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Sustainability Impact Assessment of World Trade Negotiations: Current Practice and Lessons for Further Development

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ABSTRACT

Sustainability Impact Assessment (SIA) is an increasingly accepted form of strategic impact assessment, and has recently been adopted, for example, as the preferred method of *ex ante* policy assessment in the European Community. A methodology for SIA for application to international trade policy measures was developed by IDPM in 1999, and since then has been used in conducting an ongoing SIA study of the WTO trade negotiations agenda.

This paper will review the past four years' experience in carrying out SIA of trade policy, and will identify the main difficulties and challenges that have arisen in its application. The main lessons for the further development of the methodology will then be discussed.

INTRODUCTION

It has long been recognised that *ex ante* impact assessment of development decisions can make a significant contribution to achieving sustainable development (Jacobs and Sadler 1989). While impact assessment has become well established at the project level, many sustainability issues are more effectively addressed strategically, in the design of policies, plans and programmes. Strategic environmental assessment (SEA), for example, is intended to strengthen the environmental component of policy formulation, while broader forms of impact assessment such as sustainability impact assessment (SIA) may be used to integrate the analysis of environmental, social and economic issues (Kirkpatrick et al, 2001).

The European Commission has played a major role in developing impact assessment as a tool for strategic decision-making. Directive 2001/42/EC requires Member States of the European Union to introduce SEA within their own legislation or procedures for the approval of certain types of plans and programmes (EC 2001). For policy decisions made at the European Union level, the EC has from 2003 begun implementing an impact assessment process for all major initiatives which are presented in the Annual Policy Strategy or in the Work Programme of the Commission (CEC 2002). This was agreed at the Göteborg (June, 2001) and Laeken (December, 2001) European Councils, where the Community made commitments to implement sustainable development and to establish a tool for sustainability impact assessment.

The current interest in impact assessment within the European Commission, and more widely, can be explained in terms of its capacity to address a number of key issues and concerns in the area of public policy formulation and decision-making. These include: the shift towards 'evidence-based' decision-making; the trend towards 'better' governance and governance reform; and the adoption of sustainable development as the overarching objective for public policy. In the case of trade policy, recognition of the need to 'act globally' has been a further motivation for the

use of the sustainability impact assessment (SIA) approach in European decision-making.

Sustainability impact assessment (SIA) can be defined as a means of identifying and assessing the likelihood and scale of the economic, social and environmental impacts of a policy change or rules-measure. The purpose is to ensure that those charged with making policy have the most complete information possible to guide them in their decision-making. To achieve this, SIA should include processes of consultation and participation with stakeholders and other interested parties. People's differing values, perceptions and judgements affect their response to policy and therefore affect policy impact. Policy therefore needs to be shaped by an accurate perception of what those values, perceptions and judgements are. Civil society also has an entitlement to participate in public policy decision-making processes. Failure to involve the people upon whom policy will impact has in the past led to undesirable consequences which might have been avoided had those concerned had effective input to the policymaking process

SIA AND TRADE NEGOTIATIONS

Strategic impact assessment of trade agreements were initially undertaken by the governments of the United States and Canada for the North American Free Trade Agreement (NAFTA). These studies aimed mainly to provide information on environmental effects, primarily in their own countries (Government of Canada 1992, USTR 1993). The Canadian government has subsequently issued a directive setting out requirements for strategic environmental assessment of government proposals (Government of Canada 1999). In accordance with this directive, a specific framework has been developed for undertaking SEA of trade negotiations (DFAIT 2001). The framework is being applied to the Canadian government's negotiations on the Free Trade Agreement of the Americas (FTAA) and to those taking place in the WTO (DFAIT 2002). The North American approach to the impact assessment of trade agreements aims to give negotiators a fuller understanding of potential environmental impacts in their own countries, such that they may be taken into account alongside the economic and social considerations on which trade negotiations have traditionally been based. The fuller information on environmental issues enables negotiators to make more reliable trade-offs, in those cases where the effects do not provide a 'win-win-win' outcome for national economic, social and environmental concerns.

Beginning in 1999, the European Commission has adopted a broader approach to the impact assessment of trade agreements, which aims to evaluate impacts in all three sustainable development spheres (environmental, social and economic), within Europe itself, and also in all other countries involved in the trade agreement. With the EU's approach, the role of impact assessment in the trade negotiation process is less straightforward than in the North American one. For impacts in Europe, the extension of the assessment to evaluate economic and social impacts stands alongside parallel evaluations which may be undertaken in direct support of the negotiations, such as the Commission's own consultations with key stakeholders and its economic analyses of trade policy. For impacts outside Europe, the SIA may highlight areas where European interests may be at odds with those of external trading partners, at least in the short and medium term.

The European Commission has defined the objective of its SIA studies (EC 2002) as a means of integrating sustainability into European trade policy:

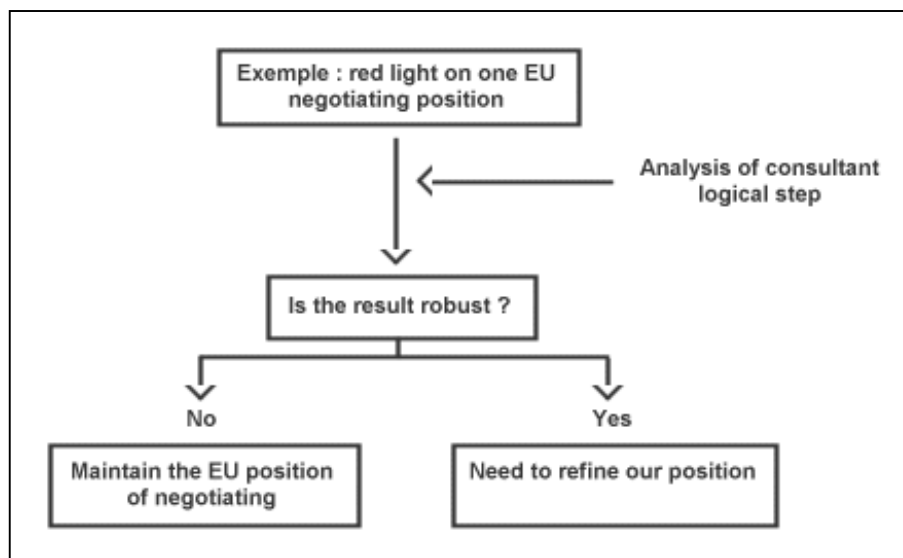
- ‘by analysing the issues of a trade negotiation with respect to sustainable development
- by informing negotiators of the possible social, environmental, and economic consequences of a trade agreement
- by providing guidelines to help in the design of possible flanking measures, the sphere of activity of which can exceed the commercial field (internal policy, capacity building, international regulation), and which makes it possible to maximise the positive impact and to reduce the negative impact of the trade negotiations in question.’

The Commission clearly states that ‘the objective of an SIA is not to assess the desirability of further liberalisation overall (the tool is not able to tackle so broad a strategic question)’. Instead, the implementation of the SIA contributes:

- ‘politically to show the will of the EU to anchor liberalisation in the concept of sustainability
- technically to maximise the benefits of liberalisation by better management of environmental, social and economic resources in the long term.’

The EC recognises that, in order to achieve these political and technical aims, the results of the SIA must be integrated into the trade negotiations themselves. This occurs as shown in Figure 1.

