

SUSTAINABILITY IMPACT ASSESSMENT OF PROPOSED WTO NEGOTIATIONS

OVERALL PROJECT FINAL REPORT

FOR

SECTOR STUDIES

AGRICULTURE

DISTRIBUTION SERVICES

FORESTS

Prepared by:

Colin Kirkpatrick and Clive George
Impact Assessment Research Centre
Institute for Development Policy and Management
University of Manchester

IARC

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ABBREVIATIONS

BMVEL	Federal Ministry of Consumer Protection, Food and Agriculture
CAP	Common Agriculture Policy
CEEC	Central and Eastern European Countries
CIS	Commonwealth of Independent States
CSR	Corporate Social responsibility
DDA	Doha Development Agenda
DEFRA	Department of Environment, Food and Rural Affairs
DFID	Department for International Development
DG	Directorate General
EC	European Commission
EU	European Union
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
IAIA	International Association for Impact Assessment
ICT	Information and Communication Technology
IDPM	Institute for Development Policy and Management
IIED	International Institute for Environment and Development
LDC	Less Developed Country
LIDC	Low-income Developing Country
MAP	Mediterranean Action Plan
MDG	Millennium Development Goal
MTR	Mid-Term Report
NGO	Non-Governmental Organisation
NTM	Non-tariff-measure
OECD	Organisation for Economic Cooperation and Development
ODI	Overseas Development Institute
RSPB	Royal Society for the Protection of Birds
SIA	Sustainability Impact Assessment
SPS	Sanitary and Phytosanitary Measure
SPWP	Secondary Processed Wood Products
TBT	Technical Barriers to Trade
UN	United Nations
UNEP	United Nations Environment Programme
USA	United States of America
WTO	World Trade Organisation

EXECUTIVE SUMMARY

This report describes the results of a project that has been undertaken for the European Commission, as part of a series of studies on the development and application of sustainability impact assessment (SIA) to WTO trade negotiations. The three SIA Sector Studies described in this overall Final Report for the project cover Agriculture, Forests and Distribution Services. The principal findings of the three studies are summarised in this Executive Summary, together with recommendations for negotiators and policy-makers in the EU and other countries. The remainder of this report gives details of the SIA methodology that has been used, the consultation programme, and a fuller summary of the findings of the three studies.

Principal findings

In all three sectors (agriculture, forests and distribution services), significant impacts will be specific to the conditions in individual countries or regions. In the case of agriculture and forests, impacts vary in particular according to whether affected products are produced, exported or imported. In the case of distribution services, the main determinants are the extent to which market access was already open for these services before the Doha negotiations, and the size of the country and its potential market.

High income countries

The economic impacts for the EU are beneficial overall for all three sectors, although fairly small for agriculture and forests (except for major forest product exporters, which gain more). For distribution services the potential economic gain may be more significant for Europe as a whole, in view of the sector's contribution to the EU's growing service economy and the level of saturation of its internal distribution market. Potential adverse social impacts in Europe are most significant for agriculture, but these will be localised, and the EU has the capacity to mitigate them effectively during the period of adjustment. Environmental impacts are small and generally beneficial, arising primarily from lower agricultural production and the changing nature of subsidies. Some increase in pollution impacts may occur, from increased production of processed foods, but Europe's strong environmental regulatory system has the capacity to contain these.

In the USA and other OECD countries the impacts will be broadly similar to those in the EU, except in major net food exporters, where the economic gain from agricultural liberalisation is greater. The potential for adverse environmental effects is also greater, but can in principle be contained by strong regulatory systems.

Developing countries

Economic impacts in developing and least developed countries are mixed, with economic gains in most countries for all three sectors, but with little gain for some countries, and some experiencing losses. Least developed countries tend to benefit least for all three sectors. The countries which lose economically are mainly those which suffer erosion of their existing trade preferences for agricultural exports. For agriculture and forests the greatest economic gains occur in countries which are already significant exporters, or which have high levels of protection. In distribution services the gains occur primarily in relatively large countries whose distribution services markets are still highly protected.

Social impacts in developing countries are significant and mixed in the short to medium term, with potential for longer term gains. In the relatively few countries which lose economically the impacts are broadly negative, and all countries experience significant negative impacts on some sections of society, as well as positive effects on others, associated with the economic gains. In all cases women tend to be among the most vulnerable to adverse impacts, although opportunities also arise for higher skilled jobs and improved working conditions. In distribution services the adverse effects arise primarily from loss of employment in small distribution outlets. These effects are likely to be short to medium term, since the countries affected tend to have high growth potential, but they may be highly significant if liberalisation is rapid or not accompanied by effective social policies. In the forest sector, the main adverse social impacts occur in those countries with significant forest industries that are globally uncompetitive, and in those where the production area expands at the expense of the

livelihoods of traditional forest-dependent people. For agriculture, net food importing low income countries may experience significant adverse social impacts from higher world prices, although in the longer term the strengthening of domestic agriculture is expected to deliver significant social benefits. In agriculture exporting countries, and others where exports increase significantly, adverse social effects may also occur through acceleration of the shift towards large-scale commercial farming, marginalisation of small-scale farmers and rural to urban migration. Potential longer term social benefits will depend on the performance of other sectors of the economy.

Environmental impacts in developing countries are found to be negative overall in all three sectors, although with some positive effects. Environmental regulation in these countries tends to be insufficiently strong to counter the adverse effects automatically. In distribution services the most significant negative effects arise from increased transport and use of packaging. Adverse effects in the forest sector occur primarily in countries with weak forest governance. Negative impacts on biodiversity and soil erosion occur from unsustainable harvesting, although incremental impacts may be relatively small compared to those from the conversion of forests to agriculture associated with agricultural trade liberalisation. The agriculture study indicates further environmental impacts from greater use of agro-chemicals in some areas, and others from increased transport.

Global environmental effects

All three studies indicate an overall adverse impact on climate change, arising primarily through increased transport and greenhouse gas emissions, and on global biodiversity, due mainly to pressures for increased agricultural production in biologically sensitive areas. Both of these scale effects, which arise from increased trade and increased production, can in principle be countered by technology or regulatory effects. In itself, the trade negotiation scenario that has been assessed does not include measures which will strengthen these positive effects sufficiently to counter the adverse ones. The studies do however indicate an overall global economic gain, part of which could be directed towards parallel actions to achieve global environmental sustainability.

