable process for all sectors. This is shown here with reference to the processes required for the assessment of grains, other agriculture and forestry within the EU-Chile SIA (Planistat 2002, p. 81-100):

1. **Agreement scenario** - The CGE model is used as a projection of future changes if agreement is reached.
2. **Base case** - Historical trends within the sector are used as the basis for a base case scenario.
3. **Sector analysis** - Present issues and pressures within the sector are identified and the impact of changes in output assessed (for example, as to whether the impacts are scaled with output, or whether technological improvements will reduce this scale effect).
4. **Sustainability assessment** - A range of methods are used to further assess the secondary impacts (environmental, social, and economic) of the projected changes relative to the base case scenario.
5. **Drawing up of flanking measures** – The knowledge gained during the sector analysis and sustainability assessments is used to propose mitigation or so called flanking measures.

Secondary impacts

Blobel (2005, p.7) discusses five types of trade-related effects: product effects (effects on trade flows in certain products), scale effects (effects on the level of economic activity), structural effects (effects on the structure of economic activity), regulatory effects (effects on environmental and social regulations), and technology effects (effects on technology transfer and production processes). The CGE model does not just consider direct changes in the scale of trade due to changes in tariff regimes, but also estimates corresponding changes in demand for industrial inputs within a country. Retaining the EU-Chile as an example, Chile is already a major producer and exporter of copper to the EU. The reduction in tariffs on copper imported from Chile might only cause a small increase in demand for the commodity. However, reductions in tariffs on manufactured goods might lead to a much larger shift in production of goods made in part with domestically mined material. Therefore, such equilibrium models can begin to predict structural changes.

Assessment methods

For processes three and four and five as identified above in the EU-Chile SIA, “Both quantitative and qualitative methods are used; and information and analysis is collected and discussed with national and international sector experts with differing viewpoints” (Planistat 2002, p.18). It is difficult to generalise the types of assessment methodologies applied for commodity production. However, due to its extensive requirement for land and use of the environment services, SIAs of commodity production often adapt approaches used within Environmental Impact Assessments (EIA). Another characteristic of commodity production, particularly agricultural production, is its extensive use of unskilled labour. To understand the vulnerability of these workers to change, in-depth analysis of the sector and its labour force is required as well as analysis of the prospects of commodity price fluctuation.

The IDPM methodology applies the general approach of Causal Chain Analysis (CCA) to assess the social and environmental outcomes associated with a particular market response predicted by the GTAP model (Blobe (2005, p8). The use of economic optimisation models as the basis of predicting social and environmental outcomes has its pitfalls, particularly when modelling the behaviour of commodity producers. As will be discussed in the next section, the behaviour of producers, and the lack of governance capacity mean that commodity markets do not always conform to such rational profit maximising models, particularly in relation to developing countries. CCA is therefore a useful way to distinguish the consequences of trade liberalisation from pre-existing structural issues. To achieve this, a sound country specific sectoral analysis is crucial. If this line of argument is accepted, global level SIAs which set out to predict the likely impacts of multilateral reforms to agricultural subsidy need to be treated with great caution. It would be impracticable to fully understand the particular market responses and governance failures of the main commodity producing countries and how these might interact.

An often used alternative is to use descriptive in-depth case study approaches to provide on-the-ground, empirical insights which cannot be generated with modelling approaches. A drawback of such approaches is that their methodologies are insufficiently developed or explained and they are often unable to separate their findings from other factors of change. Such case studies risk merely identifying associations between traded commodity production and sustainability impacts and are therefore not in a position to provide valid predictions for future trade liberalisation. Another disadvantage is that there is a very limited possibility to generalise from case studies (see Blobe 2005).

In his analysis of uncertainty, Blobe (2005, p.10) proposes that uncertainty is not always the result of a lack of data or adequate methodological tools but may also result from differing conceptions of reality, priorities, and systems of value of different actors. He goes on to report on an entirely different approach to the assessment of cause-effect relationships. The approach examines the factors that make a socio-ecological system vulnerable or resilient to changes, and makes an assessment of the ability of such systems to respond to changes.

Outputs from SIAs

There are two main outputs for each sector: a summary table showing the sustainability impacts of the proposed agreement, and a list of flanking measures to mitigate and enhance any significant potential impacts. As an example, the summary table for the grains and other agriculture sectors within the EU-Chile SIA is shown in Figure 2.1 and the proposed mitigation measures in Box 2.1.

Figure 3.1 – Example summary of sustainability impacts (for the grains and other agriculture sectors in the EU-Chile negotiations)

<i>SIA processes applied</i>	Impact of agreement <i>1 & 3</i>	Base case <i>2 & 3</i>	Equity <i>3 & 4</i>	Reversibility <i>2-4</i>	Capacity to change <i>2-5</i>
I Economic					
Real income	△	?	▽		
Net fixed capital formation	△	△	▽		
Employment	?▽	▽	▽		↑
Consumer effects	▽	△			
II Social					
Poverty	▽	▽			△
Health and education	▽	▽			△
III Environmental					
Environmental quality	▽	▽			△
Biological diversity	○				
Other natural resource stocks	▽	▽			△

Source: Adapted from Planistat 2002, p. 88

Note: The impact of the agreement is always filled in but the other columns are completed as required to describe the sustainability impact.

Symbols:

- - Non-significant impact compared with the base situation
- △ - Positive lesser significant impact (marginally significant, by itself, to the negotiation decision)
- ▽ - Negative lesser significant impact. (marginally significant, by itself, to the negotiation decision but a potential candidate for mitigation)
- ▲ - Positive greater significant impact (likely to be significant, by itself, to the negotiation decision)
- ▼ - Negative greater significant impact. (Likely to be significant, by itself, to the negotiation decision. Merits serious consideration for mitigation)
- ↑ - Positive and negative impacts likely to be experienced according to context
- ? - Net effect is uncertain

As shown in Figure 3.1, in addition to the sustainability impacts which might be expected under the agreement, sector level summary tables also consider:

- **Existing conditions** – i.e. Extent of existing economic, social and environmental stress in affected areas
- **Equity** – i.e. Equity of change and how it affects different sectors of the population.
- **Irreversibility** – i.e. the potential for irreversibility of the change.
- **Capacity to change** – i.e. the regulatory and institutional capacity to implement mitigation or flanking measures.

Flanking measures

An important part of the SIA process will be the prevention, mitigation, and enhancement measures (so called ‘flanking measures’) which are proposed to tackle the identified Sustainable Development impacts. These will very usually propose phased liberalisation to allow for market actors to adjust, policies to improve governance structures and market competitiveness and failing this, social and environmental protection initiatives to prevent the impacts. Some proposed flanking measures will be aim to tackle very particular issues as identified in the particular SIA. However, many will appear in most

SIA. A good example of relatively generic set of proposed flanking measures is shown by the SIA on fisheries and the WTO (Kleih 2006) as shown in Box 3.1.

Box 3.1 – Example of prevention, mitigation, and enhancement (flanking) measures (WTO fisheries)



Source: Kleih 2006, pp12-13

3.3 SIAs and the minerals sector

Trade in minerals and metals are subject to limited trade restrictions. The EU has a policy of low tariffs on imports of mineral basic raw materials with modest protection of the refining and transforming industries. For example, import tariffs for non-ferrous metals range from between 0% (copper and nickel) and 6% (aluminium). The trade in minerals and metals is the subject of limited debate within trade fora, and therefore have undergone limited assessment within SIAs. In cases of low tariffs, trade liberalisation tends to lead to indirect sustainable development impacts due to increased demand for raw material by domestic processing and manufacturing sectors resulting from liberalisation. Perhaps the best example of a SIA addressing this kind of issue for metals

is the SIA undertaken during the EU-Chile trade negotiations (Planistat 2002). This is now used as a case study for the minerals and metals sectors:

Background and introduction

Chile is a major actor in international mining. It possesses one of the largest mining zones of the world. Mining is the most important economic activity in Chile accounting for 37% of total exports in the year 2000, with copper, its main product, reaching 30% of shipments. Chile has more than 25% of the world reserves of copper. It is leader in the production of sodium nitrate and potassium nitrate. It has the largest reserves of selenium and rhenium. Furthermore it is the second world producer of lithium, molybdenum and iodine. The Chilean mining sector already faces serious environmental challenges and in some cases serious environmental damage as already occurred:

- **Mining sector** - One of the most significant challenges is the mining sector's demand for water. The main mining area in the north of Chile is one of the driest deserts in the world and experiences permanent water scarcity. The sector's management of water has been a growing cause for concern since the doubling of copper output during the 1990s significantly increased the demand for water. Some experiences have been documented in which small rural communities have been left without water supply due to the installation of mining works in their immediate surroundings.
- **Metals sector** - The main environmental concerns in the non-ferrous metals sub-sector (excluding copper) have to do with the fulfilment of the effective norms in atmospheric emissions and management of solid wastes. Specific standards have been set for some processes within this sector. Within two years, the smelters are required to reduce emissions by 75% in their smelting process and their diffuse emissions in sand plants by 100%.

The assessed impacts of liberalisation

The global preliminary SIA led to the selection of Non Ferrous Metals as one of twelve sectors of the Chilean economy, for which the potential for a sustainability impact assessment was identified.

- **Economic** - The proposed trade liberalisation with the EU would lead to greater processing of ores and export of metals by Chile (increase of USD 39.2 million). Whilst exports of mined materials would decline (by 0.4% or USD 10 million), increased domestic demand would result in a 0.36% increase in mine output. The impact of the trade agreement on the Non Ferrous and Mining sectors is expected to improve sector real income and net fixed capital formation.
- **Environment** - A key consideration in the assessment of future environmental impacts is whether impacts will increase proportionally to production (the environmental scale effect) or the increased output will be met to some extent by improved technology (technique effect). The assessment found that, while there will be a technique effect, the net environmental impact is still expected to be a negative environmental impact on land, air and especially water indicators. There is a need for consistent application and policing of industry best practice in environmental regulation. This is especially important where local inhabitants'

water supplies may be affected. Technological transfer can play a key role in this sense, as it may allow Chilean industries to access cleaner technologies at a reasonable price.

- **Social** - Although somewhat uncertain, employment could increase. Due the technological characteristics of the sector, the use of labour has a tendency to decline. However average sector salaries could increase as the decrease in employment will mostly be of less skilled workers. The model also predicts an increase in processing employment, both qualified and non-qualified. The people most affected by these changes would be non-qualified labour and women. New investment could lead to improvements in worker health and safety.

Figure 3.2 – Summary sustainability impacts for the mining sector in the EU-Chile SIA

<i>SIA processes applied</i>	Impact of agreement <i>1 & 3</i>	Base case			Capacity to change <i>2-5</i>
		<i>2 & 3</i>	Equity <i>3 & 4</i>	Reversibility <i>2-4</i>	
I Economic					
Real income	△				
Net fixed capital formation	△				
Employment	?▽				
Consumer effects	▽				
II Social					
Poverty	?				
Health and education	▽				
III Environmental					
Environmental quality	▽	▼			△
Biological diversity	○				
Other natural resource stocks	○				

Source: Planistat (2002, p.110)

See Figure 3.1 for explanation of symbols

3.4 SIAs and the forestry sector

Developed countries tend to impose low import tariffs on forest products. Whilst developing countries often apply import tariff escalation, the majority of trade in forest products presently takes place within EU, NAFTA, APEC, and under other various regional trade agreements, which may already apply zero or close to zero tariffs. Katila & Simula (2005) explores the impacts of reductions in tariffs as a result of the Doha negotiations and found that although liberalisation in the forest sector would result in increased trade and overall economic gains, it would not likely influence forest product consumption and production much in aggregate (Katila & Simula 2005, p.v). He does however find that liberalisation in the sector would lead to a number of winners and losers in economic terms, and ambiguous social and environmental impacts.

Changes to trade flows (economic winners and losers)

- ↑ **Inter-regional and intra-regional** trade flows would be strengthened. Especially South-to-South trade is predicted to increase within Asia, within South America, and from South America to Asia (Japan, China, Taiwan, Republic of Korea and

- South Asian countries), because the import tariffs and tariff escalation are the highest in developing and newly industrialised countries. Trade from Asia to Latin and Central America would also increase (e.g. plywood exports to Mexico).
- ↑ **Wood-based panels and sawnwood** and some paper products would be exported increasingly.
 - ↑ **Developed forest-rich-export-oriented countries** such as Canada, the United States, Finland, Sweden and New Zealand would benefit, especially from exports of paper products.
 - ↑ **New EU members** and accession countries as well as the CIS and other CEEC countries are likely to increase their sawnwood production and share of the European market.
 - ↑ **Developing countries with considerable forest resources** or potential for fast-growing plantation development, (Indonesia, Malaysia, Brazil, Chile, etc.) are expected to benefit in economic terms.
 - ↑ **Forest-rich developing countries** that already enjoy good market access, and have competitive advantage in terms of infrastructure, technology, research capacity, and information, low labour costs, skilled people, political stability and access to capital will benefit. These countries are likely to attract foreign direct investment, which will help to improve efficiency in production, make the industry more competitive, and provide more employment.
 - ↘ **Other forest-rich developing countries** such as Papua New Guinea and the Congo Basin countries are not in a good position to gain due to poor access to capital, inadequate infrastructure, low rates of foreign investment, shortage of skilled people and technological know-how. However, these countries may increase their log and sawnwood exports, and in some cases also export of panels.
 - ↑ **China, Malaysia, Thailand and Brazil** would likely increase exports of wooden furniture and secondary processed wood products.
 - ↑ **Consumers and producers in developing countries** are likely to benefit from cheaper and better quality exports. The incremented benefits in each case would depend on the past level of tariffs.

Social and environmental impacts

All of the case study countries considered by Katila & Simula (2005) (Brazil, Ecuador, Mexico, Indonesia, and Tanzania) are likely to suffer negative social and environmental impacts associated with liberalisation. However liberalisation is unlikely to be the direct cause. Trade liberalisation can accentuate negative trends in countries such as Brazil, Indonesia, and Papua New Guinea where forest governance systems are still relatively weak. It is likely that the most serious negative environmental impacts are likely to be experienced in countries which contain regionally and globally unique biodiversity resources, but which suffer currently from sustainability and governance problems. This could offset economic gains from further trade liberalisation unless adequate safeguards are adopted.

- **Social** - Unsustainable forest exploitation may cause social conflicts and infringe on indigenous people's rights. These incremental impacts may be relatively small compared to the impacts of agricultural trade liberalisation and the on-going

- processes that are causing deforestation and forest degradation, including factors such as population growth, economic growth, infrastructure development, subsidies, product pricing policies and macro-economic reforms.
- **Equity** - Especially in developing countries, there would likely be negative impacts on equity. Most of the benefits from trade liberalisation are likely to accrue to large companies often located close to urban centres. Small and medium-sized enterprises in developing countries would not find it as easy to benefit from new trade opportunities as larger companies. In fact, in many developing countries (e.g. in Eastern Africa, India, Vietnam) one can expect many small companies to succumb to increased competition due to imports.
 - **Environmental** - The negative impacts on biodiversity and soil erosion would in most cases result from unsustainable harvesting, which can be associated both with illegal logging and legal logging.

3.5 SIAs and the fisheries sector

Kleih (2006) considers the potential economic, social and environmental impacts of trade measures arising from the Doha Development Agenda negotiations that have an impact on fisheries production and trade. Such trade measures include:

1. **Market access** (i.e. tariff and non-tariff measures).
2. **Subsidies** to the fisheries sector in different forms.
3. **Other trade measures** including all non tariff barriers to trade.