Figure 1. Integration of SIA results into negotiations



Source: EC (2002)

If the impact assessment indicates a ‘red light’, the Commission will modify its negotiating position if it considers the result to be robust, but otherwise it may not. The Commission may publish its response on its website, although its decisions may entail a degree of confidentiality – ‘SIA studies can be carried out without calling into

question the confidentiality principle of our negotiation strategy since the scenarios are established within a sufficiently broad universe as not to reveal our positions to our partners'. This requirement adds an extra degree of complexity to the SIA process, since the scenarios it analyses must be independent of the EU negotiating position.

The difficulties of integrating SIA into decision-making are somewhat smaller in relation to flanking measures than they are for the trade negotiations themselves. As well as providing support (or a challenge) for Europe's trade negotiators, the SIA is intended to serve the wider international aim of ensuring that negotiated agreements are supportive of, and not detrimental to, globally sustainable development. While the study is intended to inform discussions within the negotiating chamber, its wider purpose is to support parallel efforts to strengthen the role of the world trade regime in promoting sustainable development.

In particular, the SIA studies are intended to inform the design of the European Union's own development assistance programme, in order to link it more closely to developing countries' needs, to help strengthen their capacity to adjust to new trade rules, and to make best use of international trade in achieving their developmental goals. Beyond this, the SIA programme aims to inform Europe's contributions to framing wider international action on trade and sustainable development issues, through the WTO itself, through United Nations initiatives, and in other multilateral arenas. In parallel, the studies contribute to a growing body of literature available to all national, international and non-governmental organisations working to make trade more supportive of sustainable development.

THE SIA PROGRAMME FOR WTO NEGOTIATIONS

The EU began its SIA studies of WTO trade negotiations in 1999. The Institute for Development Policy and Management at the University of Manchester was contracted to develop a SIA methodology (Phase I) and to undertake a preliminary assessment of the Seattle agenda (Phase II) prior to the Ministerial Meeting in Seattle in late 1999 (Kirkpatrick et al 1999, Kirkpatrick and Lee 1999). In 2001 a further study was completed which developed the Phase I Methodology (Kirkpatrick and Lee 2002). This extended methodology is currently being applied to the negotiations mandated by the Ministerial Meeting in Doha (Phase III), where the objective is 'to provide an analysis of the sustainability impacts of agreed policy options or scenarios, and to present this analysis in such a way as to give a concrete input for negotiators in their search for a balanced set of policies, including any necessary flanking measures'.

The SIA programme for the Doha agenda consists of:

- a preliminary global SIA covering all sectors of the negotiations;
- a series of detailed sector studies;
- a final global SIA of provisional agreements.

The preliminary overview SIA is intended to inform the selection of areas for more detailed study. The final global overview SIA will draw together the results of these detailed studies, to give an indication of the overall impact on sustainable development of the complete set of trade agreements.

Under the programme established in Doha these agreements should culminate in a single undertaking by 1 January 2005, although this has yet to be confirmed following the setback at the 2003 Ministerial meeting in Cancun.

The trade measures covered by the Doha Ministerial Declaration are categorised in three groups:

- measures with a pre-existing negotiation mandate;
- measures introduced into the WTO negotiation agenda at the 1996 Ministerial Conference in Singapore (the Singapore issues);
- further measures subject to discussion under the Doha agenda.

The measures included in these three groups are shown in Table 1.

Table 1. Trade measures in the Doha agenda

Existing negotiation mandate	<ol style="list-style-type: none"> 1. Agriculture 2. Non-agricultural market access (NAMA) 3. Services 4. Trade and environment 5. Dispute settlement 6. Trade Related Aspects of Intellectual Property Rights (TRIPS) 7. WTO Rules (anti-dumping and subsidies; regional trade agreements) 8. Implementation issues in developing countries
Singapore issues	<ol style="list-style-type: none"> 9. Trade and investment 10. Competition policy 11. Trade facilitation 12. Transparency of government procurement
Measures subject to discussion	<ol style="list-style-type: none"> 13. Other measures <ul style="list-style-type: none"> Electronic commerce Small economies Trade, debt and finance Technology transfer Technical cooperation and capacity building Least-developed countries Special and differential treatment

All of these measures have been assessed in the preliminary global overview SIA (George and Kirkpatrick 2003a). To keep pace with negotiation timescales, a number of detailed SIAs have been carried out in advance of its completion. These cover the following sectors or sub-sectors:

- Agriculture - wheat crops
(Maltais et al 2002)
- Non-agricultural market access - pharmaceuticals
- Non-agricultural market access - non-ferrous metals
- Non-agricultural market access – textiles
(Morrissey and te Velde 2003)
- Services - environmental services
(Bisset et al 2003)

- Competition policy

(Clarke, Evenett and Gray 2003)

Based on the results of the preliminary overview SIA, three further detailed SIAs have been initiated:

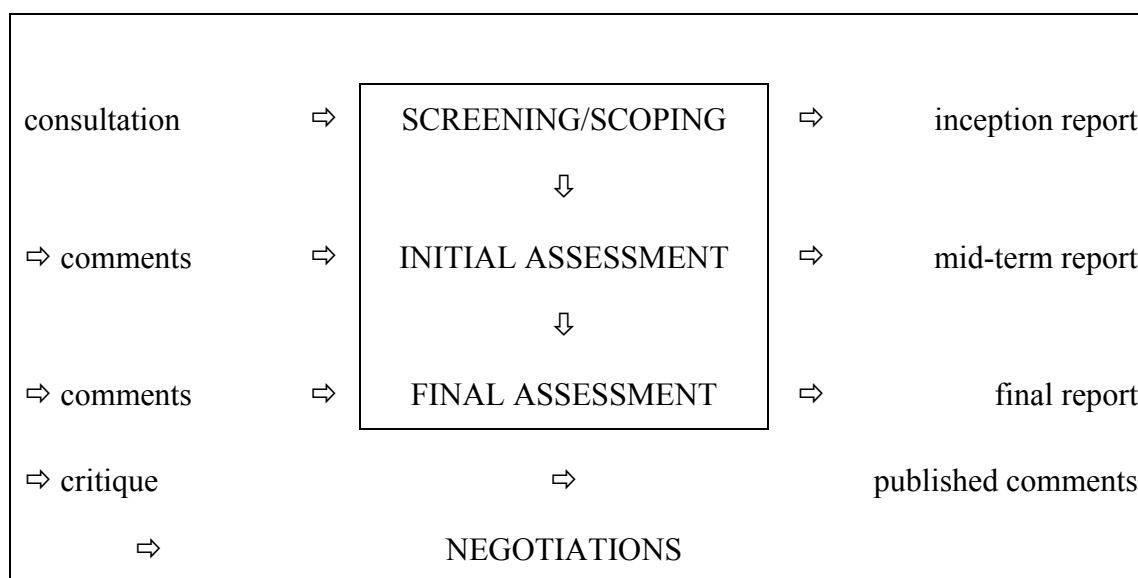
- Agriculture – general
- Agriculture/non-agricultural market access – forestry
- Services – distribution services

All of these detailed SIAs, and any others which may be completed during the current round of negotiations, will contribute to the analysis to be undertaken in the final global overview SIA of the full set of Doha measures.

THE SIA METHODOLOGY

The aim of the SIA process is to combine public debate with rational analysis, to provide information on the likely impacts of potential trade agreements on sustainable development, both in the EU and for its trading partners. The process gathers different views and evaluates them in the light of available information, to provide objective information that is intended to inform the negotiations and contribute to the design of national and international mitigation and enhancement measures (flanking measures). The process is summarised in Figure 2.

Figure 2. Overview of the SIA process



Initial consultation of stakeholders informs and complements a review of published documents presenting different viewpoints, from which the key aspects of the negotiation agenda and their potentially significant impacts are identified (screening and scoping). The findings are published on the project website in an inception report, which describes the investigations that will be conducted during the remainder of the study. This report and the subsequent mid-term and final reports provide a basis for ongoing consultation, through written comments and public meetings.