Impacts on the Millennium Development Goals

All of the studies have implicitly evaluated the impacts of the WTO liberalisation scenarios on the Millennium Development Goals (MDGs), through the core indicators that frame the SIA methodology. They show that liberalisation in all three sectors can contribute positively to the goal of eradicating extreme poverty and hunger (Goal 1). For forests and distribution services the effect is not considered to be significant in relation to the magnitude of the goal, but for agriculture has greater significance. This positive contribution is dependent on the success of parallel measures to avoid or minimise potentially adverse effects.

All three studies indicate beneficial effects for certain aspects of the goal of developing a global partnership for development (Goal 8). They have not identified any direct impacts on child mortality or maternal health (Goals 4 and 5), but there is expected to be a small indirect beneficial effect in all three sectors.

The overall impact on achieving environmental sustainability (Goal 7) is negative for all three studies. This is judged as being of relatively low significance, as an incremental addition to the larger effects which arise from more general mechanisms of global development. No significant impacts have been identified for the Goals 2, 3 and 6 (primary education, gender equality and empowerment through education, and combating HIV/AIDS and other major diseases).

Recommendations for negotiators and policy-makers

The SIA studies are not intended to make specific recommendations for the negotiating positions of the EU or other countries. However, negotiators in all countries are urged to take account of the impacts discussed above, in developing their positions and throughout the negotiation process.

More specific recommendations are identified in all three studies for parallel actions which may be taken to mitigate adverse impacts and enhance beneficial ones. These apply to domestic policy in the

EU and other countries, and to actions which may be taken by the EU in its development assistance programmes and in its contributions to international efforts to strengthen global governance.

Domestic policy in the EU

Adverse impacts within the EU are relatively small and localised. They occur primarily in the agriculture sector, and to a lesser extent in the forest sector.

- develop social policy and environmental policies and regulations in line with the findings of detailed research on agricultural reform and forest governance, for example as developed for CAP reforms.

Domestic policy in developing countries

In all three sectors, action needs to be taken by governments to avoid or minimise significant adverse social and environmental impacts, and to enable the potential benefits to be realised.

- Strengthen environmental and health regulations, gender policies and market-based environmental mechanisms.
- Strengthen forest governance mechanisms.
- Promote appropriate agricultural technologies and management techniques.
- Strengthen regulatory capacity, governance and social policy, particularly for the distribution and forest sectors, and control the pace of liberalisation to ensure the effectiveness of such measures. Appropriate policies include the provision of training, credit facilities and price controls on basic products.
- Provide support for business methods and ICT for domestic distribution service suppliers, and facilitate technology and skills transfer from foreign suppliers.
- Strengthen integrated national development strategies which create high value-added employment opportunities in non-agricultural sectors of the economy, to balance expected employment losses in agriculture. This should be associated with education and training policies to assist the take-up of new employment opportunities.

EU development assistance

The main impacts in forests and distribution services, and to a lesser extent in agriculture, arise from incremental additions to wider mechanisms affecting social conditions and environmental quality in developing countries. The development assistance programmes of the EU and its member states already address these issues in varying degrees. In order to counter the incremental effects of trade liberalisation in the three sectors studied, these efforts need to be strengthened in particular areas.

- Technical assistance for stronger environmental and health regulations, gender policies, market-based environmental mechanisms, forest governance mechanisms, appropriate production technologies, management techniques, technological infrastructure and relevant institutions in all three sectors.
- Support voluntary compliance and verification schemes for forestry.
- Support the provision of training and credit facilities for small enterprises, targeted to areas where new livelihood opportunities arise.
- Support for integrated national development strategies which deal effectively with declining agricultural employment, and which fully embed sustainable development priorities.
- Targeted increase in food aid and other support to LDCs and net food importing developing countries.
- Encourage EU member states to strengthen their own development assistance programmes similarly.

EU support for stronger global governance

- Harmonise product standards for agricultural and forest products in the EU, and work for international harmonisation and mutual recognition of testing, to make compliance easier for suppliers in developing countries.
- Take consistent and determined action against restrictive practices operated by dominant distribution services suppliers. Work for the development of internationally agreed principles and regulations which will benefit suppliers in developing countries.

- Contribute to strengthened international financing and support to protect against food security crises.
- Undertake intensive research on the effects of a possible unilateral or multilateral ban on log exports, for situations where control of corruption and illegal logging is not possible.
- Reinforce efforts to strengthen multilateral governance mechanisms which effectively address climate change and declining global biological diversity, both of which will otherwise deteriorate incrementally under the trade liberalisation scenario that has been assessed.

Further consultation

The final reports for the SIA studies on agriculture, forests and distribution services will contribute to refining the EU's position in ongoing WTO negotiations, and in the design of its development assistance programmes, internal policies, and other measures which may mitigate or enhance the impacts of the trade negotiations on sustainable development. In order to assist with this, comments and suggestions are invited on the questions identified below. The list is not intended to be comprehensive, and observations relating to other aspects of the studies are also welcomed.

- Is there any important evidence of which you are aware that has not been taken into account, such that incorrect conclusions may have been drawn?
- Are there any faults in the analysis which may have led to incorrect conclusions?
- Do you have any suggestions for additional mitigation and enhancement measures which have not been discussed in the reports?
- Are there any areas where you believe the EC should concentrate its efforts in its ongoing research on the effects of trade policy on sustainable development?

Comments and suggestions may be sent to the project email address:

sia-trade@man.ac.uk

1. INTRODUCTION

The project described in this report is part of a series of studies being undertaken for the European Commission, relating to the development and application of sustainability impact assessment (SIA) to WTO trade negotiations. Sector-specific SIAs have been undertaken for:

- Agriculture
- Forests
- Distribution Services

The preliminary impact assessment of WTO negotiations relating to the Doha Development Agenda (George and Kirkpatrick, 2003) identified a number of sectors for which impacts of trade negotiations on sustainable development were potentially significant. The sectors covered by this project were selected on the basis of the preliminary impact assessment, and subsequent consultation with civil society and internal discussion within the European Commission.

The sector studies have been undertaken by the following organisations:

- *Agriculture*
Overseas Development Institute (ODI), and International Institute for Environment and Development (IIED)
Director of study: Professor Oliver Morrissey
(Oliver.Morrissey@nottingham.ac.uk)
- *Forest*
Savcor Indufor Oy
Director of study: Dr. Markku Simula
(markku.simula@indufor.fi)
- *Distribution Services*
International Trade & Services Policy
Director of study: Mr Julian Arkell
(arkell@infotelecom.es)

The overall project is managed by the Impact Assessment Research Centre (IARC), Institute for Development Policy and Management, School of Environment and Development, University of Manchester, UK. The project directors are Professor Colin Kirkpatrick and Mr Clive George. Both can be contacted using the project email address (sia-trade@man.ac.uk).