The SIA is broken down into impacts of developed, developing non-ACP (African, Caribbean and Pacific)/LDC and ACP/LDC countries. Screening and scoping led to case studies being undertaken in Ghana, India, Peru, Seychelles, Thailand, and Uganda and partial case studies being prepared for China, European Union, Japan and USA.

3.5.1 Market access in the fisheries sector

Developed countries often have zero or relatively low tariffs on fish, but there are cases of escalation with some peaks (e.g. processed tuna). EU rates on average are around 11%, but zero rates apply for ACP and LDC states. The proposed 'Swiss formula' would likely provide for maximum tariffs of about 10% for imports into developed countries and about 15% for developing countries. Kleih (2006, p7) reports that the anticipated impact of tariff reductions in the sector would be significant expansion in imports into the EU and US and corresponding benefits for a number of developing country exporters but losses for a number of developing countries as a result of preference erosion, notably ACP countries. This will also result in reduced prices for consumers in the EU and US.

The following anticipated Sustainable Development impacts were reported:

For the EU and US:

- **Social** - Loss of livelihoods in fishing communities may be particularly significant since in some cases there may be few alternative options available and will impact female workers disproportionately.

- **Environmental** - As capture primarily depends on catch control, increased imports do not necessarily mean less pressure on fish stocks.

For non-ACP/LDC developing countries:

- **Economic** - The overall impact of tariff reductions on non-ACP/ LDC countries is expected to be either neutral or positive in economic terms. Thailand is set to become a major beneficiary of trade liberalisation and the expectation is for an increase in economic activity, exports and foreign exchange generation from both tuna canning and shrimp farming. The impact of more relaxed tariffs is expected to be positive in terms of consolidation of India's market share and diversification into other markets
- **Social** - Positive developments are expected where employment will increase. Whilst this may trigger social changes, women are likely to benefit where fish processing industries will be further developed (e.g. Thailand).
- **Negative environmental** impacts are expected as a result of aquaculture expansion. For example, there may be further loss of agricultural land and water pollution, and ecosystems will be affected through increased demand for feed (e.g. small pelagics used for fish meal). Thai tuna processors may be less prepared to demand that raw material comes from well managed fisheries, which could negatively impact on stock levels.

For ACP/LDC developing countries:

- **Economic** - Increased competition will force fish processing plants to attempt to reduce costs through measures such as paying lower prices for raw material or laying off workers. There is a danger that some processing industries (e.g. tuna canneries) will collapse, threatening the viability of transshipment centres such as Mahe in the Seychelles. In addition, government revenues (e.g. tax income) will be reduced, and a drop in foreign exchange earnings may lead to greater exchange rate instability.
- **Social** – Unemployment is expected to increase where workers will be laid off or processing plants will close, and women will be particularly affected in plants employing a high proportion of female workers. Higher levels of unemployment, in turn, will lead to increased poverty amongst the workforce of affected industries, including input suppliers, and knock-on effects are likely to impact on health and education.
- **Environmental** - A declining fisheries and processing sector could well lead to a reduced national management and administration capacity, resulting in a reduced commitment to monitoring, control and surveillance (MCS) activities by governments in affected countries.

3.5.2 Subsidies in the fisheries sector

Many countries have previously provided subsidies to their fishing sectors, including developing countries that often provided indirect subsidies such as subsidised fuel. The Doha mandate provides that in the context of Rules negotiations, participants shall aim to clarify and improve WTO disciplines on fisheries subsidies, taking into account the

importance of this sector to developing countries. There is an ongoing debate within the WTO negotiations about how to achieve this.

The so called Friends of Fish group (e.g. New Zealand, Chile, Peru, USA) argue that all fisheries subsidies be prohibited apart from certain exceptions. The EU's position is similar to this as they argue that subsidies contributing to overcapacity are prohibited (e.g. subsidies for vessel construction or renovation) but capacity decreasing subsidies and support for the development of alternative income sources in affected fishing communities are acceptable. A more "bottom-up" approach is taken by countries such as Japan, Korea, and Taiwan who argue that subsidies are an issue only where they lead to distortions in trade. Finally, this bottom-up approach is shared with Small Vulnerable Coastal States (SVCS) and ACP countries, but because their priority is to ensure that they are able to enhance their level of development and increase their integration in the multilateral trading system.

Kleih (2006) predicted the following Sustainable Development outcomes if subsidies were reduced:

Developed countries

- **EU** - A positive environmental impact as a result of subsidy reductions is likely to happen in the medium to long-term when the current generation of fishing fleet will reach the end of its useful life.
- **Japan and USA** - To the extent that a reduction in subsidies leads to an increase in fishing costs, then diminished production, consumption and/or trade can be expected, with an offsetting beneficial impact on fish stocks.

For non-ACP/LDC developing countries:

- **India** - a further reduction of indirect subsidies (e.g. fuel price increases) might affect the viability of fishing operations. This would have negative social consequences, but a positive impact on the environment.
- **China** - Attempts to reduce capture capacity, especially when combined with attempts to promote more sustainable management regimes, may imply reduced catch and hence some combination of reduced consumption and/or trade, especially for higher value demersal species that are most under threat from over-fishing.

For ACP/LDC developing countries:

- **Ghana** - The removal of indirect subsidies would lead to a significant number of people engaged in fishing going out of business, with negative knock-on effects on poverty, primary health care and education, but potentially positive implications for the environment as fishing effort will be reduced. The removal of subsidies to foreign fleets to fish outside their territorial waters will help replenish the stocks within Ghana's economic control.
- **Seychelles** - Abandonment of the FPA agreement (controlled access agreement with the EU) could significantly reduce government receipts, potentially affecting

resource management as FPA compensation is partly ring-fenced for fisheries management, especially monitoring control and surveillance.

3.5.3 Other trade measures in the fisheries sector

Sanitary and Phytosanitary Measures (SPS), Technical Barriers to Trade (TBT) and Anti Dumping Measures (ADM) have all been used within the fisheries sector. Typically, the sector in the affected country will adapt, and in the case of SPS, the sector will often improve standards in response. The following are examples of the impacts and outcomes from a number such cases.

1. **EU SPS ban on Uganda's Nile perch** export represented major shocks for the fishery sector, leading to short term loss of exchange earnings, bankruptcies and unemployment. In the medium, to long term, however, the sector has recovered well, with a smaller but better equipped processing sector, improved marketing strategy, and strengthened institutions.
2. **EU, US and Japan's SPS measures on India** have been by far the most significant in terms of their impact upon the seafood export sector in the country and led to a virtual reorganisation of its structure and operations. The gains were in terms of improving the local standards to international level, whilst the negative consequences have been the high cost of upgrading the industry, loss of livelihoods and reduced profitability.
3. **US's TBT Measures** affecting India in the form of a ban on shrimp exports to the US for not using appropriate measures to reduce turtle mortality caused by trawlers, had much less impact upon the sector.

Only to the extent that such non tariff barriers were motivated by protectionism would such impacts be avoided under a future hypothetical free trade scenario.

3.6 SIAs and the agricultural sector

The agricultural sector is a very large and diverse sector which produces significant volumes of commodities which are traded between many countries. In addition, agricultural commodities have undergone only limited liberalisation and tend to be the subject of numerous trade disputes. It would not therefore be feasible to cover all of the issues for the whole sector in a satisfactory level of detail. This Section therefore considers the sector through a SIA study (Maltais 2002) which assesses the prospects of global level trade liberalisation in two food crops (wheat and edible oil crops) with reference to eight country case studies. Figure 1.1 highlights that it is often these basic food stuffs that are the subject of the most contentious trade disputes and barriers.

The countries considered are reported in three groups:

1. Net food-importing developing countries (Egypt and Senegal)
2. Net food-exporting developing countries (Indonesia and Argentina & India)
3. Net food exporting developed countries (Australia, the USA and the EU)

The following liberalisation scenarios were used for the analysis:

- **The baseline scenario** only assumes that the Uruguay Round Agreement on Agriculture is fully implemented.
- **The intermediate scenario** comprises a gradual approach to liberalisation in the sector which incorporates the EU negotiation objectives. The objectives include:
 - i. Retention of blue and green boxes, possibly with some updating.
 - ii. An ongoing process of reducing trade barriers, support for exports and domestic agriculture whilst retaining these boxes.
 - iii. Support for various non-trade concerns including the multifunctional role of agriculture, food safety and quality, protection of the environment and animal welfare.
 - iv. Support for special and differential treatment of agriculture in developing countries, including increased (duty-free) market access for the least developed countries.
- **The liberalisation scenario** assumes “general acceptance, within all country groups, of comprehensive trade liberalisation in agricultural products and the removal of discriminatory market practices in domestic markets. This would require elimination of all forms of export subsidies, domestic support measures and import duties” and “that very limited, future changes are made to mitigate adverse environmental and social impacts.”

The following Sustainable Development impacts were reported in Maltais (2002):

Net food-importing developing countries (Egypt and Senegal)

- **Economic and social impacts** - Negative economic and social impacts due to increasing wheat import bills. Food security problems for vulnerable groups, such as rural women in the agricultural sector. Small-scale farmers are potentially impacted by increased competition from international markets, and inability to adequately improve productivity in an increasingly competitive domestic market, and commodity price/food security impacts.
- **Environmental impacts** - Senegal would see some negative environmental impacts due to increases of production in the groundnut sector, as there is no indication that currently unsustainable farming practices will be significantly affected by liberalisation (negative environmental impacts are not causally linked in the Egyptian case).

Net food-exporting developing countries (Indonesia and Argentina & India)

- **Economic impacts** - In Indonesia and Argentina, positive economic impacts can be expected for both liberalisation scenarios. The economic impacts are not conclusive for India but depend on India’s ability to meet domestic wheat demand.
- **Social impacts** - In all cases it is also suggested that vulnerable groups, especially small-scale farmers and the rural poor, may be negatively affected by liberalisation. These groups may be more severely affected by the liberalisation scenario due to problems in adjusting to more significant economic changes. In Indonesia, some social groups would gain while others, particularly forest

- dwelling indigenous groups, would incur negative impacts. Specific causal links were more difficult to establish in the Argentina and Indian cases. India in particular demonstrates a great deal of diversity between regions, although the potential for negative gender impacts is clear.
- **Environmental impacts** – There is a wide diversity in the results for these three countries.
 - Indonesia demonstrates clear negative impacts for its forests, especially in the liberalisation scenario, where a direct causal link is found in the assessment.
 - Argentina shows no significant negative environmental impacts in the short term and only potential impacts in the longer term due to increases of input use and dependence on domestic policy developments.
 - In the Indian case the environmental impacts are poorly causally linked, resulting in more ambiguous results.

Net food exporting developed countries (Australia, the USA and the EU)

There are positive economic impacts for all of these countries in both liberalisation scenarios.

- **In Australia** positive impacts entail both positive overall *economic* welfare impacts and positive impacts on producers. Short-term *social* impacts are anticipated due to positive economic impacts in the sub-sectors. However, over the long-term there are risks of potential negative social impacts associated with the adjustments needed to manage land degradation problems, particularly associated with dry-land salinity issues. As a result, social impacts in the long run are more dependent on emerging circumstances. Negative *environmental* impacts are associated with production increases and problems with dry-land salinity, and tend to also be more significant over the long run.
- **In the US**, large farm households are expected to gain while intermediate farm households may face some adjustment problems in an increasingly competitive market. As a result *social* impacts are shown to be positive in the intermediate scenario and more ambiguous in the liberalisation scenario. The intermediate scenario entails more opportunities to use domestic support measure to mitigate negative impacts on intermediate farmers and to deal with *environmental* impacts of the sector.
- **In the EU** we see positive *economic* impacts from liberalisation in terms of general welfare and budgetary expenses, but clear negative impacts on producers, particularly in the liberalisation scenario. This results in more context specific economic impacts. *Social* impacts are expected to be more positive in the intermediate scenario as there is some indication that the EU has a better-established agenda to address social and environmental impacts in the agricultural sector. Ambiguous *environmental* impacts are shown in the liberalisation scenario due to predictions of production decreases. More regionally specific analysis is required to establish the environmental effects of these production decreases.

3.7 SIAs and sustainable commodity production

The discussion above shows that SIAs have proved effective in identifying the impacts (positive and negative) of commodity trade liberalisation. They have also proposed flanking measures to mitigate the negative impacts. However, these proposals have had a limited impact on the Doha trade negotiations and, in respect of agriculture, have not proved adequate to enable a successful conclusion to be reached. The next section identifies why trade negotiations in the current global economic context are so difficult to conclude. To be effective, SIA analysis and proposals will have to reveal and take explicit account of these ‘contextual realities’.

4 SIAMETHOD and the ‘contextual realities’ of trade negotiations

It is intended that the results of SIAs feed into and affect the outcome of trade negotiation. This has not always been occurring as effectively as originally anticipated. Whilst most SIAs have indeed been provided to negotiators and have provided guidance on how sustainable development impacts from trade liberalisations might be enhanced or mitigated, it has not always been clear how the indicated impacts might steer the decision to liberalise. Furthermore, SIAs have struggled to provide guidance on dealing with the contextual negotiating realities, which act as barriers to trade liberalisation, and what this might mean in terms of compensation between the parties. This is where the SIAMETHOD approach, as outlined in Voituriez *et al* (2006), aims to contribute towards the development of the trade SIA methodology.

4.1 SIAMETHOD’s ‘contextual realities’

Since the Doha WTO Conference in 2001, multilateral trade negotiations have come to a standstill, while proliferating bilateral or pluri-lateral free trade agreement initiatives display an uneven pace of achievements. Voituriez *et al* (2006) explores why this might be even though trade economists have long advocated the economic benefits to all parties of trade liberalisation. The paper identifies five ‘contextual realities’ which may explain why countries may resist trade liberalisation. These are the:

1. **Protectionist bias argument** - Protectionist lobbies act to protect vested interests.
2. **Adjustment cost argument** - The social costs during the process of economic adjustment might represent a barrier to liberalisation even though the prospective long-term efficiency gains might be greater.
3. **Externality argument** - Some countries may be worse off due to the social and environmental impacts of liberalisation.
4. **Collective preferences argument** - The social fabric might be endangered by a proposed trade liberalisation.
5. **Exception argument** - Some sectors intrinsically deserve exception to trade liberalisation, and some practices should not be allowed to benefit from it.

4.1 Commodities and the contextual realities

It is worth exploring how the impacts predicted by existing SIAs for commodity sectors (as shown in Section 3) would map onto these SIAMETHOD contextual realities (CRs). To do this, it is useful to try to further generalise and characterise the results of the SIAs shown in Section 3, at least for the agricultural, fisheries and to some extent forestry sectors. Although this represents a highly simplified characterisation of a complex situation, it does begin to demonstrate how the CR arguments that underlie commodity trade negotiations can begin to be addressed. In terms of the impacts from liberalisation in these sectors, there appear to be three distinct groups of countries experiencing characteristic sustainable development pressures as a result of trade liberalisation:

- **Developed countries** mostly face overall reductions in outputs due to the removal of their trade barriers with corresponding consumer and revenue benefits. Whilst

some sectors will respond by further intensifying leading to environmental pressures, many others will decline leading to social adjustment costs and long term changes to communities and rural environments.

- **Low cost developing countries** (such as Brazil, China and India) are likely to increase their levels of production in response to liberalisation. The economic benefits may often be captured by larger rather than small companies, although the benefits will in many cases trickle down in the form of increased employment. Environmental pressures are likely unless technological transfer occurs and governance structures respond. More vulnerable producers and consumers might face social impacts as a result of the loss of direct and indirect subsidies.
- **Vulnerable developing countries** such as APC and LDC will often struggle to compete due to increased competition and the loss of trade preferences. Consumer prices may also rise as a result of the removal of developed countries subsidies. These changes will cause several social and environmental pressures as some producers respond to intensify production to maintain revenues. The degree of social and environmental impacts, and the ability of the populations to adjust, is dependent on the governance capacity available within these countries to implement mitigating policies.