The assessment process (the central box of Figure 2) includes the following components.

Negotiation scenarios

The assessments are based on two scenarios:

- a *base scenario* representing the existing situation. This assumes full implementation of existing WTO agreements;
- a *notional agreement scenario* which represents an assumed outcome to the negotiations. Since the negotiations are in general intended to extend trade liberalisation, this may be referred to as a *further liberalisation scenario*, representing the strongest probable degree of liberalisation likely to be achieved.

In the ideal, these two scenarios represent the outer bounds of the likely outcome of the negotiations, from which the impacts of other possible outcomes may be inferred through interpolation or extrapolation (in either direction). For discrete measures for which this approach does not apply, specific alternatives are considered.

Country groupings

In the detailed sectoral SIAs, four main country groupings are considered:

- the European Union
- non-EU developed countries
- developing countries
- least developed countries

Where significantly different impacts may occur within a country group, for example between net importers and net exporters or between industrial, agricultural and natural resource-based economies, the analysis takes this into account. Individual countries are chosen for specific case studies, to yield information relevant to these groups or sub-groups.

Sustainability themes and indicators

The SIA methodology identifies nine core themes or indicators, which are used as a checklist of issues to be investigated, and for summarising the results. These are:

- Economic impacts: real income; fixed capital formation; employment
- Social impacts: poverty; health and education; equity
- Environmental impacts: biodiversity, environmental quality; natural resource stocks

Two further themes have been defined for evaluating the impacts on sustainable development processes:

- Consistency with principles of sustainable development
- Institutional capacities to implement sustainable development strategies.

These core themes are complemented by the use of second tier indicators, which identify specific impacts, and provide a basis for subsequent monitoring. These may be defined differently for each study, to focus on key impacts that have been identified.

Impact significance

Three levels of significance are defined:

- *non-significant impact* – compared with the base situation
- *lesser significant impact* – marginally significant to the negotiation decision, and if negative, a potential candidate for mitigation
- *greater significant impact* – significant to the negotiation decision, and if negative, merits serious consideration for mitigation.

The methodology also defines the following factors which need to be taken into account in evaluating significance:

- the extent of existing economic, social and environmental stress in affected areas;
- the direction of changes to base-line conditions;
- the nature, order of magnitude, geographic extent, duration and reversibility of changes;
- the regulatory and institutional capacity to implement mitigation and enhancement measures.

In interpreting these factors, judgements have to be made on the importance of the predicted change in relation to the base situation, i.e. the prevailing circumstances. Where impacts cannot be quantified, a judgement must be made of the likelihood that impact magnitude reaches the level at which it is considered significant. These comparisons and judgements should be made explicit, by identifying the base situation against which comparisons are made, and by explaining the reasoning through which the impact is judged to be significant.

Assessment methods

The assessment begins by identifying the effects on market incentives and opportunities which result from the negotiated change to a trade agreement. This will induce a change in economic behaviour, which will in turn affect the production system, with consequential social and environmental effects. The principal techniques used to evaluate the cause and effect relationships and their potential impacts are:

- **Literature evaluation and case studies.** The major part of the assessment consists of reviewing detailed case studies and theoretical analyses that have already been carried out for different types of trade measure in different countries, and interpreting them in relation to the Doha agenda and the SIA

scenarios. The assessment examines the theoretical and empirical justification of these studies' findings, in order to draw balanced conclusions.

- **Economic modelling.** For some types of trade measure, such as tariff changes, economic modelling techniques are well established. In particular, Computable General Equilibrium (CGE) models are widely used for evaluating the economic effects of changes in trade policy. The SIA makes use of published results of such studies (and additional studies where appropriate) to give quantified estimates of the economic impacts that are likely to occur once the production and trading systems have settled into a new equilibrium.
- **Causal chain analysis.** Causal chain analysis (CCA) is used to infer social and environmental impacts from economic ones, and also to evaluate impacts in all three sustainable development spheres during the period when the economic system is adjusting to the change. Case study information is used to give an estimate of the magnitude of the effects.

CCA, supported by empirical data where available, is also used to evaluate the effect of the changed trade measure on development processes. These dynamic effects, e.g. on investment or technological development, may have a greater long term influence on sustainable development than the equilibrium effects calculated by CGE models. The process is summarised in Box 1.

Box 1. Impact chain analysis

1. identify the effects on market incentives and opportunities which result from the proposed change to a trade measure;
2. identify induced changes in the economic behaviour of producers, consumers and intermediaries, and hence effects on the production system;
3. evaluate the dynamic nature of these effects, to identify short and medium term adjustment effects, and longer term outcomes once the production and economic systems have adjusted to the changed trade measure;
4. assess the significance of linkages from the effects on production relationships to sustainability impacts, e.g. changes in employment, investment, production system, environmental quality, natural resource stocks, biodiversity, level and distribution of household income, gender balance of paid and unpaid labour, prices of essential goods and services, livelihood opportunities, poverty levels etc., and interactions between these effects;
5. assess the impacts of the change in the trade measure on sustainable development processes, and hence on economic growth rates and corresponding long term dynamic effects on social and environmental factors;
6. evaluate interlinkages between the measure being assessed and other components of the trade policy or agreement, and their influence on the impacts identified.

Cross-cutting issues and overall impact

Many of the trade measures under negotiation interact with each other, such that impacts due to one measure will be dependent on actions taken under another. In addition to these interactions, they all combine to contribute to a number of cross-cutting effects.

Cross-cutting effects may be classified into five broad groups; scale, technology, structural, location and regulatory.

- *scale effects* result from growth in production and consumption
- *technology effects* arise from technological developments which create products or services whose impacts may be different from those they replace
- *structural effects* relate to structural changes in the economy
- *location effects* occur when production moves from one country to another
- *regulatory effects* relate to the nature and effectiveness of social and environmental policies or regulations.

These cross-cutting effects are considered in each detailed SIA. Their cumulative effect will be evaluated in the final global overview SIA of the full set of proposed agreements.

Mitigation and enhancement

A key part of the SIA is to identify and evaluate potential flanking measures that might be used to mitigate negative impacts and enhance positive impacts that have been identified. This stage of the SIA is particularly important in relation to the developing and least developed countries, whose needs and interests were given particular attention in the Doha Ministerial Declaration.

Potential mitigation and enhancement measures fall into five main groups:

- Measures which are closely trade-related and which might be built into a WTO agreement itself.
- Closely related side or parallel agreements between WTO member countries, or in regional agreements which may be part of international agreements.
- Collaborative agreements and other joint initiatives between international organisations to clarify the relationship and strengthen the consistency between international trade agreements and other types of international agreements.
- International and regional initiatives to promote technical cooperation and capacity building in developing countries
- Measures by national governments to remedy market imperfections, regulatory failures, social inequalities, which are harmful to sustainable development and whose removal could enhance the contribution which trade measures may make to sustainable development.

Monitoring

On completion of the negotiations it is necessary to identify any deviation between actual impacts and those predicted, and to take corrective action where necessary. The SIA methodology therefore includes the design of provisions for monitoring and ex post evaluation of the sustainability impacts of agreements and ex post evaluation of the SIA studies. Such monitoring and evaluation should engage the interest and commitment of the key stakeholders, in international and national administrations, and within civil society. Particular attention should be paid to the involvement of stakeholders from developing countries.