All reports are posted on the dedicated website (<http://www.sia-trade.org>).

2. REFINEMENTS TO THE SIA METHODOLOGY

The SIA methodology was originally developed for the launch of the Commission's SIA programme in 1999 (Kirkpatrick, Lee and Morrissey, 1999), and was subsequently refined for application to the Doha Declaration SIA Work Programme (Kirkpatrick and Lee 2002). Further methodological refinements have been developed and adopted in the current series of sectoral studies, and are described in the Inception and Mid-Term Reports for the project (Kirkpatrick and George 2004, 2005).

2.1 Indicators

The methodology uses a small number of aggregate core indicators as a broad indication of areas to be studied, and as a framework for summarising the results. Three core indicators are used for potential outcomes in each of the three sustainable development spheres (economic, social and environmental), and a further two for sustainable development processes (equivalent to the institutional theme in the indicator framework developed by the UN Commission for Sustainable Development).

The methodology also provides for detailed indicators to be identified on the basis of the impacts predicted during the course of the study. The following table lists the second tier indicators that have been identified in each of the three studies.

Table 1. Core and Second Tier Indicators

Core Indicators	Second Tier Indicators		
	Agriculture	Forests	Distribution Services
Economic			
Real income	Levels of production, income and trade (imports and exports); consumption (prices)	Quantity and value of wood and non-wood forest products production and trade; changes in trade flows; share of harvest from areas with management plans	GDP per head; economies of scale; integration into regional and local markets; national finances; balance of payments; tax receipts; range of available goods and services; retail prices
Fixed capital formation			Flows of FDI; locally-generated investment; price of land; controls on FDI; activities of state monopolies; development of larger undertakings
Employment	Levels of employment	Changes in the level of income and employment	Overall employment levels; employment in distribution; proportions of GDP and employment in wholesale and retail sectors
Social			
Poverty	Whose employment?	Number of forest dependent people	Displacement of existing employment; job security; wage levels; incorporation of informal traders into the formal economy
Equity	Income distribution (e.g. by gender), quality of employment, land tenure and ownership	Land tenure and user rights; community relations and workers rights; employment and income distribution (e.g. by gender); participation by local communities and indigenous people	Income distribution; working hours; gender balance in employment; child labour; working conditions; safety standards; CSR policies; cultural diversity
Health and education		Health and safety of forest workers	Product labelling; health of employees; health of

Core Indicators	Second Tier Indicators		
	Agriculture	Forests	Distribution Services
			consumers; product quality and safety; safety at work; job quality and training; education and training
Environmental			
Biodiversity		Changes in the protected ecosystems or number of endangered species; changes in gene stocks; extent of harvesting from environmentally sensitive areas; maintenance of conservation forests	Impact on wildlife habitat and ecosystems
Environmental quality	Environmental stress and intensive farming (water, agri-chemical use, etc.), soil degradation	Changes in the forest area managed primarily for the protection of soil and water;	Soil erosion; use of fertilizers and pesticides; noise pollution; air quality and climate change; water and air quality; contamination of soil and groundwater
Natural resource stocks	Deforestation rate, extensive farming	Deforestation rate	Conversion of land use from agricultural to commercial; use of land and water resources; use of materials from non-renewable sources; use of renewable resources; consumption of fuel; transport mileages
Process			
Sustainable development principles	Existence of policies and international commitments	Forest governance	distribution inputs to other sectors of the economy; workers' propensity to migrate; changes in agricultural practice
Institutional capacity	Government resources and capabilities		Technology transfer; monetary and interest-rate policy

Section 4 below discusses the relationships between the significant impacts that have been identified for these core and second tier indicators, and the Millennium Development Goals. Conclusions are drawn on the extent to which the scenarios analysed contribute to or detract from each of these goals.

2.2 Presentation of results

All three studies summarise the results in impact summary tables, which present impacts at the level of second tier indicators under the core indicator headings. The approach that has been taken to the structure of the tables varies according to the different needs of the three studies.

- The Agriculture study uses a variant of the presentation proposed in the European Commission's draft SIA handbook, with separate columns for direction and magnitude, stress, extent, reversibility, probability of occurrence, responsiveness, and impact significance. The types of country affected and factors affecting significance are discussed in the text.
- The Forest study uses the table structure developed for the Preliminary Overview SIA of the WTO negotiations, in which separate columns are presented for the type of countries or products affected, the factors affecting significance, and the level of impact significance. Specific issues affecting significance are discussed in the text.

- The Distribution Services study uses a more extensive and complex set of second tier indicators, and presents only the assessed impact significance in the summary table. The contributory factors discussed in the text, and a separate table indicates the types of country likely to be affected.

All the studies use the symbols used in previous SIAs for the WTO negotiations:

- △ Positive minor significant impact
- ▽ Negative minor significant impact
- ▲ Positive major significant impact
- ▼ Negative major significant impact
- ? Uncertain impact

3. SUMMARY OF FINDINGS

3.1 Agriculture Study

The current proposals for multilateral liberalisation of trade in agricultural commodities under the Doha Agenda of the WTO offer developed and developing countries potential gains from trade. However, these benefits will not be evenly distributed across countries as some are better positioned to expand exports than others, and some countries currently benefiting from preferential access may lose as their margin of preference is reduced. From the perspective of importing countries, the effects are also likely to be mixed.

The scenario which is analysed distinguishes the three ‘pillars’ of tariff reductions (market access), export support, and domestic support measures. Developed countries are required to implement the greatest degree of liberalisation, developing countries lower liberalisation and least developed countries are not required to make any commitments to liberalise. As few developing and no least developed countries have export or domestic support, tariffs are the major domestic reforms they will make. The assessment covers six country types: the EU, other developed, least developed countries, exporting, highly protected and low-income developing countries.

As OECD countries reduce levels of domestic and export support, prices received by OECD producers will be reduced, but world prices may increase. World prices of some commodities could rise by 5-10 per cent on average, in particular wheat and other cereals, ruminants (live cattle and sheep, and beef and mutton or lamb), and oilseeds.

Principal sustainability impacts

Significant impacts will be specific to initial conditions in the country/regions producing, exporting or importing affected products.