4.1.1 The protectionist bias argument and commodities

Agricultural lobbies in OECD countries clearly have a motive to promote the protection of agricultural markets against cheaper imports from developing countries. Whilst the arguments put forward by such lobbyists will appear to take the form of the more justifiable motives as set out in the latter four CRs, it is possible that their prime motive is to maintain their sector's interest against competition. Within the fisheries sector, there are pressures to maintain quota and subsidy levels even when there is evidence of declining fish stocks. This is motivated by both concerns of the social costs to communities as well as the more narrow interests of boat owners. It would appear that the protectionist lobbies of the minerals and forestry sectors have been somewhat less effective in shaping trade policy, in developed countries at least. To understand the degree to which protectionist lobbies have been successful in influencing agricultural and fisheries trade policies, it is necessary to first make a judgement on the influence that the remaining four CRs have had, in the light of what is considered to be justifiable by the evidence in the SIAs.

4.1.2 The adjustment cost argument and commodities

At least some of the sustainable development impacts anticipated for developed countries as a result of liberalisation might be considered to be temporary adjustment costs and, although costly for the people involved, do not outweigh the long term benefits of liberalisation. The level of these costs would depend on the speed that trade barriers are removed and the level of adjustment support available within the country. The kind of phased-in de-coupled support provision being proposed within the WTO negotiating rounds, combined with the high level of governance capabilities available in developed countries means that these impacts would be limited. This perhaps explains why at least

some developed countries are prepared to enter into serious negotiations over the liberalisation of these sectors, albeit with some reservation and conditions.

Low cost developed countries face a number of economic and social changes as a result of liberalisation. A range of economic structural changes might occur as a result of economic development. Also, more vulnerable producers and consumers would need to adjust to the loss of subsidies and governments might have to respond to the environmental pressures brought on by increased production and act to protect some environments and communities. However, in the context of overall economic growth, these adjustments have generally been considered (by their governments at least) to be a tolerable part of these countries ongoing development.

This leaves out areas of impacts which may not be considered to be adjustment costs. These include:

1. **Adjustment costs** which, due to a lack of governance in some more vulnerable countries, actually represent a permanent cost which may outweigh the benefits of liberalisation.
2. **Permanent impacts** which in aggregate outweigh any long term economic benefit to an individual country.
3. **Changes which are not acceptable** to either some or all negotiating parties because they pose a threat to the fabric of society concerned.

4.1.3 The externality argument and commodities

Avoidable external costs

Voituriez *et al* (2006) proposes that for some countries, the sustainable development impacts posed by further liberalisation are so great that it may not be in their interest to proceed in the absence of mitigation or compensation arrangements within trade agreements. Indeed the externalities resulting from existing liberalisations may have already exceeded the economic benefits for developing countries. This may have gone unacknowledged as the trade models used within SIAs anticipated net economic gains. Many of the SIAs reported in Section 3 reported the requirement for exporting governments to regulate and mitigate the impacts of trade liberalisation. However, many LDCs do not have the capacity (or the political will) to implement such measures, and the communities involved often have deficient power and representation to demand it. A positive outcome from further trade-liberalisation measures may require targeted assistance from trade partners in order that all parties can gain from the potential economic benefits of trade liberalisation without imposing excessive sustainable development impacts on vulnerable communities.

Unavoidable external costs

It is also possible that a proposed trade liberalisation poses less avoidable sustainable development impacts which are considered to exceed the benefits of liberalisation. Such a situation might occur for example when the impacts are set to scale up with production and exceed environmental carrying capacities. This is by no means a straightforward judgement for trade negotiators to make as sustainable development impacts cannot readily be put into monetary terms and compared with economic benefits. Nevertheless,

this is the judgement that is required and if any one negotiating party considers that the overall costs outweigh the benefits, they will be unlikely to wish to proceed. The potential to achieve overall benefits may still remain via compensation arrangements. This CR might therefore still be resolved if compensation payments are made, perhaps in the form of targeted transfers of clean production technologies.

4.1.4 The collective preferences argument and commodities

Whilst the reasons for the resistance of some developed countries to open up their agricultural markets might in part be explained by the preceding CRs, it is argued by Voituriez *et al* (2006) that the expansion of trade discipline into certain domestic policies may jeopardise the “social fabric” by restricting legitimate choices a government may wish to embrace so as to satisfy its citizens’ preferences on societal issues. Examples of what has been discussed as possible collective preferences include essential services provision, precautionary environmental and health regulations, and no use of child or forced labour in the production of imports. In the case of commodities, the changes and decline in agricultural production in developed countries predicted by SIAs might be considered to threaten the fabric of rural communities, and the environmental maintenance of the countryside, as well as the food security of the countries involved.

Voituriez *et al* (2006) proposed that countries be allowed to escape from trade liberalisation whilst compensating loser countries. Based on the evidence presented in the SIAs in Section 3, some kind compensation would be due to the lower-cost developing countries that stand to gain the most from a more open agricultural trading system. The more vulnerable LDCs may also be due compensation as a result of developed countries collective preferences on agriculture. However, as present trade preferences mean that trade barriers faced by these countries’ exports are often very low, compensation might be limited to compensating for the impacts due to export subsidies and the instability caused to international commodity markets by overproduction.

4.1.5 Universal preferences and traded commodities and commodities

This CR is similar to the previous one although it relies on the preference to be universally accepted and therefore would not imply the provision of compensation. The distinction between this and collective preferences might be a difficult distinction to make within a negotiating context as the impacts often do not threaten all parties. In the event that a trade partner proposes that a social preference is universal, and this is disputed within a trade negotiation, the disputing party might be motivated by the prospect of compensation. It is also of course possible that the party proposing the universal preference is motivated by the avoidance of paying compensation. Therefore, this needs to be resolved with reference to existing practices, norms, conventions and treaties. Within the WTO regime, there appears to be a number of collective preferences already in existence, some of which call for a balance to be struck:

1. The GATT agreement envisages a process of trade liberalisation, which may therefore be regarded as a universal preference among WTO members. It also calls for this to be done in the context of sustainable development.

2. Article XX of GATT acknowledges human health, prison labour and the conservation of natural resources as potential exceptions to general non-discrimination. However, apart from the use of prison labour, these can not be imposed on other countries imports without further agreement (see Section 5).
3. In Doha in 2001, Ministers approved a linked decision on implementation problems developing countries face in implementing the current WTO agreements. Later agreed refinements called for consideration of the capabilities of developing countries. This might therefore justify LDCs who do not have the capacity to manage change not to open up their markets, and perhaps to do so without providing compensation in certain circumstances.

The various methods of mitigation and compensation required to implement this SIAMETHOD framework for commodities are explored in Section 6 and 7. The legal frameworks which these methods need to be consistent with are now explored in Section 5 below.

5 International Trading arrangements and the environment

Trade in commodities is not at present a recognised topic of negotiation or analysis. However, many of the critical trade and environment issues and linkages actually have to do with commodity trade: agricultural and fishery subsidies and issues associated with the treatment of Process and Production Methods (PPMs) including GMOs and conflict diamonds. Commodity markets aim to limit the number of characteristics which determine the clearance price to what is absolutely essential to the use of commodity. This process can remove all traces of how the commodity was produced and therefore the information required for environmental protection. However, advocates of liberalised global trade believe that trade can offer the prospect of an improved environment (via development) if properly regulated. This balance is illustrated by a speech by the Director General of the WTO. Pascal Lamy:

“There is no doubt in my mind that both trade and biodiversity policies have the capacity to be mutually reinforcing....it is undoubted that completely unregulated trade can be harmful for biodiversity” (Lamy 2006).

It is therefore the challenge of the WTO to regulate trade to achieve the objectives of sustainable development, within the constraints of the present treaty, GATT 1994. In April 1994, a Ministerial Decision on Trade and Environment was adopted, calling for the establishment of a Committee on Trade and Environment (CTE). The aim of the work of the CTE is to make "international trade and environmental policies mutually supportive" (WTO 2004, p.6). The WTO seems to perceive its role as being to continue to liberalise trade, as well as to ensure that environmental policies do not act as obstacles to trade, and that trade rules do not stand in the way of adequate domestic environmental protection. The WTO does not consider itself to be an environmental protection agency and does not aspire to become one (WTO 2004, p.6).

5.1 Environmental debate within the Doha Development Agenda

In November 2001 in Doha, Ministers approved a linked decision on implementation problems developing countries face in implementing the current WTO agreements and agreed to launch negotiations on certain issues related to trade and environment. The CTE and the Committee on Trade and Development were asked to act as a forum in which the environmental and developmental aspects of the negotiations launched at Doha could be debated (WTO 2004, p.5). Paragraph 32(i) of the Doha Declaration calls on CTE to give particular attention to *“the effect of environmental measures on market access, especially in relation to developing countries, in particular the least-developed among them, and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development”* (WTO 2001b, p.7). The original mandate has now been refined by work at Cancún in 2003, Geneva in 2004, and Hong Kong in 2005.

WTO (2004, p.15) provides guidance for striking the appropriate balance between safeguarding market access and protecting the environment. Environmental measures should be designed in a manner that (i) is consistent with WTO rules; (ii) inclusive; (iii) takes into account capabilities of developing countries; and, (iv) meets the legitimate objectives of the importing country.

The CTE Special Session (CTESS) was established to deal with environmental issues within the negotiations whilst the CTE continues to deal with the non-negotiating issues of the Doha Ministerial Declaration. In addition, paragraph 28 of the Doha Ministerial Declaration instructs Members "to clarify and improve WTO disciplines on fisheries subsidies, taking into account the importance of this sector to developing countries" (WTO 2004, p.9).

The case law makes clear that the environment debate within the WTO is largely being driven by the concerns of developed countries about the environmental impact of commodity production. Many developing countries are concerned that trade restrictions will be placed on their exports, even in cases where the products are physically indistinguishable from less environmentally impacting products and the environmental impacts do not affect the importing country (i.e. the extraterritorial application of environmental standards). The debate therefore centres on whether **PPMs** can be used as a justification for trade measures, and if so, to what degree these need to be implemented with international consent by the adoption of a Multilateral Environmental Agreement (**MEA**). MEAs represent an additional challenge to the regulation of trade as they are often not signed by all WTO members, but the obligations accepted by participating countries potentially override the obligations they already have to maintain open markets for non-participating WTO members. These two issues are now discussed in turn.

5.2 Trade policy and MEAs

A lack of coordination has previously contributed to the negotiation of potentially conflicting agreements in trade and environmental fora (WTO 2004, p8). In practice there have not been any adverse rulings by the WTO on a MEA trade measure. All environmental measures challenged to date in the WTO have been unilaterally imposed rather than implemented as the result of an MEA (reported in Knigge 2005, p.3). WTO (2004) makes clear the WTO's concern that unilateral solutions are often discriminatory, and frequently involve the extraterritorial application of environmental standards and that multilateral cooperation through the negotiation of MEAs constitutes the best approach for resolving trans-boundary environmental concerns. It however asserts that negotiations for MEAs should not prejudice the WTO rights of any Member that is not a party to the MEA in question (WTO 2004, p.10).

Article 30(4,b) of the Vienna Convention on the Law of Treaties² states that if one of the two parties is not a signatory to one of the treaties, only the treaty to which both States are parties governs their mutual rights and obligations. However, the rights of WTO members not to have the extraterritorial application of environmental standards imposed

² <http://fletcher.tufts.edu/multi/texts/BH538.txt>

on them would appear to be potentially undermined by one of the Appellate Body's compliance rulings in the Shrimp case which stated that "*the chapeau of Article XX does not necessarily require the conclusion of an international agreement but only the serious and good faith efforts for the conclusion of it*" (see section 5.3 below).

Article 30 of the Vienna Convention on the Law of Treaties³ states that in cases in which both entities are parties to both regimes, the most recently agreed treaty prevails. Implicit in this is that WTO members are not able to rely on their rights under GATT if they subsequently choose to be party to a MEA which limits these rights. This is of course not the case for any MEA that became binding before GATT was (re)signed in 1994. The effectiveness of some of the older MEAs might therefore be undermined. A CTE report adopted by the Ministerial Conference in Singapore recommends that, where two WTO members are in dispute and they are both parties to a relevant MEA, they should resolve the dispute through the dispute settlement mechanism available under the MEA rather than the Appellate Body of the WTO.

5.3 Process and production methods (PPMs)

The WTO (2004, p. 17) reports that countries are within their rights under WTO rules to set criteria for the way products are produced, if their production method leaves a trace in the final product (e.g. cotton grown using pesticides, with there being pesticide residue in the cotton itself). However, there is less agreement over whether measures based on PPMs which leave no trace in the final product (e.g. cotton grown using pesticides, with there being no trace of the pesticides in the cotton). Therefore, PPMs refer to the way a product is produced rather than the characteristics of the product itself. As a general rule, international trading arrangements (i.e. the GATT agreement) require that domestic and imported 'like products' be treated the same. This principle is central to discussions around trade in commodities and the environment.

There have been a number of disputes over alleged discrimination based on PPMs, and to a certain extent uncertainty remains over whether discrimination is permissible based on a product's PPMs. If taken at face value, all of these disputes stem from the desire of some countries (in this case developed) to maintain higher environmental standards of production for all products they consume, whether imported or domestically produced. However, any barriers to trade are considered with a great deal of suspicion by developing countries as it has the effect of maintaining developed countries' technological advantage and weakens the principle behind international trade, comparative advantage.

GATT Article XX(e) already provides for discrimination against physically like products where they have been produced using prison labour. Within the SIAMETHOD methodological framework this is considered to be a *universal collective preference* as it was agreed specifically and universally. The PPM case law however deals with impacts of production which were not specifically set out in Article XX, but often rely on the

³ <http://fletcher.tufts.edu/multi/texts/BH538.txt>

more general exception ‘*relating to the conservation of exhaustible natural resources*’⁴ (GATT 1994: Article XX(g)) or *necessary to protect human, animal or plant life or health* (GATT 1994, Article XX(b)). The dispute which laid the foundations of much of the subsequent PPM debate were the so called ‘Tuna-Dolphin’ cases (case one between Mexico and the U.S. taken in 1991 and case two between the EU and the U.S. taken in 1994) and the 1998 shrimp-turtle case:

- **Tuna-Dolphin one** was brought by Mexico in response to the US Government placing bans on imported tuna from countries whose 'incidental kill ratio' of dolphins was greater than its own. It placed embargoes on countries such as Mexico in order to restrict imports from countries that imported tuna from the Eastern Tropical Pacific and exported that tuna to the United States. The subsequent ruling (never formally adopted by GATT general council) ruled that the ban fell foul of Article III of the GATT (the national treatment requirement) and Article XI (quantitative restrictions on imports). Crucially however, the ban was ruled not to be justified under Article XX(b or g) of the GATT as these exceptions could not be applied unilaterally or extra-jurisdictionally.
- **Tuna-Dolphin two** was brought in 1994 by the EC against the US’s secondary embargoes imposed on imports of tuna from countries which traded in tuna from embargoed countries. The panel ruled that the secondary embargoes were inconsistent with GATT. However, the panel ruled that Article XX exceptions could in principle be applied extra-jurisdictionally to protect global resources, but only when covered by an MEA. Dolphins were not so protected and it was ruled that the restrictions were not necessary and therefore the case was lost by the US.
- **The shrimp-turtle case** - In 1987 US legislation required domestic shrimp trawlers to use turtle-excluder devices in their nets to allow turtles to escape. Later potentially trade-restricting legislation required other shrimp-producing countries to show a regulatory programme, and incidental mortality rate, comparable to that of the USA. A case was taken by Malaysia, Thailand, Pakistan and India based on both the environmental relevance and the extra-jurisdictional nature of the restrictions. The subsequent 1998 Appellate Body appeal ruling upheld the relevance of Article XX in the case but ultimately found against the US on the basis that the measure had been implemented in a discriminatory way contrary to the chapeau of Article XX as it had *failed to engage shrimp exporting countries in serious negotiations with the objective of concluding an international agreement for the protection and conservation of sea turtles*. However, within a later compliance ruling, the Appellate Body observed that *the chapeau of Article XX does not necessarily require the conclusion of an international agreement but only the serious and good faith efforts for the conclusion of it*.⁵

⁴ Article XX(g) also requires that ‘such measures are made effective in conjunction with restrictions on domestic production or consumption’.