SIA RESULTS - PRELIMINARY GLOBAL OVERVIEW SIA

The full results are given in George and Kirkpatrick (2003a, 2003b), along with details of how the scenarios are interpreted. For each of the trade measures listed in Table 1, the results are summarised in the form shown in Table 2.

Table 2. Typical impact summary table - Market Access for Non-Agricultural Products

Impact	Type of country affected	Causal factors	Factors affecting significance	Potential significance
<u>Economic</u> income	developed Asian countries Latin America sub-Saharan Africa and small island states	economic efficiency		▲ ▲ △ ▽
employment	developing developed and some developing	loss of tariff revenues short term adjustment, e.g. textiles and clothing	competitiveness, domestic policy	▽ ▽
<u>Social</u> equity	developed and some developing	short term employment	domestic policy	▽
equity, poverty, gender, child welfare	developing	short and long term employment	domestic policy, labour value added	?
<u>Environmental</u> pollution	developing	increased production	effectiveness of regulation	▽
<u>Process</u> development strategy	developed East Asia other developing	long term value added of employment accelerated industrialisation limits on development strategy	development of new technology and high value services flanking measures on development policy	? △ ▽

Symbols used to show impact significance

blank	impact has been evaluated as non-significant compared with the base situation
△	positive lesser significant impact
▽	negative lesser significant impact
▲	positive greater significant impact
▼	negative greater significant impact
△▽	positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
?	effects are uncertain

The information given in these impact summary tables is intended for use in a subsequent detailed SIA as follows:

- Column 1 This shows the types of likely significant impact that have been identified, which may be used in the initial scoping of a detailed sector study
- Column 2 Entries may be used in scoping and the selection of country case studies.
- Column 3 Indicates factors to be considered in the CCA of a detailed SIA
- Column 4 An entry in this column indicates potential for either a mitigating or an enhancing measure, or a combination of the two
- Column 5 May be used in screening and scoping of detailed SIAs.

The complete results of the preliminary overview SIA have been used in the screening of the full Doha agenda, to identify those sectors or sub-sectors for which more detailed SIAs may be needed. Where relevant, the volume of trade in a sector or sub-sector is taken into account, as well as the significance of assessed impacts within the sector. The results are shown in Table 3.

Table 3. Priority areas for detailed sector SIA studies

Sector	Significance		Comments
	Sustainability impacts	Trade volume	
Agriculture.	xx	xx	An SIA of the entire agriculture sector should be considered, with particular emphasis on grains (other than wheat), livestock, multifunctional issues and food security. The detailed SIA that has already been carried out for wheat and edible oil crops showed that in many countries the impacts interact strongly with those for other grains, particularly rice. There are also strong interactions between the grains and the livestock subsectors, while multifunctional and food security issues have potentially important sustainability impacts in both developed and developing countries, with interactions throughout much of the sector.
Automobiles, automotive products and other transport equipment.	x	xx	This is a large sub-sector in trade volume, with relatively high trade barriers in developed as well as developing countries. It has a potentially high beneficial impact on sustainable development through its contribution to the industrialisation of developing countries.

Leather goods and footwear.	x	x	These products still have high market access restrictions, and provide important export markets for many developing countries. The industry can also be a highly polluting one.
Energy services.	x	x	These services have potential impacts which in some respects are similar to those for environmental services, for which a detailed SIA has already been carried out. The economic significance of the sector is however different, with potentially large impacts in all three sustainable development spheres.
Financial services.	xx		While relatively small in trade volume and already subject to a degree of liberalisation, financial services have particularly strong potential for contributing to development, while being highly susceptible to adverse effects if not properly regulated.
Distribution services.	x	x	The opportunities for liberalisation are large, and the sector has potentially significant social impacts.
Tourism and travel services.		xx	This is a large sector with significant potential for further liberalisation. Significant sustainability impacts are associated with the sector, although they tend to derive from development of the industry, rather than from trade liberalisation as such.
Trade and Investment.	xx		This area has high potential for contributing to development. There are important interactions with WTO Rules and market access for industrial products, and also competition policy (for which a detailed SIA has already been carried out). An SIA in this area would need to consider all these interactions.
Trade and Environment.	xx		The negotiations and related WTO initiatives in this area have particular significance for cross-cutting issues and the impact of the Doha agenda as a whole.
TRIPs and public health.	x		While the trade volumes associated with the TRIPs negotiations are small, the potential impacts on public health are significant and controversial.
Other areas worthy of consideration: <i>Chemicals, Electrical and Electronic Equipment, Maritime Services, Construction Services, Forest Products, Fish and Fish Products</i>			

xx: high significance
x: medium significance

The results of the preliminary overview SIA form the basis for evaluating the first of five criteria agreed with the Commission at the inception of the SIA programme, for selecting sectors for detailed study. These criteria are shown in Table 4.

Table 4. Criteria to be used in selecting and scheduling sectoral and sub-sectoral SIA studies

1.	The likely significance of the sustainability impacts of the trade measure (or component of the measure) if implemented	Consideration should be given to economic, environmental and social impacts, both positive and negative. In general, the greater is the likely significance, the more necessary an SIA is likely to be. This is especially so, where more than one of the three types of impact are likely to be significant and where these include potentially significant negative impacts.
2.	The timing of the negotiations relating to the trade measure and its components.	The sectoral SIA should commence, and should be completed, sufficiently early to contribute to the negotiations and resulting agreement on the trade measure. This should be taken into consideration when scheduling the order in which SIAs should be undertaken.
3.	Opinions of the Commission.	These should be primarily based upon the informed use of all of the other criteria in this list, and drawing upon the knowledge and expertise obtainable through inter-Directorate consultations.
4.	Opinions of other stakeholders and representatives of civil society	Care should be taken to ensure, as far as possible, that consultations are sufficiently comprehensive in their coverage (e.g. in terms of different types of stakeholders; concerns over economic, environmental and social impacts; and impacts on different regions of the world).

5.	Feasibility in terms of time and resources, and methods and information available for satisfactory completion.	The feasibility of the proposed individual SIAs which are proposed, their scheduling and the programme as a whole should be verified according to the time and resources, and methods and information, available for their satisfactory completion.
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On the basis of all five criteria and the public consultation process, the Commission selected the following areas for more detailed study in the next stage of the SIA programme:

- Agriculture – general
- Agriculture/non-agricultural market access – forestry
- Services – distribution services

In the previous stage of the programme, detailed sectoral SIAs have already been carried out for wheat crops (Maltais et al 2002), pharmaceuticals, non-ferrous metals and textiles (Morrissey and te Velde 2003), and environmental services (Bisset et al 2003). The results of these studies are summarised in the next section.

SIA RESULTS – DETAILED SECTOR STUDIES

Agriculture (wheat crops)

Net food importing developing countries. Food security problems for vulnerable groups, such as rural women. Small-scale farmers face increased competition from international markets. Negative environmental impacts in cases where farming practices are currently unsustainable.

Net food exporting developing countries. Positive economic impacts, depending on a country's ability to meet future domestic demand. Social impacts may arise through conflicts between social groups who gain or lose. Small-scale farmers and the rural poor in general are vulnerable to negative effects.

Environmental impacts vary widely. Indonesia demonstrates clear negative impacts on forests. 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. Actual impacts depend on how domestic policy develops.

Net food exporting developed countries. Positive economic impacts. Positive short-term social impacts in Australia, with long-term risks of potential negative social impacts associated with the adjustments needed to manage land degradation problems. Negative environmental impacts are associated with production increases, more significant over the long run.

USA. Large farm households are expected to gain while intermediate farm households may face some adjustment problems in an increasingly competitive market. Domestic support measures may mitigate negative impacts on intermediate farmers and deal with environmental impacts of the sector.