- The overall economic impact is very likely to be positive and significant. Overall gains will include increased volumes and efficiency of production, implying higher incomes, and lower consumer prices in general. Countries that initially have high levels of protection, including developed countries, will derive significant gains: losses to some producers will be more than offset by consumer gains and increased efficiency. Countries that are globally competitive will gain from increased market access allowing an expansion of exports. Poor developing countries will benefit insofar as domestic production can be increased in response to improved incentives.
- The countries that will derive the least benefit, and may even incur losses, are those in which domestic agriculture has the least capacity to expand. These will be mostly poor developing countries and small island states.
- The overall social impact is likely to be positive. Increased incomes in agriculture are likely to benefit the poor in developing countries, and lower food prices benefit poor consumers, even if the poor do not get the largest share of the gains. There is potential to reduce poverty and inequality, especially rural-urban inequality. Although there will be producer losses in developed countries, agriculture is a relatively low share of the economy and these countries have the resources to accommodate the adjustment.
- The overall environmental impact is likely to be negative, with increased stress on natural resources and challenges for sustainable environmental development. Globally, a net increase in production is predicted, which implies that more land will be brought into use for agriculture and/or there will be increased intensity of use of agro-chemicals. Increasing the land used will encourage deforestation or using land of lower quality, with associated risks of increased soil degradation. The adverse impacts will be only partially offset by technological and resource management improvements that increase the environmental efficiency of agriculture, and by global shifts from less to more efficient producers. The net increase in volumes traded also implies increased transport, suggesting a net increase in the emission of pollutants that will only partly be offset by increases in efficiency. An important issue here is whether the increased volumes are shipped by air or by sea.

Within these overall impacts, there will be variations across countries, which can be summarised as follows:

- Developing countries that are major exporters of agricultural products, such as Argentina, Brazil and Uruguay, are unambiguous economic beneficiaries from liberalisation, although the welfare gain is small. The social impacts may be small but are also likely to be positive. Environmental impacts will depend on the product in question but are expected to be adverse, e.g. increased production may lead to forest conversion or more intensive use of chemicals.
- Developing countries with a relatively protected agricultural sector, such as India, exporting some and importing other products, face mixed impacts. The net economic impact is likely to be positive, as gains to consumers and exporters offset losses to some import-competing producers. Social impacts are mixed but are also likely to be positive overall. Small-scale farmers can respond to better incentives and increased rural employment tends to benefit the poor. Lower food prices for consumers can be a significant benefit for the poor. Environmental impacts will depend on whether liberalisation leads to a net increase in the use of agro-chemicals.
- Least Developed Countries (LDCs) typically export cash crops to developed countries under preferential access. Most of the products they export are largely unaffected by the liberalisation scenario, the major exceptions being sugar and cotton. As exporters, LDCs gain little in general from the liberalisation scenario, while global tariff reductions will result in an increasingly competitive global market for their cash crop exports. The erosion of preferences is unlikely to have a significant effect on unprocessed exports for most LDCs, as globally tariffs tend to be low on the cash crops they produce. As many LDCs are net food importers, they suffer a welfare loss from higher world prices. If domestic producers can respond to higher import prices, domestic production will expand and domestic prices may ultimately fall, implying a long-run gain to the economy. To the extent that the domestic sector expands, the social impact will be positive, favouring in particular the rural poor. As food production in LDCs tends to make low use of agro-chemicals, adverse environmental impacts will be minimal, and more than offset by savings on transport as domestic products displace imports.
- Low-income developing countries (LIDCs) are required to reduce domestic tariffs, unlike LDCs. This allows them to offset the domestic impact of increased world prices for food imports, which is a benefit to consumers, but reduces the price incentive for domestic producers. However, liberalisation should eliminate dumping of subsidised food, so domestic producers will only have to compete with imports at the higher world price. Thus, domestic producers should benefit. A second potential benefit is that the margin of preference available to LDCs with respect to LIDCs will be reduced, implying a marginal benefit in those products where LIDCs compete with LDCs. This may be a significant impact only for a few products, such as fruit and vegetables. The probable economic benefits are positive, and as the structure and forms of production in agriculture in LIDCs is similar to that in LDCs, the social impact should be positive (benefiting the poor) while the environmental impact is likely to be insignificant.
- The European Union is expected to gain economically from agricultural liberalisation as the benefits to consumers and efficiency gains offset producer losses, but the welfare gain is small. Agriculture exports in some products will increase, notably for relatively processed commodities, but imports will increase for those products that initially had high protection. There are large differences across and within EU countries: all gain from tariff liberalisation and most from reduction in support. Countries such as France are expected to lose some production of cereals. The cattle and beef sector in the EU declines. Processed food production will increase in some countries (e.g. Netherlands). Social impacts will be small but concentrated, and the EU has the resources and institutional capacity to compensate those who lose. Decreases in farm production will affect rural incomes, although the largest commercial farms with high average incomes and agri-businesses are expected to be the main losers of subsidies. No large environmental effects are expected.
- Other developed countries will in general gain from agricultural liberalisation. In the USA for example, welfare gains would be similar in relative magnitude to the EU, with variations across regions and products. Corn production is predicted to increase in all regions, soybean production is likely to fall in all regions, changes in wheat production are small and vary from declines to increases; while dairy production falls in general, there will be increases in production in some areas. Beef production would increase in some regions and decrease in others. Poultry would

increase marginally in most regions. Overall changes are small compared to normal year on year variations. The overall environmental effects may also be small, although they mask increases in agricultural production and potential negative environmental impacts in some regions and decreases in other regions. In countries such as Australia and New Zealand with very low protection, the economic gains from increased exports would be considerable, but increased production could increase environmental stress (especially in water-scarce regions).

- Not all net agriculture exporting developing countries will gain from liberalisation. Some countries will lose because they are dependent on exports of a specific commodity the price of which, or their preference margin and market share, falls (e.g. Mauritius for sugar). Others may lose because exports do not benefit and they are dependent on food imports (e.g. small island states). While West African cotton producers will benefit from the removal of OECD subsidies, they have a very small global market share and the largest gains go to countries such as Australia and Uzbekistan.

Mitigation and enhancement of potential impacts

On the basis that developed countries have the policy capacity to address and analyse issues for themselves, the study concentrates on the issues of most importance to ensuring that poorer countries are enabled to benefit. In this respect, specific attention is paid to improving product standards, essential if they are to increase exports, especially of food, and the need for effective policies to reduce the constraints on domestic agriculture.

A key factor is the extent to which agricultural employment losses associated with accelerated commercialisation of agriculture are countered by higher value-added opportunities in other sectors of the economy. This will be strongly influenced by national development strategies and associated international support.