⁵ It should be noted that pre-1995, an Appellate Body ruling needed to be unanimously adopted by GATT general council. This would not have occurred for observations made during compliance rulings and so this

Other relevant GATT case law has been provided by rulings on beef hormones and asbestos:

- **The 1997 Beef-Hormone** case between the EU and the USA & Canada over the EU's ban on cattle products produced using growth hormones centred on interpretation of the agreement on Sanitary and Phytosanitary Measures (SPS). The Panel found the EU measures to be inconsistent with the risk assessment procedures required by the SPS agreement as the precautionary principle continues to be a subject of debate. However, a later Appellate Body ruling failed to share the Panel's inference that the EU import ban was purely a 'protectionist' measure. Whilst some (e.g. FOEI 2001) interpret this ruling to suggest an acceptance that PPMs can be a basis for trade restrictions, it might equally be interpreted as an acknowledgement of *collective preferences* as a contextual reality in measures.
- **Asbestos** – The 2000 so called asbestos case involved Canada challenging a French ban on asbestos in construction materials. The case involved Canada arguing that the asbestos it exports was a 'like product' to the substitute non-asbestos products used in construction in France, therefore deserving no less favourable treatment under the national treatment obligation of Article III:4 of GATT 1994. In assessing the 'likeness' between asbestos and the substitute products, the Appellate Body noted first that “*a determination of “likeness” under Article III:4 is, fundamentally, a determination about the nature and extent of a competitive relationship between and among products*” (WTO 2001a:99). The Appellate Body balanced the evidence for all four approaches as outlined in the report of the Working Party on Border Tax Adjustments, one of which was consumers' tastes and habits. The Appellate Body “*consider[ed] consumers' tastes and habits significant in determining “likeness”*” (WTO 2001a:123) even though the consumers of the product would be a manufacturer of building materials. This was because “*a manufacturer cannot, for instance, ignore the preferences of the ultimate consumer of its products. If the risks posed by a particular product are sufficiently great, the ultimate consumer may simply cease to buy that product*” (WTO 2001a:122). More particularly, it considered “*the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand*” (WTO 2001a:101). Taira (2005, p. 14) implies that this analysis of product likeness could extend to consumers distinguishing products based on their PPMs if consumers would distinguish the products based on labelling. There are a number of hurdles for this wider interpretation to be adopted:
 - i. The analysis of likeness in the Asbestos case relied upon a careful balancing of the evidence for all four approaches. During this assessment and unlike some other PPM cases, the asbestos in question was found to have physical differences to its alleged 'like product'.

therefore represents an indication of how GATT 1994 might be interpreted by future Appellate Body rulings rather than actual case law.

- II. These physical differences led to serious health risks which were internationally recognised.
- III. Unlike PPM cases, the impacts in the Asbestos case would be experienced in the consuming rather than just the producing country.
- IV. The presence of the French embargo itself means that the issue of labelling which might change consumers' tastes and habits has not been tested in this context.

The legal status and the ultimate outcomes of these case in terms of environmental protection are further complex issues not requiring further exploration here. However, in terms of discrimination on the basis of PPMs:

- The **Tuna-Dolphin (two)** case does demonstrate that the WTO's Appellate Body would be likely rule in future cases that Article XX can in principle relate to extra-jurisdictional impacts as long as the measure is not implemented unilaterally.
- The **Shrimp** case ruling demonstrates that the chapeau of Article XX does not necessarily require the conclusion of an international agreement (i.e. MEA) but only serious and good faith efforts for the conclusion of it.
- Some argue that the **Beef-Hormone** dispute may also provide guidance on the PPM issue as it provided implicit acceptance of PPMs as a basis for non-discriminatory measures, as long as it satisfies the scientific evidence requirements of the SPS annex of the 1994 GATT (the use of the precautionary principle was not accepted).
- The **Asbestos** case does provide for consumers' tastes and habits to contribute towards the determination of like products which are physically different. However, this case has not set a precedent for discrimination between physically like products driven solely by consumers' tastes and habits. This would need to be tested further by the Appellate Body and, based on a detailed reading of the Asbestos ruling, such attempts would likely fail as consumers' tastes and habits were not the dominant determinant in the judgement.

Therefore, in the absence of serious and good faith efforts for the conclusion of an international agreement (as shown in the Shrimp case), there is nothing in the present case law to support discrimination between physically like products based on PPMs which only impact the producer country.

5.4 The PPM case law and SIAMETHOD

These cases relate to the SIAMETHOD framework as follows:

1. **Protectionist bias argument** – Clearly the Shrimp and the Tuna cases were caused by US attempts to protect their fishing industry from imports which did not comply with environmental standards demanded by their own domestic lobby. It is less clear whether the environmental standard was primarily motivated by environmental or sectoral interests (i.e. to protect the US's technological advantage in the face of Mexico's comparative advantage). In any event, the rulings from these cases established that neither is justified on a unilateral basis.

- What is clear is that the standard guaranteed the interests of the US's domestic fleet. The original Tuna-Dolphin measure set standards based on 110% of the US's fleet's previous year's incidental kill rate, thereby guaranteeing the US fleet a market.
2. **Adjustment cost argument** – None of these cases relate to the adjustment costs argument. It seems likely that the Appellate Body would permit restrictions motivated by reasonable attempts to manage any social adjustment to a trade liberalisation.
 3. **Externality argument** – On the face of it, the Shrimp and Tuna cases relate to environmental externalities. It is however hard to conclude this as the producing country did not consider the environmental costs to outweigh the economic benefits of exporting. Such an externality argument could perhaps be maintained if a deficiency in power and representation in the exporting country meant that the interests of the communities experiencing the environmental impact were not fully considered in the decision. This would not however justify the removal of the exporting country's right to access the US's market under the present regime. The protection of another WTO member's environment can therefore only ever be achieved through agreement with the country concerned. The desire not to consume imported products which have been made using environmentally damaging PPMs might be considered to be a collective preference and therefore be justified with compensation.
 4. **Collective preferences argument** – The Beef-Hormone dispute relates (in part at least) to a collective preference of the EU. This view was suggested by the Appellate Body ruling when it considered the EU import ban not to be purely a 'protectionist' measure. However, as the precautionary principle was not *universally* accepted as part of the process of risk assessment as set out by the SPS agreement; the EU would still be subject to proportionate counter trade measures by would-be exporting countries, or obliged to pay compensation to them.
 5. **Exception argument** – All of these cases attempted to relate to the exception argument in some way. The Tuna, Shrimp and Beef-Hormone cases all failed to demonstrate that the preferences that they propose were universal. The Asbestos case differed somewhat as it centred on physically different products which led to serious health risks which impacted on the health of the importing population, and these health risks were internationally recognised. In the event, the Appellate Body agreed with the French case based on their right to set reasonable standards to protect their own population from health risks.

This analysis shows that a number of the 'contextual realities' identified in the SIAMETHOD project were relevant to, and played a role in, the various disputes over PPMs which had environmental impacts. The earlier identification of these CRs, and the adoption of appropriate measures to reflect them (e.g. compensation where collective preferences were involved), might have prevented them from developing into the protracted disputes that occurred, which have left an enduring legacy of suspicion that trade measures that purport to protect the environment are actually motivated by a desire to protect domestic industries.

In the next Section, the methods outside the formal trade institutions that are presently available to tackle the sustainable development impacts of commodity production for export are reviewed. This Section then considers how these existing methods might be applied to help promote a more sustainable commodity trading system.

6 Existing responses to sustainable development impacts from commodity production

There have been a very large number of initiatives and methods associated with commodity production for export which have been used to manage the sustainable development impacts of production. Many are initiated or supported by international institutions or governments in order to provide more stable commodity producing environments. Others are private and voluntary in nature. These have been initiated by either producer groups, in order to manage the long-term viability and profitability of their business, or consumer groups in order to mitigate some of the sustainability impacts within the scope of their perceived responsibility. Finally, there have also been a number of proposed ‘Sustainable Commodity Agreements’ intended to provide funds from the proceeds of commodity sales for the more sustainable production of commodities.

This section describes a range of these initiatives and assesses both how effective they have proved in meeting the negative impacts of commodity trade discussed in Sections 1 and 2, and as revealed by SIAs in Section 3, and how relevant they seem to be to the contextual realities underlying trade negotiations (as discussed in Section 4).

The methods discussed in this section act merely as examples or case studies for a much larger number of initiatives within the commodity sectors. When considering any mitigating or price stabilising measure, it is important to consider the wider or longer term impacts of the measure. Previous ill-conceived attempts to artificially increase or ‘prop-up’ commodity prices have provided incorrect market signals. The result has too often been greater price instability in the long-term, thereby deepening the ‘commodity trap’ for poor producers.

6.1 Government based initiatives

There have been a large number of attempts to mitigate the impacts of price fluctuations in commodity markets. UNCTAD (2004, p84) has reviewed the history of these:

- In 1943, John Maynard Keynes proposed a world currency based on a price index of the 30 most-traded commodities. The idea was to link currencies to the index in order to automatically stabilize commodity prices.
- In 1963, the International Monetary Fund began offering a Compensatory Financing Facility that later became the Compensatory and Contingency Financing Facility.
- In 1988 it introduced a Buffer Stock Financing Facility; this was discontinued in the early 2000s.
- The first Lomé Convention in 1975 gave birth to the STABEX system, which was designed to alleviate the effect of non-structural problems such as fluctuation in world commodity prices and unforeseen events such as natural disasters.
- STABEX was discontinued in 2000 with the signature of the Cotonou Agreement, and was replaced by the more narrowly focused FLEX programme.

- The Integrated Programme for Commodities set up an approach for an international policy framework that included the negotiation of a series of price-stabilizing agreements (referred to as commodity agreements) for commodities with very unstable prices.

6.1.1 Commodity agreements

Commodity agreements typically involve a pre-agreed intervention in the supply of a commodity to stabilise the price over the long term. This can either seek to involve all of the significant producers in an international agreement, or try to maintain agreement within a smaller group of producers at a national or local level.

National and sub-national collective agreements

The Sustainability Institute's (2003) report explores the challenges of establishing collective agreements with reference to two case studies.

- In the case of the Western Rock Lobster managed fishery in Australia (Sustainability Institute 2003, p26), the main objective was to maintain local lobster stocks at sustainable and economically productive levels. This was achieved through limits on both the number of licensees permitted to fish for lobsters in the area, and the number of lobster pots each licensee was permitted to use. In addition, the introduction of new technologies was tightly regulated.
- The objective of the Burley tobacco agreement in the US (Sustainability Institute 2003, p29) is the management of supply of tobacco in order to stabilise prices and avoid over capacity. This is achieved via a price support system linked to the cost of maintaining a family farm and producing the crop, combined with strict production quotas. During years of over production, excess tobacco is stored and matured, a process which actually achieves a price premium.

Both of these agreements are regulated and enforced within a government run legal framework. It is however in the producers' interests to have the agreement, so long as there are not too many producers breaking the terms of the agreement. This is especially the case as new entrants are regulated through a limit on licences under the lobster agreement and quotas linked to land under the US tobacco agreement. This means that present producers have a valuable asset to sell if they ever wish to leave the agreement and would likely protect it by supporting the continuation of the agreement. The allocation of property rights to incumbents and the restriction on technology and production may be considered acceptable interventions by local producers and populations. Such agreements can only hope to maintain prices so long as the production they support remains competitive with producers outside the jurisdiction of the agreement. This is therefore the greatest limitation of such agreements.

International commodity agreements

International commodity agreements have typically been managed in a similar way to the tobacco agreement in the US, via a 'buffer stock manager' who utilises storage capacity to keep within a pre-determined price band. Such agreements have been given

international recognition. An Integrated Programme for Commodities was adopted by the United Nations Conference on Trade and Development at its fourth and fifth session. Its main objective was to stabilise prices within commodity markets through the negotiation of international commodity agreements and it was one of the main planks of the so-called New International Economic Order of the 1970s. The exceptions to trade discipline necessary for commodity agreements are permitted under Article XX(h) of GATT treaty.

Van Groenendall (1995) explores retrospectively the particular supply intervention method used within many of the main commodity agreements, and found this to be a significant factor in its success or failure. He also assessed them in terms of their hypothetical ability to succeed in their market intervention objectives. From a strict economic perspective his analysis concluded that only the cocoa and rubber commodity agreements ever had the possibility to succeed. However, he reported that, in reality, many of these agreements were successfully in operation for many years (e.g. 25 years for the tin agreements). It is also worth noting that OPEC and De Beers have successfully intervened in the world oil and diamond markets for many years.

By the 1990s the commodity agreement movement was effectively dead. Gilbert (1995) reported that only one International Commodity Agreement (ICA), natural rubber, maintains the capability of active market intervention. The remaining agreements have either lapsed or collapsed (sugar, tin) or have been replaced by agreements whose role is primarily that of improving information (cocoa, coffee). ECA (2003) reports that buffer stock systems usually proved to be ineffective mechanisms for stabilizing commodity prices and that any modest price stabilization achieved was typically outweighed by the interest and carrying costs of the system. Gilbert (1995) reports a change in political climate and a “lack of willingness of the parties to continue playing the ICA game”. There are also reported disagreements among participants over the objectives. Van Groenendall (1995) reported that the 6th Tin Agreement collapsed because it “degenerated into an agreement for the defence of a non-competitive price floor”. He goes on to conclude that “buffer stock intervention should not go against the general tendency of the market, or more precisely, the structural development in the market” (Van Groenendall 1995, p.259).

6.1.2 Market based initiatives

Another group of approaches used to reduce producer vulnerability to price instabilities are market-based contract and insurance mechanisms. These include a variety of insurance services and a range of capital market instruments such as future and option contracts, catastrophe bonds, and weather derivatives. Insurance instruments, and forward and futures contracts have become more commonly used in developed countries as government-managed schemes such as buffer stocks have declined in use. However, small farmers in poor countries have limited access to insurance against price volatility and markets are not fully developed in many developing countries in order to provide forward and futures contracts. ECA (2003, p10) identifies the market failures involved which include a lack of enforcement as well as asymmetric information between small producers which can often lead to exploitation. Governments might therefore have a role to play in ensuring enforcement of contracts, as well as regulating financial products in

order to permit the economies of scale required to provide such services to small and vulnerable producers. One measure might be the establishment of a central institution such as a marketing board which could enforce contracts and provide transparent information to market participants.