EU. Similar impacts as in the US, but social impacts are expected to be more positive.

Pharmaceuticals

Economic impacts

Increased market access in pharmaceuticals which results in a reduction in prices will generate economic benefits for producers of medicines using imported APIs (mostly developed countries), and for importers of medicines. Larger developing country producers of generic drugs such as India and Brazil, should gain from lower tariffs to the extent that they import APIs. However, increased competition from imports may lead to reduced production. In the longer term, as domestic producers adjust, efficiency gains may occur and domestic production recover.

Social impacts

The potential social impact of improved market access for pharmaceuticals will occur mainly in developing and least developed countries. In importing countries with domestic production capacity there is likely to be an initial reduction in employment. Cheaper medicines will have a positive social impact.

Environmental impacts

Key environmental issues revolve around the hazardous nature of the waste emissions to all media. Where increased production is not accompanied by appropriate environmental monitoring and control, these negative environmental effects could be significant.

Impacts on development processes

Improved market access for pharmaceuticals is not expected to have a significant impact on the sustainable development process indicators.

Non Ferrous Metals

Economic impacts

Improved market access will benefit exporters, particularly of processed metal products. Tariff reductions are unlikely to have a significant effect on the price of ones or basic metals, and potential gains will be from increased demand derived from increased production of processed products. For countries that have high levels of protection for domestic industry, market access liberalisation will impose immediate adjustment costs on domestic producers. Consumers may gain from cheaper imports. An immediate economic effect is the loss of government revenue: if the loss is not made up with other taxes, there may be a reduction in government expenditure.

Social impacts

There are unlikely to be significant social impacts. The exceptions are protected developing countries where a decline in local production can have an adverse social impact, through lower employment and/or lower wages; and any reduction in government spending on social services following a loss of tariff revenue.

Environmental impacts

Environmental impacts will occur at each stage in the processing chain.

Impacts on development processes

Increased market access for non-ferrous metals is not expected to have a significant impact on the process indicators.

Textiles and Clothing

Economic impacts

The economic impact on developing and least developed countries will vary by country. Competitive producers will benefit from increased exports, following the removal of quotas. Some relatively high-income developing country producers, however, are likely to see the value of their exports eroded as quota protected markets are opened to competition. Developed country consumers should benefit from cheaper imports. European producers of textiles, and mass-market clothing, are likely to lose market share.

Social impacts

The textile and clothing sector predominantly employs low-skill, low-income workers, with a high proportion of female labour. Any changes in employment are likely, therefore to have significant social impacts. Net social effects are most likely to be adverse in low-income developing countries that have weak minimum wage and job security regulations, poor working conditions, weak health and safety regulation, discrimination against female workers, and child labour concerns.

Environmental impacts

In general, textiles production is more pollution intensive than clothing production. The key environmental issues associated with the textile industry relate to the use of solvents and pesticides during processing of raw materials and use of dyes and bleaches at later stages. Without proper treatment, these cause significant damage to water resources.

Impacts on development processes

Increased market access for textiles and clothing is not expected to have a significant impact on the process indicators.

Water and Wastewater Management Services

Economic impacts

In the EU and other developed countries, corporate earnings from international operations increase. An increase is also expected in corporate employment with international projects. In developing and least developed countries, impacts include: economic efficiency gains in privatised water utilities; improvement in financial performance, and reduction in budgetary costs; increase in foreign direct investment.

Social impacts

Provided that effective regulation exists or is introduced, a number of beneficial impacts are expected in developing and least developed countries. These include extension of piped water to poorer households, and health improvements with greater access to safe water. Poverty and equity impact depends on price and affordability of piped water supplies.

Environmental

Impacts on water quality and abstraction in developing countries depend on regulation and pricing policy.

Impacts on development processes

There is potential for greater use of economic prices in developing countries, including environmental costs. To realise these and other benefits there is a need for effective water regulation agencies and policies.

Solid Waste Management Services

Economic impacts

In the EU and other Developed Countries, the impacts are similar to those for water and wastewater services.

In developing and least developed countries, impacts include: economic efficiency gains in privatised waste management utilities; improvement in financial performance and reduction in public budgetary costs; investment in infrastructure and capital equipment; a potential decline in employment in formal and informal sectors.

Social impacts

In some developing countries there will be a fall in income for poor households dependent on informal scavenging activities, but an improvement in health for households working and living in proximity to disposal sites.

Environmental impacts

Biodiversity recovery may occur in dumping and disposal areas in developing countries, along with water quality and air quality improvements. The net impact on recovery and recycling of natural materials is uncertain.

Impacts on development processes

Developing countries experience potential for greater use of and compliance with polluter pays charges. To minimise adverse impacts there is a need for effective waste management regulation agency and policies.

Competition policy

In the EU and other developed countries, the impacts of adoption of a multilateral framework for competition policy is likely to be same for EU member states and for non-EU industrialised economies. No negative effects associated with the adoption of a multilateral competition framework were identified for these industrialised economies. However, in some instances, the effects of the adoption of the multilateral framework on competition are difficult to determine with any precision, especially in the assessment of social and environmental impacts.

Over the longer term, developing economies and least developed countries may benefit from adoption of a multilateral framework. This potential outcome is tempered, however, by the exigencies of their weak political and judicial systems, as well as by their tight government budgets. The institutional deficiencies of many developing nations could constrain their ability to benefit from the reforms that would follow from the adoption of a multilateral framework on competition policy.

Additionally, the least developed economies and developing countries are likely to incur proportionally greater increases in their state outlays on implementing and enforcing national cartel laws. These expenses include the costs of training and human resources, and the potential opportunity cost of redeploying skilled human resources.

The following more detailed impacts were identified for developing and least developed countries.

Economic Impacts

Real income. There are two effects associated with real income. First, consumer prices may fall, if disincentive to cartelisation imposed by the new multilateral framework keeps prices down. The potential net effect will be that few cartels will operate, inter-firm rivalry is greater and prices are lower. The second effect associated with real income is that exports may rise. The mechanism by which a multilateral competition framework ensures lower input prices – by reducing the incentive towards cartelisation that lowers all prices in the production process – may result in higher exports.

Employment. Restrictions on output are a characteristic of many cartels. This, in turn, often results in reduced demand for labour and lower levels of employment. To the extent that the adoption of a multilateral framework strengthens national cartel enforcement efforts, and firms are discouraged from reducing output, employment levels may rise.

Net fixed capital formation. Markets that are not fully competitive tend to stunt investment. By restricting access to new innovations, by dampening rivalry, restricting output and restricting entry to the industry, entrepreneurs are dissuaded from entering the market and direct their resources elsewhere. Given that the multilateral framework promotes competition in markets, entrepreneurs may be attracted to invest.

Social Impacts

Poverty. Anticompetitive practices, such as cartelisation, raise prices in markets and tend to reduce the amount of goods that the poor can buy, or require the sacrifice of other purchases to maintain a minimum level of consumption of necessities. Effective implementation of cartel laws discourages firms from price-fixing in the first place.

Health and education. Government budgets are limited. Evidence from the 1990's shows that governments were the victims of bid-rigging and, like consumers, paid artificially higher prices. This in turn reduces the amount of resources available for the government to finance other state programmes, including health and education services. Effective implementation of the multilateral framework will free up state resources for other societal needs.