Possible actions to mitigate potential adverse impacts include:

- strengthening environmental and health regulations and market-based environmental mechanisms;
- promotion of appropriate agricultural technologies and management techniques associated with water use, nutrient control, fertilisers, pesticides and herbicides;
- education and training policies to assist the take-up of new employment opportunities.

These may be enhanced by international measures:

- technical assistance and capacity building in support of national actions;
- increased provision of food aid and other support to LDCs and net food importing developing countries;
- strengthened international financing and support to protect against food security crises.

The study concludes with an important caveat: the effects of the liberalisation scenario on prices and market access will be marginal relative to other determinants of agricultural production and trade. The annual volatility of farm-gate prices is very high relative to the predicted price effects of liberalisation, especially in developing countries. Population growth and consumer incomes have a greater impact on trends in global demand than do changes in trade policies. Technological change (e.g. GMOs) is a more important driver of changes in production methods and environmental effects than are changes in agricultural trade policies. Changes in consumer preferences are a more important determinant of demand for niche products than are changes in trade policies. While the overall impact of trade liberalisation is likely to be a positive (marginal) impact, this occurs in a world of other factors, some of which exacerbate the trade liberalisation effects, whereas others weaken or swamp them.

3.2 Forest Study

The forest study assesses a liberalisation scenario consisting of the adoption of a zero tariff rate for forest products, compared with a base scenario of full implementation of the Uruguay agreements. The liberalisation scenario was selected for demonstration and analytical purposes, and should not be interpreted as a negotiation position. In principle, it can include immediate abolishment of tariffs for

all products and countries, or phased elimination of tariffs by products and countries over specific time periods.

Import tariffs for forest products are already low, with a relatively small share of forest products traded internationally. Further reduction of tariffs as the result of Doha negotiations is therefore unlikely to influence forest product consumption and production much in aggregate. Further, the majority of trade in forest products takes place within the EU or under other regional trade agreements, which may already apply zero or close to zero tariffs. However, there may be considerable differences between different countries in terms of their response to the changing terms of trade, with economic, environmental and social impacts that can be either positive or negative, or a combination.

At the world level, the incremental impacts in wood harvesting are likely to be small compared to the impacts due to economic growth, population growth and price development of forest products. Increased trade alone is unlikely to cause significant direct negative sustainability impacts, but it can accentuate negative trends unless appropriate forest governance systems are in place and enforced. Developing countries, which have established forest industries protected by high import tariffs, may incur considerable environmental and social costs due to downsizing of the industrial capacity and closing some industries entirely. In these countries, social costs may outweigh short-term economic gains unless adequate safeguards are adopted.

Principal sustainability impacts

- Full liberalisation would contribute to the long-term trend toward increasing importance of trade in value added products. Trade in industrial roundwood would decline.
- Due to prevalent tariff escalation in many developed countries and especially in developing countries, full trade liberalisation would lead to increased production and trade in selected countries and products.
- 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). Trade from Asia to Latin and Central America is also expected to increase (e.g. plywood exports to Mexico).
- Employment impacts vary depending on the industry and the location where the production increase or decrease would take place.
- Developing countries and also some of the transitional economies that have problems with forest governance may face considerable environmental and social costs, which could offset economic gains from further trade liberalisation unless adequate safeguards are adopted.
- Trade liberalisation would likely be a magnifier of existing policy and institutional strengths and weaknesses rather than a major driver of forest governance change as such.
- The negative impacts on biodiversity and soil erosion would in most cases result from unsustainable harvesting, which in many countries is associated with illegal logging.
- Unsustainable forest exploitation may also cause social conflicts and infringe on indigenous people's rights. However, 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.
- There would also 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 enterprise would not find it as easy to benefit from new trade opportunities.
- 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.

Affected countries and products:

- Trade liberalisation in the forest sector would benefit developed forest-rich-export-oriented countries such as Canada, the United States, Finland, Sweden and New Zealand more than

developing countries. The products that would benefit most from trade liberalisation in these countries are especially 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.
- A number of 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.
- Wood-based panels and sawnwood and some paper products would be exported increasingly. Production and exports of wooden furniture and secondary processed wood products (SPWPs) would increase in countries such as China, Malaysia, Thailand and Brazil.
- Benefits from further trade liberalisation would likely benefit the most those 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. 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.
- Pulp and paper industries and panel industries in these countries would become increasingly global, and would compete against European and North American exports especially in the Asian market. These industries would increasingly rely on forest plantations.
- Forest-rich developing countries such as Papua New Guinea and the Congo Basin countries are not in a good position to gain large benefits from trade liberalisation because of poor access to capital, inadequate infrastructure, low rates of foreign investment, shortage of skilled people and technological know. However, these countries may increase their log and sawnwood exports, and in some cases also export of panels.

Non-tariff measures:

Non-tariff measures such as standards and technical regulations as well as those promoting environmental objectives are increasing. The only NTMs that were analysed as part of the trade liberalisation scenario were reduction or elimination of log export bans and prohibitive log export taxes. The impacts of their removal would be mixed: trade in roundwood would increase and economic gains would result. The main environmental issue is the quality of forest management in areas where harvesting takes place. Totally free trade of logs in poor governance conditions is likely to have adverse environmental impacts and to promote illegal logging and trade, with negative effects in countries which have inadequate control systems and insufficient capacity to process value-added products. A ban on log exports may therefore be justified on environmental grounds where control of corruption and illegal logging is not possible. From an economic viewpoint, the best alternative would be to promote efficient wood pricing, possibly combined with domestic resource taxes to ensure that export and domestic markets are treated equally and that incentives for making the best use of sustainably produced wood would be created. Legitimate NTMs aimed at meeting environmental and safety objectives offer opportunities to access new markets or maintain existing ones, based on environmentally sound practices. However, poorer developing countries, small producers and communities are often disadvantaged in benefiting from forest certification.

Mitigation and enhancement of potential impacts

Voluntary forest certification can link trade and environmental objectives by providing financial incentives for improving forest management. Voluntary import licensing schemes can also be effective as long as the scope of agreements can be enhanced to cover more countries and wider product scope. This could be complemented by support to voluntary legal compliance schemes at national level as well as verification of legal origin, possibly requiring third party services.

If schemes such as a unilateral ban on imports of logs and wood products not verified as coming from a sustainably managed source, or from an illegal source, are seriously considered they need to be evaluated with the same intensity and resources as licensing schemes.