6.1.3 Marketing boards

An institution which is complementary to both commodity agreements and the provision of forward contracts is marketing boards. Marketing boards act as the sole purchaser of crops from farmers. Through pre-announced prices to farmers, marketing boards enable forward sales to occur between overseas buyers and the marketing board. The board can act as a single entity in entering into forward contracts and is normally backed up by government guarantees. This way it avoids enforcement problems. Asymmetric information problems are also minimised because marketing boards can afford to have a centralised unit of experts that monitors price developments for commodities. Therefore, these boards can successfully hedge risks arising from commodity price fluctuations. Apart from providing this type of hedging service, marketing boards also extend credit to producers, distribute agricultural inputs such as fertiliser and pesticides, and provide market information to farmers. Marketing boards have limited ability to maintain prices in the absence of some kind of supply restricting agreement.

6.1.4 Compensation finance mechanisms

There have been two major compensatory financing programmes for terms-of-trade shocks; the European Commission's STABEX mechanism which has since been replaced by the FLEX mechanism, and the IMF's Compensatory Financing Facility (CFF). The objective of the EC's instruments was to remedy the harmful effects of export earnings instability and thus to help sustained growth of the economies of the African, Caribbean and Pacific (ACP) countries. Although STABEX constituted a useful instrument for making transfers to a number of the ACP countries until it was replaced by the Cotonou Agreement (2000), it was subject to many criticisms. ECA (2003, p.9) describes the instrument's drawbacks as follows:

1. Coverage of only four products (coffee, cocoa/copra, groundnuts, and cotton);
2. Coverage of only five countries;
3. Serious shortage of funding since the 1980s;
4. Delayed disbursement (of one to four years) to provide an opportunity to observe information on export earnings.

The EU's FLEX mechanism

The FLEX mechanism is provided from the EU's European Development Fund under the Cotonou Agreement for African, Caribbean and Pacific (ACP) countries and provides general budget support instead of sector-specific assistance, which is likely to reduce delays in disbursements of aid as experienced under STABEX. To be eligible, applicant countries must experience a 10% (2% in the case of LDCs) loss of export earnings; and a 10% worsening in public deficits. It has been in place since 2000 and its objectives are to provide support in the case of short-term fluctuations in export earnings in order to safeguard reforms and policies at risk as a result of a fall in revenue; and to remedy the

adverse effects of instability of export earnings in particular from agricultural and mining products. It was reported in the UK Parliament (2004) that, between its inception in 2000 and March 2004 only €35million was disbursed and of the 51 applications, only nine met both eligibility criteria. In March 2004, the EC proposed revisions to relax FLEX's eligibility criteria, in order to ensure that it responded more effectively to its stated objectives. In addition, the European Commission agreed to undertake an annual review of FLEX. It is expected that the resultant changes will lead to an increase in the number of successful applicants, and the overall level of FLEX assistance provided.

The IMF's Compensatory Financing Facility

The International Monetary Fund's (IMF's) Compensatory Financing Facility (CFF) was created in 1963 and provides financing to members experiencing balance of payments difficulties resulting from a temporary shortfall in export earnings or an excess in cereal import costs. There is extensive debate within the IMF itself (see IMF 1999) around the wisdom of providing finance in the absence of long-term adjustment plans. Adjustment is often considered necessary for the country to move away from and reduce its dependence on unstable or low profit commodities. IMF (1999) argues that timely financing to protect against temporary shocks is required as some members have little or no access to alternative sources of financing. It also goes on to report that, in practice, it is difficult to distinguish between temporary and permanent shocks and that commodity price shocks typically do not reverse quickly. Were this to be the case, such assistance might act to prolong low export prices, prop-up inflated cereal prices thereby further deepening the 'commodity trap' for the country's producers. There is therefore a balance to be struck between short term relief and long-term adjustment. In reality, the CFF has not appealed to low-income countries as such countries often already have borrowing ceilings in the absence of adjustments.

6.2 Voluntary consumer initiatives

What represents a fair share in the proceeds of trade, and the best mechanism used to achieve it is the subject of extensive discussion. Fair trade can be considered in terms of international arrangements and the WTO, where free trade is assumed by some to represent fair trade. Ekins (1994, p2) defines fair trade as one which "gives appropriate access to all would-be traders and enables them all to share fairly the gains from trade". The protection of certain values or interests can also be used as a condition of fair trade. The following two definitions highlight the potentially conflicting interests at stake:

- Moore (2004) reports fair trade from a consumer initiative and developing country perspective "*Fair Trade is a trading partnership, based on dialogue, transparency and respect, which seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South.*"
- Maseland (2002, p252) reports how fair trade has been used in a very different context, one that "*calls for protectionist measures by developed countries against products that have been produced in poorer countries at prices developed countries cannot compete with because of their different economic*

circumstances”. He does go on to argue that “taken to the extreme, this would mean that all trade based upon comparative advantage should be abolished. In practice, the argument is mostly used to protect domestic industries in developed economies against cheaper imports from countries with low labour costs”.

Putting to one side the principles of a hypothetical ‘fairer’ trading system, it is clear that some parts of the existing arrangements provide only a marginal existence for many small producers in developing countries, and can cause environmental impacts (see section 2). What follows is an analysis of the potential for voluntary initiatives to deal with these issues.

6.2.1 The Fairtrade Mark

The Fairtrade Mark is a consumer label which appears on products as an independently verified guarantee that ‘disadvantaged producers in the developing world are getting a better deal’⁶. To carry the Fairtrade mark, the products’ PPMs must meet international Fairtrade standards as set by the international certification body Fairtrade Labelling Organisations International (FLO). These social and environmental standards need to be met by all those in the product chain including producer groups, traders, processors, wholesalers and retailers:

The FLO has two sets of generic producer standards, one for smallholders organised in cooperatives or other organisations with a democratic participative structure, and one for workers on plantations and in factories. Employers employing workers on plantations and in factories need to pay decent wages, guarantee the right to join trade unions and provide good housing where relevant. In addition, they need to comply with minimum health, safety and environmental standards, and not use child or forced labour. The standards distinguish between minimum requirements, which producers must meet to be certified Fairtrade, and progress requirements that encourage producer organisations to continuously improve their performance. FLO (2005b) sets out the Prohibited Materials (i.e. prohibited chemicals) list and FLO (2005a) sets out how the progress requirements can be achieved.

There are a number of generic criteria which help define price premiums that traders need to pay. Traders should:

1. Pay a price to producers that covers the costs of sustainable production and living and allows for investments in development;
2. Pay in advance, when producers ask for it;
3. Sign contracts that allow for long-term planning and sustainable production practices.

These criteria have led to a large number of products and sub-products being provided a specific price guarantee and price premium as defined by the FLO. The average product price premium as set by FLO was 10.2% of the guaranteed price as set (unadjusted for

⁶ www.fairtrade.org.uk/about_what_is_fairtrade.htm

traded volumes). The European Parliament reported that overall sales of fair trade verified goods totalled €660 million in 2005 and that 20% of ground coffee in the United Kingdom and about 2% of all coffee sales in Austria, Denmark, Ireland, Belgium and Germany carry the Fairtrade label (EP 2006b, p3). They also reported that in financial terms, the price premium provided over €23 million of benefits to coffee farmers, the empowerment of producers through capacity building and technical assistance, income security, direct trade and credit provision, improved levels of education, the preservation of indigenous cultures and potentially the break-up of monopolies on prices and transportation (summarised from EP 2006b, p6).

There are however a number of concerns raised by the introduction and growth of the Fairtrade mark for both producers and consumers. The BBC's Money programme shown on BBC2 on the 10th of March 2006 (Webb 2006) raised concern about the premium pricing of Fairtrade products in some supermarkets. In a subsequent press release in response to the issues raised by the programme, the Fairtrade Foundation argued that "the costs of a Fairtrade product are more than the extra price paid to producers...while the benefits of Fairtrade to producers are also far more than just this price difference" ...buying Fairtrade can mean "buying from remote groups of farmers with high production costs and incurring additional costs in shipping, processing and distribution. Many Fairtrade products are still sold at much lower volumes than leading brands and so the costs of distribution and marketing are relatively higher as a proportion of the selling price – although these are coming down as the market grows" (Bretman 2006).

As reported, it is difficult to calculate the allocation of the price premium paid by consumers. Clearly retailers will set prices to as to maximise their profits irrespective of the Fair Trade price premium. It was suggested in the BBC programme that some consumers misunderstood this and will accept very high prices on the understanding that all of the additional money is going to support the producers only. Therefore, the high consumer surplus for basic food products and the limited availability of fairtrade products may provide retailers with the opportunity to make excess profits on fairtrade products. It is however quite possible that competition in the market and consumer awareness will lead to a reduction in rents for the retailers in time.

There is a much more intrinsic concern which needs to be considered with any system which guarantees prices. As with any market, low commodity prices act as signal to producers that there is surplus supply. In an ideal world, the more resourceful producers would leave the market when the price drops over a number of years in order to produce more profitable alternative crops. This is often not the case with agricultural commodity markets as, for a number of reasons, farmers are unable to diversify and so all producers are locked into long term declines in prices. The ultimate outcome will be decreasing revenues until it is not worth producers growing, or in some cases even harvesting their crops. Only at this point will the price 'bottom out' at a price which will be at or even below the cost of production for some producers.

Any system which continues to pay farmers at a higher than market price will provide incentives for continued overproduction, as in the case with Europe's Common

Agricultural Policy (CAP). Moreover, higher consumer prices will naturally lead to some level of demand reduction, and therefore further surplus production. In the case of Fairtrade products, price premiums might lead to excess production on certified farms which cannot be sold with a Fairtrade Mark as the system's price guarantee does not permit a price response which would permit greater sales of Fairtrade products. ECF & CAOBISCO (2006) highlights this divergence in price: "the Fair Trade minimum price for Arabica coffee at the moment is USD 1.26 per pound. A modern and efficient Brazilian farm can produce profitably at USD 0.60 per pound".

The result is often that certified production needs to be sold onto the uncertified market in competition with such low cost producers, leading to a concentration of price instabilities in the uncertified market. This has already been observed. Moore (2004, p.78) reported that "in 1999 only 50% of the worldwide production of Fair Trade coffee was sold through Fair Trade channels, the remaining 50% being sold on the regular market". EFF & CAOBISCO (2006, p.3) reported that the Fair Trade market only absorbs 28 thousand tonnes of the 138 thousand tonnes certified coffee grown annually (i.e. an 80% overspill). The only alternative is to restrict certifications or buy-up excess supply. Such dilemmas might become more pressing if certification continues to outstrip demand.

This dilemma is acknowledged within the ethical consumer literature. Mel Young, editor in chief of the New Consumer⁷ accepts the "potential to result in an increased glut in the market as well as single-crop dependency" (Young 2005, p.3). However, Young goes on to justify the system due to the "lack of current alternatives when the trading cards are stacked against them, and the absence of government safety nets for poor producers" (Young 2005, p.3). She finishes by saying that "those involved in the Fairtrade industry are constantly looking at ways to improve and grow the system — with the ultimate aim of creating a sustainable trading system with poverty eliminated" (Young 2005, p.3).

Maseland (2002) tested⁸ the effectiveness of fairtrade initiatives to achieve their own objectives. This was done by comparing fairtrade against the two extremes of 'free trade' and 'protectionism' intended to protect the development needs of producer countries. The objective⁹ of fairtrade was taken from the fair trade movement itself that: "trade is fair when it comes to the advantage of the least well off in society" (Maseland 2002, p268). The paper finds that although there are cases in which fairtrade is the better option, fair trade sometimes has effects that actually consist of deterioration in terms of fairness" (Maseland 2002, p269). Specifically, "Fairtrade was found to be always superior to protectionism, but its superiority with respect to free trade depended on the price elasticity of demand of the product it targets at" (Maseland 2002, p269). The paper's overall conclusion was that "it is by no means clear that fairtrade initiatives are always fairer than other options".

⁷ <http://www.newconsumer.org/>

⁸ This was done using a comparative cost based Heckscher-Ohlin model of trade and a static version of a standard new economic geography model.

⁹ The other notion of fairness behind the fair trade movement – an absolute prohibition of certain types of behaviour in production – was acknowledged but not tested within the paper.

6.2.2 The use and regulation of 'fair trade' labelling

The use of labels to inform consumers about the characteristics of products is discussed widely within trade fora. A contentious issue in the eco-labelling debate has been the use of criteria linked to PPMs where no trace is left in the product which is imported. The WTO (2004, p.17) advises that "these schemes need to be non-discriminatory and not result in unnecessary barriers or disguised restrictions on international trade". In 2000, the Technical Barriers to Trade (TBT) Committee agreed on a set of guiding principles for the development of standards, including environmental labelling standards. The principles are: *transparency, openness, impartiality and consensus, effectiveness and relevance, coherence*, and, wherever possible, *responsiveness to the needs and interests of developing countries* (WTO 2004, p.19). The TBT Agreement urges countries to recognize the equivalence of the norms set by their trading partners, even when they differ from their own, provided they achieve the same final objective (WTO 2004, p18). EP (2006a, par. T) believes that "there are WTO-compatible means by which governments can support Fair Trade initiatives, provided that they are non-discriminatory between WTO member states". WTO member governments could support the Fairtrade label, but not discriminatory measures such as those demonstrated in the Banana case (i.e. where the measure was neither voluntary to consumers nor non-discriminatory to WTO members countries).

In April 2006, The European Parliament proposed a draft motion intended to provide a common framework of criteria in order to prevent the abuse (see EP 2006a&b). The motion is focused primarily on the Fair Trade rather than wider concepts of fair trade (note the use of capitals means that there is some ambiguity as to whether the Fairtrade mark is being referred to). EP 2006a: identifies the main international Fair Trade associations (FLO, IFAT and EFTA) directly, largely reproduces the FLO's criteria (EP 2006a, par.2), and calls on European Institutions to use Fair Trade products in their internal services (EP 2006, par.12). In addition to this, the motion calls on the Commission to support a number of wider 'Fair Trade' and development objectives: implement article 23 (g) and 63 of the Cotonou Agreement, provide "Aid for Fair Trade" (again note the use of capitals) and support the African Union on the issue of commodity prices within WTO negotiations.

The document has generated a certain amount of both controversial debate and confusion. The ECF & CAOBISCO (2006) main criticism was that it only referred to the Fair Trade label, and therefore excluded a number of initiatives which could successfully provide for 'ethical trade/sustainability'. In addition to this, ECF & CAOBISCO (2006) argued that the proposed motion actually generates confusion by using the capitalisation of 'Fair Trade' throughout the document including when discussing the concept of fair trade in the context of the Cotonou Agreement. The Cotonou Agreement refers to 'fair trade' in small letters, and 'Fair Trade' increasingly operates as a regular brand (ECF & CAOBISCO 2006, para. E). It may well be successfully argued that enshrining the property rights of a single initiative into a policy framework is a necessary and pragmatic response to a threat from less rigorous initiatives. However, the proposed motion fails to be explicit on this objective and some ambiguity even remains as to whether this is what was really being proposed in the motion.

6.2.3 Organic certified production

Not all organic verification schemes follow the exact standards. There is however a growing consensus on and convergence of standards. The International Federation of Organic Agricultural Movements (IFOAM) represents the worldwide body of organic agriculture and provides a platform for global exchange and co-operation but, as with the UK Soil Association, standards can be extended beyond this. In 1991, the EU produced Council Regulation 2092/91 (see EU 2004) which regulates the sale and labelling of organic produce within the EU. Regulation 2092/91 sets out the inputs and practices which may be used in organic farming and growing, and the inspection system which must be put in place to ensure this. This Regulation also applies to processing, processing aids and ingredients in organic foods. In the UK, Defra implemented Regulation 2092/91 under the Organic Products Regulations 2004, through the 'Compendium of UK Organic Standards' (see Defra 2005). Very broadly, in order to be verified as an organic product, at least 95% of the inputs must not have been:

- Produced using a specified list of substances (i.e. Annex VI in Defra 2005).
- Subjected to ionising radiation.
- Produced or derived from any Genetically Modified Organisms (GMOs).