Environmental Impacts

Environmental quality and natural resource stocks. The effects on the environment are ambiguous. The implementation of the multilateral framework on competition policy will increase the efficiency of production and reduce slack. Offsetting these benefits, however, are the negative environmental impacts brought about by increased output including greater resource use and pollution. Moreover, increased trade and transport commensurate with the expansion of output could likewise have a deleterious effect on the environment. In all four groups of countries considered here it is difficult to assess, therefore, whether the overall environmental impacts will be positive or negative.

Impacts on development processes

Capacity building and technical assistance. Developing nations are expected to benefit from any increases in technical assistance and capacity building that all implemented over the longer term. Developing and least developed nations will also benefit from the ability to frame their requests for assistance around clear mandates set by the international agreement. Both developed and developing nations may benefit from the flow of information stimulated by the adoption of a multilateral framework, possibly through notification requirements, and regular meetings to share best practice.

SUMMARY AND DISCUSSION OF FINDINGS

The studies conducted to date have highlighted the following major conclusions of direct relevance to negotiations and stakeholders:

- Each of the proposed sectoral agreements is expected to have significant social and/or environmental impacts, in addition to economic impacts. If trade policy is to contribute to the goal of sustainable development, negotiators and policymakers need to take this wider range of possible consequences into account.
- Each of the agreements is expected to have negative, as well as positive impacts. Improved market access has potential negative social impacts, during the period of domestic adjustment to changes in production. Liberalisation of environmental services may also have adverse consequences, for example, for access to and affordability of water by the poor. The adoption of a multilateral framework for competition law will impose potentially significant opportunity costs on low-income countries.
- The impacts (positive and negative) are likely to be unevenly distributed between different types of countries, as well as within individual countries. For example, some developing country textile producers will be adversely affected by the removal of quota-based market access, while other more competitive producers will gain from increased exports. For environmental services, the potential benefits from liberalisation of water and waste management services are likely to be confined to the major urban areas, with limited impact on rural and agrarian communities.
- The impacts of different sector agreements cannot be assessed in isolation from each other, since there are potentially significant inter-sector linkages. For example, market access in pharmaceuticals has cross-linkages to TRIPs negotiations, and GATS liberalisation of environmental services is linked to the negotiations on Trade and Investment.
- The sustainability impacts of each sectoral agreement vary according to (a) a country's economic, social and environmental characteristics and (b) its capacity to respond to the opportunities and pressures which the agreement creates. Where a country's economic development level, social support system and environmental protection practices are at, or near to, minimum stress threshold levels, the significance of an impact (positive or negative) will be increased. In the same way, a country's institutional and broader governance capacity will affect the significance of the potential sustainability impacts. These mediating characteristics and capacities tend to operate less effectively in developing and least developed countries.
- Each of the sectoral studies identifies a number of mitigating and enhancing measures by which significant negative impacts may be reduced and positive impacts may be enhanced in individual countries. Though the details of these measures differ between sectors and countries, a common feature is that their adoption and effective implementation has a major influence on the final

impact of the sectoral agreement on sustainable development. Where regulatory failures or limitations in public policy and governance capabilities constrain the effective implementation of mitigation and enhancement measures, the potential contribution of trade liberalisation to sustainable development is likely to be significantly diminished. Negotiators, other supporting institutions and stakeholders should give consideration to the types of mitigation and enhancement measures that are needed, and to the support and resources needed to ensure their effective implementation.

The effectiveness of sector-specific mitigation and enhancement measures in contributing to positive sustainable development outcomes will be enhanced by the adoption of flanking measures which relate to the sustainable development process as a whole.

Securing the potential gains from multilateral trade liberalisation requires well-developed markets, effective regulatory institutions, and a stable and predictable policy framework. Where these necessary conditions are absent or weak, trade liberalisation is unlikely to be a sufficient condition for achieving sustainable development. In this respect, it is suggested that the international community can support developing and least developed countries' efforts to build a strong domestic enabling environment, which is supportive of market-led development.

Additionally, the involvement of stakeholders in the development of trade policy has an important role to play in achieving progress towards sustainable development, as recognised in the commitments made in the Doha Ministerial Declaration. Trade-offs between economic, social and environmental issues, within individual countries, internationally and globally, are a major factor of trade and sustainable development policy. Negotiators can help resolve these issues by addressing the differing stakeholder perceptions of the issues involved.

The overview study's initial evaluation of the impact on sustainable development of the Doha agenda as a whole identifies a need to improve policy coherence and integration for the pursuit of the goal of sustainable development, which negotiators can contribute to achieving. Policy coherence is a particular priority in relation to trade, since it is a cross-cutting issue for many other areas of national and international policy. This has implications for policymaking within the EU and the WTO, and between these bodies and the other multilateral and development institutions, where better integration of economic, social, environmental and development goals within the mandate of the institutions, will facilitate the implementation of the sustainable development goal. Improved policy coherence and integration has particular significance in the context of the international commitment to achieving the Millennium Development Goals, with its target date of 2015.

Finally, a potentially important component of the mitigation and enhancement package will be provision for monitoring the implementation of the Agreement as a whole. This should cover: whether all sectors of the Agreement, and the supporting mitigation and enhancement measures, are being satisfactorily implemented; and whether the measures are having their intended economic, social and environmental effects, and if not, whether additional measures are needed to deal with under-achievements and unexpected, adverse impacts.

DIFFICULTIES AND CHALLENGES ENCOUNTERED

To evaluate the potential impacts of a wide set of trade policy measures, across a full spectrum of economic, social, environmental and developmental parameters, at a global level, is a challenging task. The difficulties encountered in practice fall into the following areas:

- the consultation process
- uncertainty in the analysis
- influence of national policy responses
- availability of case studies
- understanding of development processes
- cumulative effects

The challenges posed by each are discussed below.

The consultation process

Consultation with experts and stakeholders representing different viewpoints has proved to be a vital part of the SIA process. Difficulties have been encountered in consulting as widely as would be desirable, within the restraints of time and resources, and in demonstrating to contributors that their views have been properly taken into account. Several lessons have been learned in both respects, as discussed below. Difficulties remain however, particularly in relation to the breadth of consultation and the depth of stakeholder engagement.

To be effective, consultation needs to go beyond the soliciting of views, to engage in a dialogue. At its most productive, this can become highly technical, exploring the evidence behind each stakeholder's view and its validity. For global studies of this nature, the identification of the appropriate stakeholders is particularly challenging. When the groups to be included in the consultation process have been identified, the degree of face-to-face dialogue that can take place is limited, and significant reliance must be placed on electronic media. This in turn presents difficulties, particularly with the digital divide in many lower income countries, in achieving a thorough and representative exchange of views and a full understanding of them in the time available.

It must be accepted that, even with much greater time and resources than would be realistic, consultation on world trade issues will inevitably create tensions. As has been observed in relation to the participation approach adopted in the World Bank's Poverty Reduction Strategy Papers (PRSP), 'broad inclusion can mean less effective participation and often results in too many proposals without the depth needed to inform choices. This is in part because civil society organizations' (CSO) capacity to engage on the details of policy options is often limited' (World Bank- IDA, 2003: 3). The key requirement of the consultation process is transparency in the way in which contributions are used, and a clear demonstration that they have been taken seriously.

Uncertainty

Uncertainty in the analytical assessment of potential impacts presents a major challenge. As discussed above, the European Commission will modify its negotiating position in response to the SIA findings if it considers them to be ‘robust’, but otherwise it may not. The assessment would not be robust if it failed to acknowledge uncertainties in its findings, yet at the same time, a lack of certainty may itself be interpreted as a lack of robustness in any argument for amending the Commission’s negotiating position.