Technical barriers to trade have not become serious constraints in trade, but they add to production and marketing costs, and may accelerate substitution of other materials for wood. In addition to the already existing TBT and SPS Agreements, the following actions could be considered (e.g. in regional trade agreements, bilateral memoranda of understandings) to facilitate trade while ensuring compliance with safety and environmental standards:

- Increase harmonisation on standards, e.g. through the International Standards for Phytosanitary Measures and the EU's CE marking.
- Increase mutual recognition of testing systems and move more towards performance-based standards.
- Provide technical assistance and resources to help less developed countries to develop national standards and infrastructure, and introduce schemes to help especially small and medium enterprises to meet technical requirements.

Most of the trade-related measures do not address the main causes of illegal logging and unsustainable forestry, and would have to be complemented by other measures that strengthen capacity in forest management and control in developing countries. Measures which address the domestic factors influencing sustainability in the forest sector should receive a high priority.

Support is needed in general to improve forest governance, create an enabling environment for sustainable forest management, and strengthen capacity in developing and least developed countries. These measures would also help in alleviating the negative impacts of trade liberalisation and enhancing its positive impacts. Support is needed to strengthen institutions in countries with capacity constraints and governance problems but which have the necessary political will. In these cases, consideration should be given to phasing trade liberalisation over a longer period of time to ensure smooth adaptation.

As discussed in the Agriculture SIA, mitigation measures should allow for the fact that liberalisation of trade affecting edible oils, beef and associated animal feed such as soybean, cocoa, and coffee is likely to pose risks in some countries, such as Brazil, Indonesia and West African countries.

3.3 Distribution Services Study

Employment in distribution is typically the second largest sector in a national economy. Retail sales of food are generally the largest element of total retail sales, although as income per head rises the proportion of food in household expenditure declines. Consumer demand is progressively being served by the major retail firms, which build larger stores to cater mainly for urban areas. The principal global actors in the retail sector are European, while those in the wholesale and franchising sectors are primarily American. Distribution markets in OECD countries are largely saturated, with the main opportunities for expansion occurring in markets that are currently protected. Firms based in developing countries which have already expanded to neighbouring territories may be expected to do so increasingly as part of the same worldwide trend towards concentration and larger outlets in distribution.

The GATS negotiations under the Doha Development Agenda aim to liberalise market access and seek the grant of national treatment for foreign affiliates. For the temporary movement of natural persons in distribution services, governments will continue to impose terms they deem necessary. Thus the role of domestic regulation becomes paramount. The developed countries on the whole undertook higher levels of specific commitments on services in the Uruguay Round, while most developing countries took no commitments in the domain of distribution services. Full liberalisation could in principle strongly affect them.

Political and legal decisions which are taken in the context of liberalisation serve to speed up the development of the distribution services sector. In countries where the process has the potential for the fastest development, the choice for governments is how to phase in far-reaching changes, and how to mitigate the inevitable costs of adjustment which adversely affect the poorest people, whether these are consumers, shop owners or agricultural producers. Various regulatory and administrative tools

are available to mitigate the negative effects, but the required human, institutional and financial resources will not always be available, and capacity building aid will be needed in these cases.

The impact of liberalisation varies by country. Key determinants are the level of development, quality of governance, and the availability of information and communication technology (ICT) infrastructure, equipment and skills. The most singular issues include ethnic history, social networks, prevailing legal enterprise forms, privileges accorded to certain categories of citizen, land ownership and real estate prices, and state control of outlets and product prices.

Three country studies were undertaken in the present SIA, for Brazil, Kenya and Malaysia. These highlight the importance of government policies, which directly or indirectly affect employment levels, the pace of liberalisation, and the need to take account of the ethnic makeup and sensibilities in society. Some of the patterns which are likely to be seen in developing countries were also apparent in the changes which have taken place in Central and Eastern Europe and the CIS countries.

In Brazil the worldwide process of concentration in the distribution sector has been under way for some decades. The inward investment regime is liberal, and there are relatively few constraints of planning or environmental regulations to restrict the operations of major investors, several of whom are long established in the market. In Kenya the inward investment regime is also liberal, but many years of poor economic performance effectively halted the processes of concentration in the distribution sector during the 1990s. Recent growth in retailing has largely been in the micro- and small enterprise sector, and the market has been neither large enough nor secure enough to be attractive to inward investors. In Malaysia, which is rapidly industrialising, the processes of concentration in retailing are far advanced. Large distributors, both indigenous and foreign-owned, are present in the market, to such an extent that a moratorium on the development of further hypermarkets in certain areas has been imposed until 2009. Malaysia however has a highly restrictive inward investment regime, and although the restrictions have been eased in recent years, investment is still tightly screened and strict conditions are imposed. Significant further liberalisation of distribution would require Malaysia to remove or at least amend a series of regulations whose aim is to promote social cohesion and harmony. All three countries, like other developing countries, still have a majority of small and predominantly family-owned enterprises in the retail sector. In differing degrees these small outlets are under threat in all three countries from the processes of globalisation and concentration.

Other studies covering a number of other developing countries show that in greater or lesser degree very similar characteristics and developments are present in their markets also.

Interactions have been examined between distribution services liberalisation and the SIA studies for Agriculture and Forestry. Global distribution chains increasingly dominate the market for fresh fruits and vegetables, which will affect production patterns in the producer territories, and accentuate the economic, social and environmental impacts which flow from agricultural development. Modernisation of distribution can contribute, even within developing economies, to helping local produce to get to the consumer quicker, in better condition, and cheaper. At the same time, increased competition may encourage more intensive animal farming methods, more pressure for the genetic engineering of crops, and greater involvement of multinational corporations in the actual processes of production. All such consequences could have adverse implications for environmental standards, biodiversity and human and animal welfare. Some of the same basic points apply in the case of forestry. Forestry products are traded in huge quantities internationally between enterprises, but reach consumers only in the form of finished goods.

Principal sustainability impacts

- In developed countries, and the EU in particular, the impact of the liberalisation of distribution services will be largely confined to the gains from increased income arising from investment abroad in foreign affiliates.
- In developing countries, the effects will be larger where both trade liberalisation and deregulation are carried out together. Where appropriate regulatory policies are not in place,

or are poorly co-ordinated with trade liberalisation measures, the potential gains in terms of sustainable development from distribution services liberalisation are likely to be compromised.