There are also a number of animal welfare standards which need to be met, which the Soil Association in the UK claims to supersede in their standards. The Soil Association standards also apply to more than food as they also have standards for: shops, restaurants, bars and cafés, health and beauty products, clothing and textiles, products such as composts as well as timber and wood products. The Soil Association are also in the process of piloting a dual Fairtrade and organic scheme in association with the FLO.

However, the objectives of existing organic labelling schemes are somewhat narrower than fair trade initiatives. Organic initiatives rarely explicitly set out to increase the profits for growers, although there may be some rent available to those growers who manage to be certified early on. Von Moltke (1998) explores the effect of initiatives which set out to improve the environmental performance of commodity production and the effect this has on prices, the allocation of rents and the impact on non-participating producers. The outcome from many previous such initiatives was reported to be an initial price premium paid by consumers, which is typically captured by market actors further up the product chain. In the event of the initiative being successful and being adopted as a new industry standard, non-participating producers will need to change to the new production practices without either a price premium, or in some cases, the opportunity to pass-through any change-over costs.

Potentially at least, initial price premiums could be better captured by organic growers by the forming of marketing boards which promote a better balance of market information between growers and buyers (see Sustainability Institute 2003, p39). In the long-term however, von Moltke (1998) makes clear that the only price premium available to organic growers should be the additional operating costs of growing organic produce. It can therefore be concluded that consumer-led environmental initiatives such as organic labelling should represent a relatively efficient way for consumers to mitigate some of the

environmental impacts associated with their commodity consumption, but is unlikely to offer much poverty reduction in the long-term. Organic production therefore only limits the environmental impacts and fails to tackle the underlying drivers behind the 'commodity trap' (see section 1.3). Perhaps one possible indirect poverty reducing outcome of the increasing demand for organic produce might be the comparative advantage developing countries might have in a more labour intensive system of production. Sustainability Institute (2003, p39) reports that China set aside 250,000 acres of unpolluted land in 2000 exclusively for production of organic food intended for the Japanese market.

6.2.4 The Marine Stewardship Council (MSC) certified sustainable fisheries

The MSC initiative is an independent and voluntary certification programme intended to enhance the responsible management of seafood resources and ensure the sustainability of global fish stocks and the health of the marine ecosystem. Though operating independently since 1999, the MSC was first established by Unilever who is the world's largest buyer of seafood, and WWF in 1997. The initiative certifies fish which have been caught from sustainable fisheries, and therefore relies upon all those involved in the product chain to meet specified 'Chain of Custody Traceability Standards'.

MSC (2002) sets out the Principles and Criteria for sustainable fishing for the purposes of certification as fishing that is conducted in such as way that it:

1. Can be continued indefinitely at a reasonable level;
2. Maintains and seeks to maximise ecological health and abundance,
3. Maintains the diversity, structure and function of the ecosystem on which it depends as well as the quality of its habitat, minimising the adverse effects that it causes;
4. Is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations;
5. Maintains present and future economic and social options and benefits;
6. Is conducted in a socially and economically fair and responsible manner.

The Principles and Criteria are intended to represent a thorough, hierarchical definition of essential elements that should be reflected in well-managed and sustainable fisheries and are fundamentally rooted in FAO's Code of Conduct for Responsible Fisheries (MSC 2005). MSC (2002) sets out detailed criteria which are used to evaluate each fishery seeking certification. These criteria are grouped around the following three principles:

- **Principle 1:** A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.
- **Principle 2:** Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and

associated dependent and ecologically related species) on which the fishery depends.

- **Principle 3:** The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

The initiative might be considered as a framework for local sustainable fishing initiatives to apply in order to achieve recognition of their efforts.

There have been a number of reviews and critiques of the MSC initiative including from Greenpeace as part of their submission of evidence to the Royal Commission on Environmental Pollution (Greenpeace 2004). Whilst Greenpeace (2004) “believes that in principle market-based incentives like eco-labelling fish products can play a role in achieving ecologically sustainable fisheries and that the MSC has the potential to deliver a credible certification scheme to this end”, it does identify a number of limitations relating to MSC (2002) which are summarised below. Greenpeace believes that:

1. Taking from a depleted stock can never be consistent with the precautionary approach. Therefore, it is believed the scheme provides an additional market incentive to take from already depleted fisheries.
2. The MSC operational criteria are insufficiently rigorous since they currently allow fisheries to be certified provided that they only “minimise” adverse food web changes or ecosystem shifts.
3. Certification is based only on promises of improvement which do not need to be accounted for five years. Therefore, fisheries should be certified based on the sustainability of the fishery (rather than simply the presence of management tools) and performance indicators need to be universally applied across all fisheries
4. The MSC fails to make explicit reference to the legal and customary rights and long-term interests of all people dependent on fishing for food and livelihood.
5. The MSC should support and participate in the development of a global network of no-take marine protected areas.

In 2005, the MSC themselves provided a summary of the various reviews and criticisms received from their stakeholders as part of their two-year ‘reform agenda’ (MSC 2005). In addition to Greenpeace’s criticisms, MSC (2005) reports the following limitations of the initiative:

1. The MSC needs to review scientific interpretations of sustainability and the precautionary approach in relation to the operational applications of the MSC standard.
2. Some believe that there are certain critical indicators of performance that have special significance and are essential to a successful certified fishery.
3. The MSC needs to improve their enforcement and compliance actions.

Several of these criticisms and limitations relate to the operation of the initiative and may well be resolved in time. However, many of these criticisms and limitations relate to the implementation of the precautionary principle in the context of sustainability and are therefore open to greater variation in interpretations. Greenpeace's absolute rejection of any extraction from depleted stocks irrespective of the assurances provided of the management plan, and a rejection of the minimisation of impacts as 'insufficiently rigorous' is a particularly cautious interpretation of precaution in this context. Such levels of precaution are usually reserved for the protection of global life supporting resources and are simply not available to such voluntary initiatives.

Long-term non-production is not a viable proposition within an open market context. Therefore, the MSC initiative relies heavily on assessment and verification to ensure that proposed management plans are sufficiently robust and are implemented correctly. It is possible to imagine a scenario where a fishery is sufficiently depleted, and there is sufficient investment in the fishing fleet that it would not be in the interest of the fishermen to seek certification as it would likely require them to forgo too much production over an excessive length of time. It is this balance between the level of precaution and the need to make the scheme as inclusive as possible that any voluntary initiative needs to strike.

Many of the same kinds of issues arise with the other major voluntary certification scheme, the Forestry Stewardship Council (FSC). For reasons of space this is not discussed in detail here.

6.3 Voluntary producer initiatives

Producers may have the incentive to improve their production practices in order to segment a commodity market and therefore achieve a rent through the use of product labelling and their brand. Such labelling is in no way contrary to WTO rules but is often met with scepticism by increasingly sophisticated consumers unless externally verified. It may well also make business sense for producers to engage in sustainable production techniques, irrespective of whether a price premium is available, as the long-term profitability of the company may be under threat if they endanger long-term levels of production or the communities on which they rely. The potential of a number of such voluntary initiatives to avoid sustainable development impacts from commodity production is now explored.

6.3.1 Corporate Social Responsibility (CSR)

For the business sector to contribute to sustainable development, it will need to create increasing economic value while both using natural resources and the environment sustainably and making a broader contribution to society's social aims and objectives. A successful corporation will naturally employ people, generate profits and therefore contribute to the economic success of the countries in which it operates. Depending on its country of operation, corporations will often be closely regulated to ensure that the environmental impacts are limited. Some would argue that this should remain the limit of the corporate role in any society (Henderson 2001). However, increasing numbers of

business people now argue that the role of business should not be so restricted¹⁰. In recent decades private corporations have grown in size and are increasingly undertaking operations formerly the reserve of state organisations and imperial powers. Some of the largest corporations are now sufficiently large to justify attempting to reserve the natural resource stocks on which their business depends upon (e.g. fish stocks). In addition to this, corporations are considering what role their customers and stakeholders perceive them to play in all components of sustainable development.

It could be argued that a business perception of wider social responsibility has always been the case illustrated for example by the long record of businesses in respect of charitable giving in many countries. The exact form such donations took varied depending on the cultural context where the business operated and the scale of the business; an example might be a small business playing a prominent social role within its local community. The mechanism for generating value to the individual firm is not always immediately apparent, even to the donor. However, some of the charitable donations made by larger businesses to concerns not related to their operations provide positive public relations value among their stakeholders. However, more recent attempts by businesses to promote the interest of their operational stakeholders (such as the communities in which their workforce is recruited) appear to be additionally improving the companies' operating environment and their 'social licence to operate' (MMSD 2002, p.xiv).

This expansion of the traditional concern of business means there is great need for tools to enable businesses to monitor, manage and report their performance. Most large Trans National Corporations (TNCs) now have in place sophisticated systems to manage their environmental obligations to host governments, as well as manage stakeholder relationships. Such relationships include both those internal to their business (customers, employees, shareholders, suppliers) and those external to it (competitors, local communities, government, civil society).

Many TNCs are also seeking to measure and report on their environmental and social (as well as their economic) performance to a range of stakeholders. Reviews of these reports have called for more common procedures and indicators to enable the outcomes across these very different dimensions to be compared more easily (Elkington et al. 1999, White & Zinkl 1999). There have been proposals for both sector-specific indicators (see for example Berkhout *et al* 2001) and general reporting frameworks (see for example the Guidelines of the Global Reporting Initiative, GRI 2002). Accounting approaches in these areas have also been developed and, in some cases, related to corporate financial accounts (see, among others, Bennett & James 1999, 2000, Dorfman et al. 1993, Gray 1990, 1997, Howes 2000, Zadek et al. 1997). At the same time, the social dimension of sustainable development has been treated in terms of its relationships with both internal and external stakeholders (see Steg, Vlek et al. 2001 for discussion of this).

¹⁰ See for example the speech by John Browne, the Chairman of BP, Botwinick Lecture at Columbia Business School, 19 November 2004

6.3.2 Sectoral SD initiatives – Minerals and Mining

MMSD (2002) reports on how the minerals and mining sector globally has responded to the challenge of sustainable development. In 2000, the mining and minerals industry faced some of the most difficult challenges of any industrial sector and was distrusted by many of the people it dealt with day to day (MMSD 2002, p.xiv). Against this background, and with the World Summit for Sustainable Development planned for 2002 in mind, nine of the world's largest mining companies decided to initiate a project to examine the role of the minerals sector in contributing to sustainable development. The World Business Council for Sustainable Development worked with the sector to achieve four broad tasks:

1. to assess the global mining and minerals sector in terms of the transition to sustainable development,
2. to identify how the services provided through the minerals supply chain can be delivered in ways that support sustainable development,
3. to propose key elements for improving the minerals system, and
4. to build platforms of analysis and engagement for ongoing communication and networking among all stakeholders in the sector.

MMSD focused stakeholders' concerns into nine key challenges facing the sector. These represented the most pressing issues identified through the various consultative mechanisms over two years:

1. **Viability of the Minerals Industry** - A switch from the cost culture to the value culture was identified as important to the achievement of sustainable development (Issues and challenges: *business case* and *Health & safety*)
2. **The Control, Use, and Management of Land** - The most appropriate use of land seeks to balance competing interests between national and local levels (Issues and challenges: *indigenous peoples, resettlement* and *protected areas*).
3. **Economic Development** – There is a need to find better ways to capture and manage mineral wealth and to ensure that it is invested for lasting benefits in support of national, regional, and local development (Issues and challenges: *corruption, human rights* and *conflict*).
4. **Local Communities** - A new relationship is beginning to emerge, based on recognition of the rights of communities and the need for community participation in decision-making (Issues and challenges: *social licence to operate, local capacity, share in revenues, retained local value, health services* and *multi-stakeholder forums*).
5. **The environment** - Critical natural capital needs to be maintained, ecosystems enhanced where possible, and minerals wealth needs to contribute to net environmental continuity (Issues and challenges: *large volumes of waste, mine closure planning, environmental legacy, environmental management systems* and *biodiversity*).
6. **Integrated Approach** – Both the production and the use of minerals need to be considered within a comprehensive sustainable development

strategy. (Issues and challenges: *resource efficiency, impacts in use phase and recycling*).

7. **Access to Information** - Sustainable development requires increased openness and greater transparency in information production and dissemination (Issues and challenges: *rights to resources, independent accountability, verification and the digital divide*).
8. **Small-Scale Mining** – i.e. people working with simple tools and equipment, usually in the informal sector, outside the legal and regulatory framework and with considerable impact on the environment (Issues and challenges: *rural livelihoods, in-migration, affordable management methods and reasons to ban small mining*).
9. **Sector Governance** - Achieving effective governance is a major challenge facing the sector (Issues and challenges: *capacity, power balance, political will, representation, abuse of human rights, conflict between actors and direct foreign investment*).

MMSD (2002, xxiv) sets out a generic agenda for change based around the following vision of the sector:

- **Structure** - The minerals industry will be integrated throughout the value chain, providing mineral services rather than primary products.
- **Voluntary initiatives** - Legal and regulatory frameworks will be complemented by voluntary initiatives with mine-site or company-wide verification.
- **Governance** - Governments will have sufficient capability and willingness to impose sanctions on those who will not meet these standards.
- **Access to information** - There will be fair and accepted mechanisms to facilitate access to information, public participation in decision-making processes, and access to justice to resolve disputes.
- **Capacity of governments** - All actors will have sufficient capacity to meet higher standards, to define and enforce constructive interventions, and to monitor performance and facilitate sustainable development objectives.
- **Environmental costs** - Costs will be much better internalised, and there will be a concerted effort to address the legacies of abandoned mines.

The nine large mining companies behind MMSD may have had several reasons for initiating this process. The report itself makes clear that the sector was suffering from mistrust among their own stakeholders and that collaborative concerted effort was required to rectify this situation and maintain their ‘social licence to operate’. Whilst the interests of those engaged in the process do coincide with a very wide set of stakeholders’ interests, the vision as set out in MMSD (2002) does not consider the interests of everyone. For example, the Austrian Government highlighted that “the sovereign right of developing countries to attract foreign investment for, and create wealth from, their natural resources does not appear to be recognised” (DMPR 2002, p.9). This issue relates to the debate within trade fora on the imposition of PPM standards by importing countries. In addition, although the process included others in the sector, the interests of small and illegitimate mining operations potentially conflicted with it. Indeed, if it is

accepted that these largest companies are leaders in terms of the management of social and environmental issues, it would be in their interests to promote regulations and norms which enshrine such practices, thereby providing a competitive advantage and eliminating the poorest performers (i.e. the small and artisan operations).

6.3.3 The financial sector's "Equator Principles"

The "Equator Principles" are the financial industry's benchmark for determining, assessing and managing social and environmental risk in project financing. The 40 financial institutions (the Equator Principles Financial Institutions, EPFIs) around the world that currently apply the Principles have agreed not to provide loans to projects located in non-OECD¹¹ countries of total project capital costs greater than USD 10 million unless the borrower complies with the first nine of the ten Equator Principles. The Principles are described in Table 6.1 below.