Uncertainties in strategic impact assessments of this nature are inevitably high (Lee and George 2000, Partidario 2000). In many cases, the net impact will be the residual of two or more large effects in opposite directions, such that small uncertainties in impact magnitude can have a large effect on the result. Further, the magnitude, direction and significance of many potential impacts is strongly dependent on national policy responses, as discussed below, and on development processes which are themselves subject to high degrees of uncertainty.

As with all strategic assessments, monitoring of actual impacts and flexibility in policy response are key factors in dealing with uncertainty (Partidario 2000). The possibility that an impact may arise must be taken into account in the negotiation process, in such a way that policies may be amended if necessary and appropriate mitigation introduced. The aim of the SIA is to highlight areas where this may be the case.

National policy responses

In all of the SIAs conducted to date, the magnitude and significance of many of the potential sustainability impacts depends strongly on the effectiveness of existing national policy frameworks and regulatory processes. Typically, a change in a trade measure may have a beneficial economic effect in certain sectors of the economy, and negative effects on economic, social or environmental factors elsewhere. Mitigation of negative effects will in many cases depend on national decisions to share the expected economic benefit more uniformly, and corresponding action on social or environmental protection. In many developing countries the state’s regulatory capacity is weak, in terms of expertise and experience. Where regulatory agencies have been established they are often subject to ‘capture’ by political interest groups or rent-seeking by the private sector (Kirkpatrick and Parker, 2003; Parker and Kirkpatrick, 2003). In such circumstances the SIA cannot predict impacts, but only identify impacts which may occur, dependent on the capacity of government to adopt and implement appropriate mitigation (and enhancing) policy measures. This institutional capacity will be different in different countries.

Case studies

The causal chain analysis which plays a key role in the SIA methodology is a powerful tool for identifying potential impacts on a theoretical basis. In practice, empirical estimation of impacts based only on modelling of the causal linkages may fail to identify some cause and effect links, or overestimate the significance of others. Modelling is, by nature, a simplification of reality, and requires the use of

simplifying assumptions as to the complex interrelationships between the economy, the environment and the social sphere. The dynamic nature of these relations and how they change over time, is also difficult to model satisfactorily. Overcoming these limitations is strongly dependent on case studies in which actual effects have been observed in practice.

Within the time and resource constraints of the SIA itself, case studies that are undertaken must rely to a large extent on work that has already been carried out by other researchers. Obtaining reliable case study information is a key challenge for the SIA process. Reliability is itself dependent on the extent to which a study has succeeded in demonstrating a clear attribution of an observed effect to a presumed cause. Even where this is satisfactorily demonstrated, a judgement needs to be made as to the transferability of the findings of the specific case study to a different set of conditions and circumstances.

While case study information can provide a measure of impact magnitudes in certain circumstances, quantified theoretical models offer a degree of flexibility in exploring the magnitude of impacts for different scenarios. The SIAs have in particular made use of published results of CGE modelling studies, for quantifying the economic impacts of changes in tariffs. These models were originally developed for evaluating trade in goods, particularly in relation to the effects of tariffs. Their applicability to trade in services and other types of trade measure has yet to be so fully established. The availability of reliable theoretical models is also limited in respect of the causal relationships between economic factors and social or environmental impacts, and in analysing the magnitude of impacts during the process of adjustment from one equilibrium state to another.

At any point in time, an SIA has to work with the information that is available, and acknowledge corresponding uncertainties. Improvements in this respect will come from continuing efforts by researchers throughout the world, to extend the body of case study information for a full range of trade measures and their sustainability impacts.

Development processes

A key issue for the SIA studies is the long term impact of a trade measure on sustainable development processes, as opposed to its static impact on sustainable development parameters. As discussed earlier, the SIA methodology makes use of both outcome and process indicators, to allow for the distinction between the static and dynamic effects of trade policy changes, which has long been recognised in international trade analysis. CGE studies, for example, indicate that liberalisation of agriculture offers a potential economic benefit of between 0.1% and 0.3% of GDP in many countries, both developing and developed. This compares with economic growth rates of around 2% per annum in developed countries, and upwards of 6% per annum in the most successful developing countries. If a change in trade policy influences a country's growth rate, even by as little as 0.1%, it will have a considerably greater long term economic impact than the static effect. It has been observed for example that a policy reform worth one percent in static income may have an effect 50 to 150 times greater through dynamic effects, depending on initial conditions (Francois et al 1997).

This does not mean that the static impacts predicted by CGE models are insignificant in terms of the SIA, since they may entail large shifts in employment from one sector of the economy to another, or large shifts in production from one type of good to another, with consequent environmental effects. However, it does suggest that any impacts which a change in a trade measure may have on the processes which determine a country's economic growth rate, or which influence its patterns of change in economic structure and natural resource utilisation, may have a much greater long term impact on sustainable development than is indicated by static analyses.

In helping to introduce the development dimension into trade negotiations, the challenge for SIA is to incorporate a thorough understanding of growth processes and development processes, of the relationships within them of economic, social and environmental factors, and of the influence on these relationships of the full spectrum of world trade rules. The challenge is one for trade negotiators as much as for the SIA process.

Cumulative effects

The task of drawing together the results of the detailed SIAs, to indicate the impact on sustainable development of the complete set of negotiations, is a challenge that will not be picked up until the final global overview SIA. In broad terms, the overall environmental and social impact depends on the extent to which beneficial *technology effects* and *regulatory effects* counter the potentially adverse influences of *scale effects*, *structural effects* and *location effects*.

New technology offers the prospect of maintaining economic growth, while at the same time containing or reducing pollution and resource depletion. Regulation allows these environmental effects to be controlled at an acceptable level, irrespective of economic growth rates or technological development. However, structural and location effects can also influence the balance, by altering the geographical location of environmental impacts, or by changing the distribution of incomes and other qualities of life of different social groups. While economic growth or technological developments (including technology transfer) may help to rectify any adverse social impacts which may result from structural or locational effects, regulation or policy measures are generally necessary to contain them at a level that is considered acceptable. Where the impacts of scale effects are global, or those of structural or locational effects are international, such measures must themselves be designed and implemented at the international level.

The final global overview SIA will make use of the detailed SIA results, in order to estimate the likely contribution of the trade agreements to meeting the sustainable development goal. Even at this early stage, however, it can be noted that, while the agreements under the Doha agenda may contribute to achieving this goal, sustainable development depends no less strongly on other multilateral mechanisms for strengthening more fundamental aspects of global governance.

LESSONS FOR FURTHER DEVELOPMENT OF THE METHODOLOGY

Sustainability Impact Assessment (SIA) of trade has a relatively short history, having begun at the end of the 1990s. The adoption of SIA by the European Commission marked a turning point in international trade negotiations, by explicitly linking questions of trade, environment, social welfare and sustainable development both within the Community and its trading partners. While doubts have been expressed as to the Commission's motives in linking trade and the environment in this way, the adoption of SIA did symbolise the response made by the European Union to the calls made in Agenda 21 and the Rio Declaration to mainstream international social and environmental concerns into trade policy.

Not surprisingly, the use of SIA for the ex ante assessment of trade policy has stimulated much debate and criticism. (WWF 2002, SUSTRA, 2003). Many detailed lessons have been learned and are contributing to the ongoing process of refinement of the SIA methodology and its application (Lee and Kirkpatrick 2002, Kirkpatrick and Mosedale 2002, George et al 2003). Some of the key challenges that currently confront the further development of the SIA approach as applied to trade policy have been discussed in some detail in the preceding section of the paper. Here, we concentrate on just two of these issues - dealing with uncertainty and assessing impacts on growth and development processes - in order to stimulate further debate and discussion on the best way forward.