- There may be significant local effects in developing countries, in the form of squeezing small retailers out of the market, and price and other pressures exercised on suppliers by big international retail chains.
- Smaller and poorer countries will not be significantly impacted since they are unlikely over a foreseeable timescale to attract large-scale international investments in distribution. Trade liberalisation alone is unlikely to have a significant impact on the volume of FDI flows to developing countries.
- Environmental impacts will result from increases in consumption and the volume of products produced, both domestically and abroad. With this come associated issues such as the disposal of waste and the possible need for regulations to encourage the recycling of packaging. To the extent that improved distribution increases consumption and trade, this will also increase the need for road, rail, maritime and air transport, with consequent effects on climate change. More road transport may increase urban air pollution, noise, traffic congestion and accidents.

Mitigation and enhancement of potential impacts

Governments of developing countries should consider:

- The phasing in of liberalisation and the quality of their governance and regulatory capacity. Key issues in regulation include the enforcement of operational regulations such as for labour/employment, planning, health, hygiene, safety standards, and putting pressure on large firms to improve their CSR performance.
- The mitigation of adverse effects, where resources permit, through:
 - training for the distribution sector
 - re-training for work in other sectors
 - the provision of credit
 - assistance to form cooperative groups
 - technical assistance in business methods and ICT
 - unemployment benefits
 - price controls on basic products to protect the poor

The EU should consider direct action to assist developing countries, including:

- Reduction of its own production subsidies;
- Consistent and determined action against restrictive practices operated by dominant suppliers;
- Capacity building assistance for developing countries related to the distribution sector;
- Harmonisation of standards at the EU level so as to make compliance easier for suppliers in developing countries.
- Work for the development of internationally agreed principles and regulations which will benefit suppliers in developing countries, and to encourage the provision of credit to small enterprises in the distribution sector.

4. IMPACTS ON THE MILLENNIUM DEVELOPMENT GOALS

All of the Millennium Development Goals (MDGs) are embedded within the nine core indicators and two process (or institutional) indicators that have framed the SIA studies. The findings for both the core indicators and the second tier indicators which the studies have identified may be used to evaluate the extent to which the scenarios analysed will contribute to, or detract from, achieving the MDGs. The results are shown in Table 8.

The studies show that liberalisation in all three sectors can contribute positively to the goal of eradicating extreme poverty and hunger (Goal 1). For forests and distribution services the effect is small, and is not considered to be significant in relation to the magnitude of the goal. For agriculture the effect has greater significance, but is dependent on the success of parallel measures to avoid or minimise potentially adverse effects.

All three studies indicate beneficial effects for certain aspects of the goal of developing a global partnership for development (Goal 8).

The studies have not identified any direct impacts on child mortality or maternal health (Goals 4 and 5), but it is anticipated that there will be small indirect beneficial effects in all three sectors, associated with some of the second tier indicators that have been identified.

The overall impact on achieving environmental sustainability (Goal 7) is negative for all three studies. This is judged as being of relatively low significance, as an incremental addition to the larger effects which arise from more general mechanisms of global development.

Table 8. Impacts on the Millennium Development Goals

		A	F	D
GOAL 1 ERADICATE EXTREME POVERTY AND HUNGER	TARGET 1 Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day	▲ *	-	-
	TARGET 2 Halve, between 1990 and 2015, the proportion of people who suffer from hunger	▲ *	-	-
GOAL 2 ACHIEVE UNIVERSAL PRIMARY EDUCATION	TARGET 3 Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	-	-	-
GOAL 3 PROMOTE GENDER EQUALITY AND EMPOWER WOMEN	TARGET 4 Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015	-	-	-
GOAL 4 REDUCE CHILD MORTALITY	TARGET 5 Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	△	-	-
GOAL 5 IMPROVE MATERNAL HEALTH	TARGET 6 Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	△	-	-
GOAL 6 COMBAT HIV/AIDS, MALARIA, AND OTHER DISEASES	TARGET 7 Have halted by 2015 and begun to reverse the spread of HIV/AIDS	-	-	-
	TARGET 8 Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	-	-	-
GOAL 7 ENSURE ENVIRONMENTAL SUSTAINABILITY	TARGET 9 Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	▽	▽	▽
	TARGET 10 Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation	-	-	-
	TARGET 11 Have achieved a significant improvement by 2020 in the lives of at least 100 million slum dwellers	-	-	-
GOAL 8 DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT	TARGET 12 Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system (including a commitment to good governance, development, and poverty reduction, nationally and internationally)	▲	▲	▲
	TARGET 13 Address the special needs of the least developed countries (including tariff- and quota-free access for exports of the least developed	△	-	-

		A	F	D
	countries; enhanced debt relief for heavily indebted poor countries and cancellation of official bilateral debt; and more generous official development assistance for countries committed to reducing poverty)			
	TARGET 14 Address the special needs of landlocked countries and small island developing states (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the 22nd special session of the General Assembly)	-	-	-
	TARGET 15 Deal comprehensively with the debt problems of developing countries through national and international measures to make debt sustainable in the long term	-	-	-
	TARGET 16 In cooperation with developing countries, develop and implement strategies for decent and productive work for youth	-	-	-
	TARGET 17 In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries	-	-	-
	TARGET 18 In cooperation with the private sector, make available the benefits of new technologies, especially information and communication	-	-	△

A – agriculture SIA, F – forest SIA, D – distribution services SIA

△ Positive minor significant impact

▽ Negative minor significant impact

▲ Positive major significant impact

▼ Negative major significant impact

* Impact dependent on parallel measures to avoid or minimise potential adverse effects.

5. CONSULTATION PROCESS

The consultation process is described in the project inception and mid-term reports. This section describes the consultations since the mid-term stage.

5.1 Database and website

The number of contacts included in the database has been increased from 382 at the end of the preceding phase of the programme in November 2003, to over 500 at the time of the Inception report, and 1228 at the end of March 2005. It includes stakeholder organisations and individuals in the European Community member states, other developed countries, developing countries and least developed countries. It has been used to distribute electronically an announcement of the availability of the Inception Reports on the project website and to invite comments on them. Continuing contributions in response to the final reports for the project are invited on the dedicated email address – sia-trade@man.ac.uk.

The project website has continued to be maintained and updated, at <http://www.sia-trade.org>

5.2 Contributions received

Table 2 summarises the contributions to the consultation that have been received since those reported in the Mid-Term Report, together with the contractors' responses. Tables 3, 4 and 5 present some of the more detailed contributions that have been received and summarise the responses.