Table 6.1 – Description of the Equator Principles

<i>Principle 1: Review and Categorisation</i>
As part of their process of internal review, EPFIs will categorise projects according to the following: Category A – Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented; Category B – Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and Category C – Projects with minimal or no social or environmental impacts.
<i>Principle 2: Social and Environmental Assessment</i>
Where a project is assessed as being in either category A or B, the borrower will be required to have conducted a Social and Environmental Assessment process to the EPFI's satisfaction using the Equator Principles illustrative list of issues (18 issues listed in EPFI 2006 p.8).
<i>Principle 3: Applicable Social and Environmental Standards</i>
The assessment should utilise the Industry-Specific Environmental, Health and Safety Guidelines (see EPFI 2006, p.9) and the following list of required assessments from the International Finance Corporation (IFC):
<ul style="list-style-type: none"> i. Social & Environmental Assessment & Management System ii. Labour and Working Conditions iii. Pollution Prevention and Abatement iv. Community Health, Safety and Security v. Land Acquisition and Involuntary Resettlement vi. Biodiversity Conservation and Sustainable Natural Resource Management vii. Indigenous Peoples viii. Cultural Heritage
<i>Principle 4: Action Plan and Management System</i>
For all Category A and Category B projects, it is required that the borrower has prepared an Action Plan and establishes a Social and Environmental Management System. The Action Plan will describe and prioritise the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the Assessment.
<i>Principle 5: Consultation and Disclosure</i>

¹¹ As well as OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database

It is required that, for all Category A and, as appropriate, Category B projects, the government, borrower or third party expert has consulted with project affected communities in a structured and culturally appropriate manner. For projects with significant adverse impacts on affected communities, the process will ensure their free, prior and informed consultation and facilitate their informed participation as a means to establish, to the satisfaction of the EPFI, whether a project has adequately incorporated affected communities' concerns. The Assessment document and Action Plan should be disclosed in advance of this process.

Principle 6: Grievance Mechanism

For all Category A and, as appropriate, Category B projects, to ensure that consultation, disclosure and community engagement continues throughout construction and operation of the project, the borrower will establish a grievance mechanism as part of the management system.

Principle 7: Independent Review

For all Category A projects and, as appropriate, for Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Assessment, Action Plan and consultation process documentation in order to assist EPFI's due diligence, and assess Equator Principles compliance.

Principle 8: Covenants

For Category A and B projects, the borrower will covenant in financing documentation:

- a) to comply with all relevant host country social and environmental laws, regulations and permits in all material respects;
- b) to comply with the Action Plan (where applicable) during the construction and operation of the project in all material respects;
- c) to provide periodic reports (not less than annually), that document compliance with the Action Plan and relevant local, state and host country social and environmental laws, regulations and permits; and
- d) to decommission the facilities, where applicable and appropriate, in accordance with an agreed decommissioning plan.

Principle 9: Independent Monitoring and Reporting

To ensure ongoing monitoring and reporting over the life of the loan, EPFIs will, for all Category A projects, and as appropriate, for Category B projects, require the appointment or employment of an independent environmental and/or social expert to verify its monitoring information which would be shared with EPFIs.

Principle 10: EPFI Reporting [by the bank]

Each EPFI adopting the Equator Principles commits to report publicly at least annually about its Equator Principles implementation processes and experience, taking into account appropriate confidentiality considerations.

Source: EPFI 2006

High-Income OECD Countries'¹² existing national assessment requirements are considered by the EPFI to be an acceptable substitute. These Projects are not therefore required to follow Principles 3-6 but are required to follow Principles 1, 2 & 7-9. The Equator Principles provides lenders with a certain level of risk management against poorly managed projects which fail to comply with regulations and good practice or gain community consent. Such projects are less likely to fail or generate bad publicity for the lending organisation. However, the Principles only provide a framework for actions which are likely to be limited to the interests of the lender. In common with many producer-led initiatives, the Equator Principles fail fully to consider the wider sustainability challenges faced by the sector or community. In the case of the production

¹² Excluding those OECD countries not designated as High-Income, as defined by the World Bank Development Indicators Database

and trade in commodities, the impact on the market price and the wider challenge of development.

6.3.4 Global Compact

The Global Compact sets out to bring companies together with UN agencies, labour and civil society to support ten universal environmental and social principles in the areas of human rights, labour, the environment and anti-corruption. The Global Compact is a purely voluntary initiative, which asks companies to embrace, support and enact, within their sphere of influence, ten principles. These ten principles are derived from four different international agreements as shown in Table 6.2.

Table 6.2 - The Global Compact's ten principles

The Universal Declaration of Human Rights
<i>Principle 1:</i> Businesses should support and respect the protection of internationally proclaimed human rights.
<i>Principle 2:</i> Make sure that they are not complicit in human rights abuses.
The International Labour Organization's Declaration on Fundamental Principles and Rights at Work
<i>Principle 3:</i> Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
<i>Principle 4:</i> The elimination of all forms of forced and compulsory labour.
<i>Principle 5:</i> The effective abolition of child labour.
<i>Principle 6:</i> The elimination of discrimination in respect of employment and occupation
The Rio Declaration on Environment and Development
<i>Principle 7:</i> Businesses should support a precautionary approach to environmental challenges;
<i>Principle 8:</i> Undertake initiatives to promote greater environmental responsibility
<i>Principle 9:</i> Encourage the development and diffusion of environmentally friendly technologies.
The United Nations Convention Against Corruption
<i>Principle 10:</i> Businesses should work against all forms of corruption, including extortion and bribery.

Source: <http://www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html>

“The Global Compact welcomes any participant that pledges to work towards implementation of the Global Compact principles through learning, dialogue, projects, process improvements or other such measures” (UNGC 2006, p.2). Active participants are listed on the Global Compact’s website. It is not however a compliance-based initiative and it does not permit its logo to be used in relation to any product or activities intended to solicit business (UNGC 2006, p.2). Since 2003, participants are required to communicate with their stakeholders on an annual basis about progress in implementing the Global Compact principles and make this available on the Global Compact website. Failure to do so, or failure to respond to a complaint of “systematic or egregious abuse of the GC’s overall aims and principles” (UNGC 2006, p2) results in the organisation being listed as a non-communicating company on the Global Compact’s website.

Ruggie (2002, p32) explores the mechanism for change behind the Compact whereby consensus-based definitions of what constitutes good practices is reached:

“Its core is a learning forum. Companies submit case studies of what they have done to translate their commitment to the GC principles into concrete corporate practices. This occasions a dialogue among GC participants from all sectors: the UN, business, labour and civil society organisations. The aim of this dialogue is to reach broader, consensus-based definitions of what constitutes good practices than any of the parties could achieve alone. Those definitions, together with illustrative case studies, are then publicised in an online information bank, which will become a standard reference source on corporate social responsibility.”

Ruggie (2002, p.7) discusses both pragmatic and principled reasons for adopting a learning model rather than regulation to induce corporate change. Pragmatically he argued that there would not have been the international or business consensus for a code, or the resources available for monitoring and verifying such a code. He also identifies three principled reasons for adopting a learning-based approach in 2002:

1. Many of the Global Compact’s principles cannot be defined at this time with the precision required for a viable code of conduct.
2. The extraordinary pace of change in corporate strategies, structures and production processes makes it exceedingly difficult to specify *ex ante* the full range of performance criteria and desired practices that a code should include.
3. Strategically, the accumulation of experience itself is likely to lead gradually to a desire for greater codification by industry leaders wanting to protect themselves against any possible competitive disadvantage.

The Global Compact has been successful in signing up both large and small companies with the Global Compact’s website reporting that 105 of the world's 500 largest companies by market capitalization are Global Compact participants¹³. However, Williams (2004, p.755 & 757) reports that “very few of the major U.S. companies have joined” and that “only six of the major U.S. companies joined as of June 2004”. He goes on to argue that U.S. company reluctance to join the Compact centres on a perception that a lack of accountability would lead to its legitimacy being questioned in the U.S. Examples include the lack of a code and verification already discussed but Williams (2002, p.758) reports that expectations in the area of human rights are often unclear and therefore, fearing the litigious environment of the U.S., companies have been reluctant to sign the Compact. The situation is different for European companies. Georg Kell, the Executive Director of the UN Global Compact argued that European companies have not been deterred from joining either because their government regulatory environment has already mandated the substance of the Global Compact, or because they operate in a less litigious and adversarial context (reported in Williams 2004, p758).

6.4 Comparison of responses

The various responses to the sustainability impacts of commodity production vary greatly in terms of their priorities and therefore approach. Key to this will be who *initiated* the response and the objectives they had in mind. All of these responses have different

http://www.unglobalcompact.org/CommunicatingProgress/global_105_impact_and_progress.html

strengths and limitations and will be *vulnerable* to different pressures over time. Table 6.3 summarises these strengths, limitations and vulnerabilities and provides an assessment of their status and compliance with GATT trade disciplines.

Table 6.3 - Strengths, limitations and vulnerabilities of existing responses

	Initiator	Key strengths	Key limitations	Vulnerabilities	Status	GATT compliant?
Regulated initiatives						
<i>Commodity agreements</i>	International consensus	Price stabilisation	Limited environmental protection	Unsustainable price aspirations	Largely extinct	Yes, Article XX (h)
<i>Market based initiatives</i>	Private	Provides resilience	Limited availability to small producers	Immature markets and lack of enforcement of contracts	Limited use in developing countries	Yes
<i>Marketing boards</i>	Producer governments	Tackles information market failures	Limited control over prices	Costs and politicisation of production	Declining	Yes
<i>Compensation finance</i>	IMF & EU	Tackles short term balance of payment difficulties	Fails to tackle causes of imbalances	Costs and politicisation of production	Declining	Yes
Voluntary consumer initiatives						
<i>Fairtrade</i>	Consumer groups	Protection of vulnerable workers	Free riding and high cost	Oversupply and rent capture by retailers	Small but growing	Only when voluntary to consumers
<i>Organic</i>	Consumers	Environmental protection	Fails to fully tackle "commodity trap"	No price guarantees		
<i>MSC</i>	Unilever & WWF	Protection of fisheries	Might fail to provide incentives when fishery is severely depleted		Expanding	
Voluntary producer initiatives						
<i>CSR</i>	Companies	Promotes valuable relationships / "License to operate"	Limited by companies share of influence	Competition from less responsible short term thinking companies/organisations	Expanding	Yes
<i>Global Compact</i>	UN		Reluctance of US companies			
<i>Sector initiatives (MMSD)</i>	Sector		Dominance of large company interests			
<i>Equator Principles</i>	Banks	Significant coverage	No guarantee of sustainable practices		New principles July 2006	

6.5 Assessment of existing methods

Section 1 of this report introduced the so called 'commodity trap', and therefore set out the underlying challenge faced by SIA practitioners when proposing measures to mitigate the impacts of commodity production. Section 6 explored some of the responses (i.e. methods) which have previously been adopted to tackle the 'commodity trap', or failing that, to mitigate the sustainability impacts of commodity production. Section 4 provides the regulatory and political context which the methods need to comply with.

All of these can now be combined to provide an assessment of how effectively the various initiatives and methods might contribute towards a more sustainable commodity producing system. It is therefore proposed (based on the review of the various literatures) that sustainable commodity production would be achieved if the initiative or method managed to:

1. **Stabilise prices** – i.e. does the method provide a stabilisation of prices around a realistic trend?
2. **Promote development** – i.e. does the method contribute towards achieving the Millennium Development Goals?
3. **Tackle the ‘commodity trap’** – i.e. does the method tackle the capacity growth dynamic underlying the ‘commodity trap’?
4. **Protect the environment** – i.e. does the method reduce the environmental intensity of production in a way that production can be sustained?
5. **Sustainably use resources** – i.e. does the method either:
 - a. promote the sustainable management of renewable resources? OR
 - b. ensure that sufficient profits from the extraction of non-renewable resources are invested in the development of renewable alternatives ¹⁴?

The various initiatives and methods as discussed in this Section are now assessed against these five objectives.

Figure 6.1 – Assessment of methods against the objectives of a sustainable commodity system

	Social objectives		Both	Environmental objectives		Long term viable?
	Stabilise prices?	Promote development?	Tackle the Commodity trap?	Protect the environment?	Sustainably use resources?	
Regulated initiatives						
<i>Commodity agreements</i>						?
<i>Market based initiatives</i>						
<i>Marketing boards</i>			?			
<i>Compensation finance</i>	-	?	-			
Voluntary consumer initiatives						
<i>Fairtrade</i>	-	-				
<i>Organic</i>						
<i>MSC</i>						
Voluntary producer initiatives						
<i>CSR</i>						
<i>Global Compact</i>						
<i>Sector initiatives (MMSD)</i>						
<i>Equator Principles</i>						

Source: Review of methods in section 6

Key:

	Initiative explicitly sets out to and achieves objective
	Achieved in a limited way or only indirectly
-	Objective not achieved

Regulated initiatives

All but one of the regulated initiatives managed to stabilise prices and therefore indirectly promote development. Only commodity agreements were assessed to be able to tackle the

¹⁴ It can be argued that the extraction of exhaustible resources can be consistent with sustainable development as long as the benefits of extraction have sufficiently contributed towards the promotion of renewable resources to compensate for the loss. This could be in the form of improved technology, knowledge or infrastructure in order to better extract renewable resources in the future. It might also include an improvement in social learning or social and human capital which might help to deal with future challenges associated with the loss of exhaustible resources.

‘commodity trap’ directly, and were therefore the only one which could have been considered to have achieved any of the environmental objectives. However, the viability of commodity agreements is highly questionable and dependent on the economics of each particular commodity as well as the political will and trust among the participating countries to maintain prices at sustainable levels. Compensation finance did not achieve any of the objectives as set. Whilst it is hard to argue against assistance to the most vulnerable countries at times of commodity price shocks, finance as it is presently being provided may well actually be acting as a barrier to more long-term solutions. Its use should therefore be considered only where it is essential.

Voluntary initiatives

Overall, voluntary consumer initiatives performed well against the objectives, although organic type initiatives failed to provide any of the social objectives including tackling the ‘commodity trap’. The MSC initiative also performed very well in many areas, although failed to provide the more social objectives of stabilising prices and promoting development. There is also some uncertainty associated with the ability of fair trade initiatives to promote development or promote a wider sustainable commodity system. No doubt the outcome from fair trade would be the significant achievement of the Millennium Development Goals within participating communities. There is however some scepticism expressed within the literature whether such initiatives might in fact be holding back the kind of community empowered development required for such communities to become self sufficient. The literature also suggests that fair trade initiatives might in fact be destabilising the non-verified commodity market. As for producer led initiatives, there is uncertainty about what form the outcomes of business led voluntary producer initiatives would take. It is perhaps more helpful to consider sectoral initiatives such as MMSD and the Equator Principles, CSR and businesses’ involvement with the Global Compact as useful vehicles for supporting other initiatives.

A key issue in relation to Figure 6.1 is the strength of consumers’ preferences in relation to social and environmental values. If it can be assumed that consumers desire sustainable commodity production, it can also be assumed that consumers will be willing to pay a premium to achieve it. However, there will no doubt be some level of trade-off desired between the objectives of sustainable commodity production and the price that consumers are asked to pay. They may want to know that their attempts to promote sustainable commodity production through a segmented market are not having a detrimental impact on the non-segmented producers. Also, many consumers will desire to achieve the objectives of a more sustainable commodity production in a cost-efficient way. These issues would therefore mean that voluntary initiatives, and particularly voluntary consumer initiatives, have limited potential for providing a more comprehensive sustainable commodity producing system, not least because the consumer surpluses associated with such objectives are prone to capture by suppliers and retailers.

6.6 Methods and SIAMETHOD’s contextual realities

The methods discussed in this Section aim mitigate some of the sustainable development impacts of commodity production. In some cases will also tackle some of the negotiating

CRs which presently act as barriers to further trade liberalisation. Figure xx considers this in the table format proposed in Voituriez *et al* (2006).