It must be accepted that high levels of uncertainty are inevitable in this type of strategic assessment. In many areas, the SIA can only identify impacts which may occur at a significant level, rather than making firm predictions. In order to deal with this, it is essential to build effective monitoring into the overall programme, and to introduce sufficient flexibility into the policy making process to be able to respond to impacts which occur in practice. In the more fully established and arguably less complex area of strategic environmental assessment, it is widely understood that 'SEA requires great adaptiveness and flexibility in its decision context, as it deals with a range of mixed forces, operating in many fronts, different societal values, and high levels of uncertainty in terms of expected outcomes' (Partidario 2000). This need for adaptive and flexible decision-making processes is a particular challenge for trade agreements, which are determined through an arduous process of negotiation. Once an agreement has been made, changes can normally be made only through re-negotiation.

Dealing with this effectively may require significant changes to the negotiation process, such that, for example, agreements become dependent on the establishment of a monitoring programme, and are subject to amendment according to the results of that programme. Such arrangements may require significant changes to WTO procedures. SIA may itself be used to make the case for such changes, which, if implemented, would greatly enhance the contribution which SIA can make to strengthening the role of international trade agreements in achieving sustainable development.

The SIA studies have shown that the potential impact on sustainable development of growth processes may be much more significant over time than the direct impact on economic, social or environmental factors. This too presents a significant challenge

for the negotiation process, as well as for the SIA process. The Doha Development Agenda was specifically agreed as a development agenda, in contrast with previous negotiating rounds with narrower, trade-oriented objectives.

Trade negotiators have traditionally based their analyses and arguments on economic efficiency and trade economics, rather than development theory and development economics. To be effective in helping to make the Doha agenda a true development agenda, and beyond that, a sustainable development agenda, there needs to be a shift in understanding in the decision-making framework. Trade policy needs to be seen as a means towards an end, and not as an end in itself, such that development theory becomes as fully debated within the negotiating chamber as is trade economics. SIA can serve as a vehicle for strengthening this debate, on the complex relationships between trade, development and environment, within the negotiating chamber and outside it.

Further information

Further information on IDPM's work on SIA and Trade is available on the website: <http://idpm.man.ac.uk/sia-trade>.

REFERENCES

- Bisset R, Flint D, Kirkpatrick C, Mitlin D and Westlake K (2003) *Sustainability Impact Assessment of Proposed WTO Negotiations: Sector Study For Environmental Services*, University of Manchester, BMT Cordah, Westlake Associates, Penicuik, Manchester
- CEC (2002) *Communication from the Commission on Impact Assessment*, COM(2002) 276, Commission of the European Communities, Brussels
- Clarke JL, Evenett SJ and Gray KR (2003) *Sustainability Impact Assessment of Proposed WTO Negotiations: Sector Study For Competition*, University of Manchester, World Trade Institute, British Institute of International and Comparative Law, Manchester, Berne, London
- DFAIT (2001) *Framework for Conducting Environmental Assessment of Trade Negotiations*, Department of Foreign Affairs and International Trade, Ottawa.
- DFAIT (2002) *Initial Environmental Assessment: Trade negotiations in the World Trade Organisation*, Department of Foreign Affairs and International Trade, Ottawa
- EC (2001) *On the Assessment of the Effects of Certain Plans and Programmes on the Environment*, Directive 2001/42/EC of the European Parliament and of the Council, European Commission, Brussels
- EC (2002) *Sustainability Impact Assessment (SIA)* Presentation of the Sustainability Impact Assessment (SIA) of the European Commission, Directorate General for Trade, European Commission, Brussels
http://europa.eu.int/comm/trade/issues/global/sia/index_en.htm
- Francois JF, Nordstrom H and Shields CR (1997) *Transition Dynamics and Trade Policy Reform in Developing Countries*, CEPR Discussion Paper 1452, Centre for Economic Policy Research, London

- George C and Kirkpatrick C (2003a) *Sustainability Impact Assessment of Proposed WTO Negotiations: Preliminary Overview of Potential Impacts of the Doha Agenda, Final Report* Institute for Development Policy and Management, University of Manchester
- George C and Kirkpatrick C (2003b) *Sustainability Impact Assessment of Proposed WTO Negotiations: Preliminary Overview of Potential Impacts of the Doha Agenda: Assessment of Individual Trade Measures*, Institute for Development Policy and Management, University of Manchester
- George C and Kirkpatrick C (2004) Putting the Doha Principles into Practice: the Role of Sustainability Impact Assessment' in Katrak H and Strange R (eds) *The WTO and Developing Countries*, Palgrave Macmillan, Basingstoke
- George C, Kirkpatrick C and Mosedale S (2003) 'Participation in European Governance Reform: The Role of Sustainability Impact Assessment', presented at Conference on 'Participation: From Tyranny to Transformation? Exploring New Approaches to Participation in Development' IDPM, University of Manchester, January.
- Government of Canada (1992) *NAFTA Canadian Environmental Review*. Ottawa.
- Government of Canada (1999) *Cabinet Directive on Environmental Assessment of Policy, Plan and Programme Proposals*, Government of Canada, Ottawa
- Jacobs, P. and Sadler, B. (eds.) (1989) *Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future* Canadian Environmental Assessment Research Council, Quebec.
- Kirkpatrick C and Mosedale S (2002) European governance reform: the role of sustainability impact assessment, EU-LDC international conference on *Improving Global Governance for Development: Issues and Instruments*, 8-10 December 2002, Chiang Mai, Thailand
- Kirkpatrick C and Parker D (2003) 'Regulatory Impact Assessment in Developing Countries' in and *Public Administration and Development*, forthcoming
- Kirkpatrick, C. and Lee, N. (1999) *WTO New Round. Sustainability Impact Assessment Study (Phase Two Report)*, IDPM, University of Manchester.
- Kirkpatrick, C. and Lee, N. (2002) *Further Development of the Methodology for a Sustainability Impact Assessment of Proposed WTO Negotiations (Final Report)*, IDPM, University of Manchester.
- Kirkpatrick, C., et al (2001). *Integrated impact assessment for sustainable development: a case study approach*, World Development, 29 (6). August.
- Kirkpatrick, C., Lee, N. and Morrissey, O. (1999) *WTO New Round: Sustainability Impact Assessment Study (Phase One Report)*, IDPM, University of Manchester.
- Maltais A, Nilsson M, Persson A and Segnestam L (2002) *Sustainability Impact Assessment of WTO Negotiations in the Major Food Crops Sector* Final Report, SEI, Stockholm
- Morrissey O and te Velde DW (2003) *Sustainability Impact Assessment of Proposed WTO Negotiations: Sector Study for Market Access*, Final Report, University of Manchester and ODI, London

Parker D and Kirkpatrick C (2003) 'Evaluating the Role of Economic Regulation in Developing Countries' in P Cook et al (eds) *Regulation , Competition and Development*. Edward Elgar: Cheltenham

Partidario M (2000) Elements of an SEA framework: improving the added value of SEA. *Environmental Impact Assessment Review* 20 647-663

SUSTRA (2003) 'Sustainability Impact Assessment' Policy Briefing Paper. Trade, Societies and Sustainable Development Network. March

USTR (1993) *The NAFTA: Report on Environmental Issues*. Office of the U.S Trade Representative, Washington, DC.

World Bank and International Development Association (2003) *Poverty Reduction Strategy Papers – Detailed Analysis of Progress in Implementation*, September, World Bank: Washington DC

WWF (2002) 'Changing the Balance of Trade' WWF Briefing on Sustainability Assessment of EU Trade Policy (www.panda.org/epo)