Figure 6.2 - Potential for methods to tackle CRs

	Responses							
	Government backed responses				Consumer responses		Producer initiatives	
	Commodity agreements	Market based initiatives	Marketing boards	Compensation finance	Fairtrade initiatives	Organic (verified initiatives)	Marine stewardship Council	CSR motivated initiatives
1 – Protectionist bias					+			++
2 – Adjustment cost	+	+	++/-	++/-	++/-	.	.	++
3 – Externality	+	+	+	+/-	++	++	++	++
4 – Collective preferences			*			.		
5 – Universal exception						.		

Key:

+++	Method directly tackles contextual reality and is not limited in its scope
++	Method directly tackles contextual reality to some extent
+	Method only indirectly tackles contextual reality
-	Method has the potential to deepen the contextual realities barrier to agreement
*	Potentially provides a compensation mechanism
.	Does not tack contextual reality

Adjustment and externality arguments:

Government backed methods- Neither adjustment capacity nor externalities are tackled directly by commodity agreements, market based initiatives or marketing boards. They may however tackle these CRs indirectly by providing a more stable environment for producers to operate in. A similar assessment is made for compensation finance and externalities except that compensation initiatives do set out to provide, and no doubt in some cases successfully, protection and adjustment to price instabilities which result from trade liberalisations. There is however considerable doubt expressed within the international institutions themselves as to whether such finance in fact hampers long-term adjustments and might lead to further price instability.

Consumer initiatives- Both Fairtrade and organic initiatives manage to address the issue of externalities in commodity production. However, they are limited by the voluntary nature of the initiatives. Organic initiatives would be unlikely to provide any adjustment to trade liberalisation and although fairtrade initiatives help protect producers from trade liberation, there is concern expressed in the literature that this might in fact be preventing adjustment to the wider liberalised market, therefore the participating producers are vulnerable if they if they ever failed to sell onto the segmented market.

Producer initiatives- All of the initiatives which are motivated by CSR (MMSD, Equator principles and the UN’s Global Compact) have the potential to help with the social adjustments required after trade liberalisations, as well as tacking the externalities within the scope of the companies operations.

The MSC initiative can be seen as a hybrid of all three types of method as it is essentially a voluntary producer led commodity agreement which requires the support of consumers. Clearly the initiatives manage to tackle the externality argument on a voluntary basis. However, it does not provide any adjustment capacity in the event of trade liberalisation.

Collective preferences and protectionist bias arguments:

Collective preferences- The initiatives led by consumers and producers do manage to meet the individual preferences often held among consumers. However, in their present voluntary form, they do not express society-wide collective preferences. A collective preference differs greatly from individual preferences in this context due to the potential for free riding within the collective. For example, a negotiating group might have a collective preference for their imports not to have an overall impact on rainforests, and that the collective as a whole should pay more to avoid this. However, many within that group will be prone to free riding as their individual impact would unlikely pose a threat to sustainability of the system in itself. Therefore, any method which seeks to give expression to collective preferences will probably need to have some form of compulsion among those who share the collective preference.

All of the government backed initiatives provide potential compensation mechanisms which might be required within the SIAMETHOD framework.

Protectionist bias barriers- As part of their CSR strategy, businesses might also resist the opportunity to lobby for market protection motivated by their narrow interests, in favour of the more long-term benefits of being perceived as a responsible business. All of the other methods do not tackle this CR directly. They do provide indirect mitigation to the degree that they tackle the other CRs, thereby removing the false arguments available to lobbyists.

Figure 6.2 also contains a column on ICREAs, which are the subject of the next section.

7 Recommendations for sustainable commodity production

7.1 Characteristics of an effective method

From the discussion of issues in Section 6.5 and 6.6, it is possible to identify the features of a system of sustainable commodity trade. It is clear that the objectives of supply and price control behind previous commodity agreements would still have an important part to play. There are also a number of sustainable development challenges (such as environmental protection, sustainable resource management and development) which previous commodity agreements largely failed to tackle directly, but would need to be dealt with better for commodity trade to be sustainable.

Any solution would need to be economically and politically viable. Arrangements would need to be universally acceptable to all producing and consuming countries. It is likely that any undesired extraterritorial application of environmental standards by consuming countries on producing countries would need to be compensated in a way that avoids the loss of foreign revenue for the producer country. The precise form of compensation which would be agreeable to producer countries will depend on the particular realities of the situation in question. However, some of the government backed initiatives highlighted in Figure 6.2 provide a form of impact mitigation and compensation which might form part of a compensation package. The agreement would also need to be structurally viable, and to the extent necessary, politically independent of any particular government.

7.2 Review of previous proposals for sustainable commodity production

Kox (1993, p.12) proposed International Commodity-Related Environmental Agreements (ICREAs) in order to regulate trade-related environmental issues with respect to primary commodities. ICREAs require producer and consumer countries to agree on measures to make the production of specific commodities for export (more) sustainable. A key issue explored by Kox when developing the ICREA was whether side payments or compensation were necessary. He explored the potential of using standards and norms in the absence of side payments, standards and norms combined with trade preferences or side payments via levies on imports or producer cartels. Kox concluded that some form of side payment from the importing country to the producer was both necessary and appropriate and concluded that a fund from import levies was the best payment mechanism. The proposed mechanism consisted of a fund which producer countries could draw upon in order to implement environmental measures which would otherwise not be possible. The fund was allocated to countries based on levels of production or environmental need, but remained separate and independent from producer governments. Kox argued that the fund may only need to be transitional as the adoption of new technologies would in time become the norm, and the price would accommodate the higher cost of production.

7.3 Proposal for a new generation of sustainable commodity agreements (SCAs)

Kox's ICREAs provide a useful mechanism for a new generation of sustainable commodity agreements. If implemented in a non-discriminatory way as part of an international agreement they should be consistent with trade discipline as set out in GATT (1994). They should also be a cost-effective mechanism as they are less prone to rent capture further down the product chain. Moreover, they could be linked to certification schemes (for example, MSC or FSC), such that only non-certificated imports paid the levy, the funds from which were available to non-certificated producers to achieve certification.

However, as proposed by Kox ICREAs do not tackle the wider sustainability challenges as identified at the end of section 6.5. It is therefore proposed that ICREAs are extended so that they can tackle the wider challenges associated with sustainable development. It is also proposed that private bodies including international corporations should be able to compete for funds and win contracts to provide services (perhaps to smaller non-international companies) which lead to the achievement of a more sustainable commodity producing system. This should provide companies with a way of achieving their CSR goals whilst maintaining their competitiveness, as well as perhaps providing a cheaper way of achieving the sustainable development services. Such services and projects might include:

- **Environmental** technological deployment as already described by Kox (1993).
- **Social and development** projects associated with producer communities which would not be possible without funding.
- **One-off compensation funds** for capacity reduction in conjunction with sustainable resource and stock management initiatives (see for example MSC and fisheries).
- **Research effort and marketing advice** in order to provide producers with information and share best practice.
- **Supply and price management services** contracted by a buffer-stock type manager. Although the supply management services such as storage capacity would typically be directly funded and independently managed by the fund's secretariat, there is no reason why fund managers could not out-source at least some of the buffer-stock services, as long as overall it remained in their control. This may well generate innovative supply management solutions throughout the commodity chain including better utilisation of existing infrastructure and the increase in supply/demand flexibility. Such a decentralisation of supply management services may provide greater long-term resilience in the system than the large scale storage capacity typically used in buffer stock systems.

7.1 Issues arising from the proposal

Such a proposal raises a number of issues, which are now explored in turn.

The SCA levy and domestic production

It is intended that SCAs should promote the sustainable production of and trade in commodities. While in principle it would be desirable for (uncertificated) production for domestic use to pay the SCA levy, in practice this would be very difficult to enforce, so it should only be levied on imports. Priority in the application of the funds should be given to production that clearly intended for exports, to achieve certification, although it is to be hoped that as more sustainable production methods for exports were applied, they would come to be applied to production for the home market as well. However, the exemption from the SCA levy of production for domestic use would have to be internationally agreed or it would be likely to be seen as unacceptable discrimination under current GATT rules.

Implementation of SCAs

It is not necessary for SCAs to be agreed and implemented by all producing and importing countries. However, less than full agreement would present a number of challenges and limitation to the success of the agreement. This is now explored under a number of hypothetical implementation scenarios:

- *Multilateral producer led implementation* - This would be available if sufficient producing countries agreed to implement equivalent export levies. Based on existing experience with commodity agreements, without external control such a solution would be vulnerable to politicisation and revenue raising by participating countries.
- *Bilateral implementation* – The mechanisms behind the agreement might be considered within a bilateral trade agreement. This is only realistically feasible if the comparative advantage of the producer country is sufficient to remain the dominant exporter after the levy is imposed¹⁵. Where this is the case, the opportunity for *unilateral producer implementation* would have been present in advance of the negotiation. It would therefore seem most likely that the SCA would be proposed as a result of a collective¹⁶ preference by the importing trade partner as part of their SIA process. In this case, the producer country will wish to be compensated in some way.
- *Unilateral importer implementation* – This would not be considered as discriminatory as long as it was imposed on imports from all trade partners as well as domestic production where relevant (see above). However, such a levy would impose additional costs on domestic manufacturing, and might therefore erode the implementing country's comparative advantage on exports of manufactured goods. In its extreme, such implementation would lead to manufacturing **product chains** being diverted away from implementing countries and the same 'like products' being imported from non-participating countries. Under such circumstances an implementing country might seek to impose a proportionate levy on the imports of manufactured goods from countries not

¹⁵ It would not be permissible under GATT to restrict third country's imports as a result of a bilateral agreement.

¹⁶ Note: Many of the present consumer led initiatives are motivated by individual preferences. If a willingness to pay a levy was to be proposed within an international agreement it would represent a collective preference on the part of the proposing trading nation.

- participating. This would probably be in contravention of WTO rules as the levy would be discriminating against ‘like products’.
- *Multilateral importer led implementation* – As already explored, less than full implementation may represent a threat to participating countries’ manufacturing sectors. However, if implemented in good faith within a multilateral international agreement¹⁷, implementing countries have the opportunity of imposing equivalent import levies on non-participating countries’ product imports without being in contravention of GATT (1994) (see section 5.3). Such a levy would be based on the level payable on the total material requirement throughout the production chain. Because it is already a sizeable trading bloc, the EU would be in a good position to begin the negotiation of an international agreement along these lines.

Relation of SCAs to existing initiatives

The proposed SCAs do not prevent the existence of voluntary consumer initiatives or certification schemes, such as MSC or FSC, or organic and fair trade, although these schemes could become the criteria which would provide exemption from the levy. Companies which have implemented voluntary producer initiatives would probably find it relatively easy to obtain certification for their production and therefore avoid the levy.

The use of SCAs within SIAs

SCAs would require considerable assessment in terms of how they should be implemented in order that trade negotiators have a detailed understanding of their implications. The models presently used within SIAs are well suited to study the implications of taxes and levies as well as identify the sustainable development services required to achieve a sustainable commodity production system (see Section 3.1). SIA therefore represents an ideal point for both proposing and drawing up the structure of SCAs.

7.2 Relationship between contextual realities and SCAs

7.2.1 The justification of compensation to fund SCAs

The contextual realities (CRs) as proposed by Voituriez *et al* (2006) are relevant to the proposed SCAs in terms of the potential for the proposed compensation to be used as justification for the application of the levies as required for SCAs. Compensation is only proposed under CRs 2, 3 and 4. CR 3, the externality argument, is probably the most significant in this context. There may also be a case to be made for previous trade liberalisation rounds failing to recognise and compensate for the lack of adjustment capacity in some countries, therefore leading to the over capacity and the ‘commodity trap’. This would then provide justification for SCA levies in recognition of the adjustment cost argument, explanation 2.

Section 0 explores the possibility that the issue of externality may in fact be a collective preference on the part of developed countries. Developing countries may not in fact consider the external cost of production as a barrier to trade liberalisation. Rather,

¹⁷ Such an agreement might be based on IISD’s Model International Agreement on Investment for Sustainable Development (See Mann *et al* 2005)

developed country's consumer's have a preference¹⁸ for not being 'responsible' for significant sustainable development impacts. Whether this represents a collective preference or just a number of individual preferences is a matter of political judgement on the part of each negotiating group. If however the judgement is made that there is a collective preference in favour of more sustainable forms of commodity production, the costs would need to be compensated for by these countries.

7.2.2 SCAs as a method to tackle contextual realities

Section 6.6 assessed the existing methods of mitigation in terms of their ability to tackle the five barriers to trade liberalisation. This Figure is now repeated with the addition of SCAs in Figure 7.1.

Figure 7.1 – An assessment of SCAs effectiveness at tackling CRs

	Responses								SCAs
	Government backed responses				Consumer responses		Producer initiatives		
	Commodity agreements	Market based initiatives	Marketing boards	Compensation finance	Fairtrade initiatives	Organic (verified initiatives)	Marine stewardship Council	CSR motivated initiatives	
1 – Protectionist bias				+				++	+
2 – Adjustment cost	+	+	++/-	++/-	++/-	.	.	++	++/+++
3 – Externality	+	+	+	+/-	++	++	++	++	++/+++
4 – Collective preferences			*			.			++/+++
5 – Universal exception					.				

Key:

+++	Response directly tackles contextual reality and is not limited in its scope (i.e. is universal)
++	Response directly tackles contextual reality to some extent
+	Response only indirectly tackles contextual reality
-	Method has the potential to worsen the situation in respect of this CR
*	Potentially provides a compensation mechanism
.	Does not tackle contextual reality

Figure 7.1 shows that, in common with existing methods, SCAs would not tackle universal exceptions to trade liberalisation. SCAs would also only tackle *protectionist bias* type arguments in so far as their ability to tackle the other barriers to trade, thereby preventing the arguments being used within the lobbying process. However, SCAs do set out to assist producing communities to adjust to trade liberalisation, reduce the sustainable development impacts of production and in doing so would tackle any preference consumers have not to be responsible for these impacts. The degree to which SCAs can be assessed to tackle CRs 2, 3 and 4 is however dependent on how they are implemented. If SCAs were to be adopted by a significant proportion of producers and/or consumer countries, SCAs would not be limited in their scope and could be assessed as the maxim, '+++'. If however they are only agreed upon on a bilateral or limited multilateral basis, they could only be assessed to tackle these CRs 'to some extent' and

¹⁸ Ex-post to the trade liberalisation in many cases

therefore awarded a ‘++’ assessment, as with many of the existing methods. They would still however be more effective than many of the voluntary initiatives as they capture all commodity trade within the scope of the agreeing countries.

8 Glossary of Terms

APC - African, Caribbean and Pacific countries
CAP - Common Agricultural Policy
CFF - Compensatory Financing Facility
CGE - Computable General Equilibrium
CSR - Corporate Social Responsibility
CTE - Committee on Trade and Environment
CTESS - Committee on Trade and Environment Special Session
EBA - Everything But Arms
EIAs - Environmental Impact Assessments
EKC - Environmental Kuznets Curve
EPFI – Equator Principles Financial Institution
FLO - Fairtrade Labelling Organisation
GATT - General Agreement on Tariffs and Trade
GMOs - Genetically Modified Organisms
GTAP - General Trade Analysis Project
ICA - International Commodity Agreement
ICREAs - International Commodity-Related Environmental Agreements
IFC - International Finance Corporation
IFOAM - International Federation of Organic Agricultural Movement
IMF - International Monetary Fund
MEAs - Multilateral Environmental Agreement
MSC - Marine Stewardship Council
PPMs - Process and Production Methods
PPP - Polluter Pays Principle
SCAs - Sustainable Commodity Agreements
SPS - Sanitary and Phytosanitary Measures
STEs - State Trading Enterprises
TBT - Technical Barriers to Trade
TNCs - Trans National Corporations
TRQs - Tariff Rate Quotas
WTO - World Trade Organisation

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