Table 2. Comments and responses since end March 2004 (updated 11-Apr-05)

Correspondent	Date Received	Comment	Response
Dil Peeling, Eurogroup for Animal Welfare, Brussels	22/02/05	Responding to draft MTR Agriculture Report with particular reference to Animal Welfare.	Comments received with thanks, and taken into account in the final stage of study.
Susana Gaona Saez, COAG	01/03/05	Very interesting presentation at Agriculture MTR public meeting. Would like copy of presentation.	Presentation made available on project website (http://www.sia-trade.org/wto/Phase3B/MTRAgricultureMar05.pdf)
Bruce Ross, Managing Director, Ross Gordon Consultants SPRL	02/03/05	Comments on MTR Agriculture.	Very helpful comments – helpful in formulating details of the scenarios.
Keith Tyrell, WWF	16/03/05	Querying when forest final report ready, so can plan in schedule to respond.	Will publish shortly after end of April.
Phil Callaghan, ESDI (Environment and Sustainable Development International), Defra	17/03/05	Detailed comments received on Agriculture MTR	See separate table below for detailed response to the comments submitted.

Correspondent	Date Received	Comment	Response
Cees Vermeeren, DFR, Denmark	16/03/05	Suggestions from the side of European poultry (meat) industry re: agriculture MTR. Although poultry is not a selected product, the mid term report mentions it.	Detailed comments and response below.
		Poultry kept for meat production is housed in different systems, more or less extensive. Tariff reductions unlikely to encourage more intensive battery farming for poultry kept for the meat production in and probably also outside the EU.	Report recognizes that increased use of battery farming is only one possibility – organic and free range varieties are another possibility.
		The increasing demand of mainly boneless poultry meat will promote the import of this kind of meat from third countries that can produce at a lower price. These imports put the profitability of the European poultry meat sector under high pressure already during several years. As a result of the poultry meat sector could shrink, but also other meat sectors could be affected.	The report accepts that EU producers can anticipate greater competition from imports.
		The Brazilians are investing a lot in poultry meat production and the state of the art of the equipment is at the same level as in Europe. As they are so competitive, they are building up production merely for the export markets..	The report recognizes that Brazil is a major competitive exporter.
Lisa Rimmer, Friends of the Earth	17/03/05	Query on when final SIA is scheduled, and how process will inform negotiations.	Directed to DG Trade web links for information on negotiations process, and to consultation page of project website.
Jo Treweek, RSPB	21/03/05	Detailed comments on Agriculture MTR.	Detailed response to the comments submitted. See separate table below.
Dr Annette Seliger, Federal Ministry of Consumer Protection, Food and Agriculture, Germany	17/03/05	Detailed comments on Agriculture MTR.	Detailed response to the comments submitted. See separate table below.

Table 3. Comments from DEFRA on the Agriculture Study

Comments from DEFRA	Responses from ODI
The report could make clearer that trade can be a driver of economic growth, and note disadvantages of closed markets	The final report goes into greater depth on the economic effects of the specific scenario that is studied
The suggestion that Developing Countries and LDCs on the whole would be economically disadvantaged by rising costs seems to be out of line with other studies (e.g. World Bank)	We note that model studies require careful interpretation, but argue that developing countries benefit (but LDCs derive least direct benefit from the scenario). This is discussed more fully in the final report.
The report asserts that highly protected countries (such as the EU) have most to gain through liberalisation, however, it is important to note that some developing countries have more highly protected borders than the EU.	We note that OECD countries derive significant benefits, and also single out highly protected developing countries as a type.
The report rightly highlights the difficulties caused to ACP countries through preference erosion. However, it makes no reference to the costs imposed on other countries through preferences.	The final report gives a fuller examination of the effects of preference erosion.
Important to note that the difficult transitional period will also be somewhat alleviated through transitional assistance to the affected countries.	This is not inherent in the WTO proposals on agriculture, and not in-built in the scenario, but the final report discusses technical assistance as a mitigation and enhancement measure.
The report should consider the benefits to developing countries by addressing the issue of tariff escalation (we could not find this issue covered in the report).	The issue of tariff escalation is discussed more fully in the final report. The general principle is that lower tariffs benefit those with highest supply response.
Would like the report to see some reflection of dynamic response of producers to trade liberalisation	Dynamic response is heavily dependent on capacity for technical change and policy frameworks, and not a direct impact. These issues are discussed more fully in the final report.
The report does not take account of the less tangible benefits of trade liberalisation, such as greater certainty from the binding of tariff barriers and more flexible markets,	Insofar as these exist they are not considered likely to have significant influence in the context of the SIA.
More on gender impact.	Gender specific impacts have been discussed more fully in the final report, although evidence is lacking in some areas.
Surprised there was not more on infrastructure and social welfare.	The need for transport infrastructure is discussed in the final report. Social welfare is considered as part of social dimension.
Would welcome more on opportunities for re-training and new opportunities for displaced workers through diversification.	This is not highly significant in agriculture itself, but the final report discusses it in relation to other sectors taking up displaced agricultural labour.
There seems to be a lack of emphasis on dynamic effects in developed and developing countries. For instance, adverse impacts in the short term (eg erosion of preferences) may be the only way of moving onto a higher growth path in the longer term.	See above – dynamic effects are not direct impacts, and involve assumptions about responses. Issue of (constrained) supply response is covered.
The SIA impact matrices for country types are useful. However it would be useful to have some	The tables in final report are very different to those in MTR, to take account of this

consideration of the relative importance of each impact in terms of sustainability, and some clarification	and other considerations.
Section 9 on potential mitigation and enhancement measures is a very important part of the study. The text notes that this will be evaluated more fully in the final stage, I'm not sure what level of detail is envisaged here, however, we might want to note that it would be most useful if this was done so as to be as country/product specific as possible, to avoid too generalised conclusions.	Such detail on M&E is unfortunately not practical. We focus instead on measures/issues of most importance to different types of countries.
We would like the opportunity to comment on the draft final report	Comments are invited and will be welcome.

Table 4. Comments from RSPB on the Draft Mid-Term Agriculture Sector Report March 2005

Comments from RSPB	Response from ODI
<ul style="list-style-type: none"> The SIA assumes that there will be liberalisation under the Doha agreement, but recognises that countries are not going to liberalise fully. It uses a further liberalisation scenario comprising three parts: tariff reductions, reductions of export support and the reform of trade-related domestic support. However it does not identify a preferred policy scenario from a sustainability perspective. This should be a key outcome of the SIA. 	<ul style="list-style-type: none"> Our approach has always been to conduct an SIA of the most likely scenario, such that its impacts are understood. Issues are then identified that negotiators should take into account.
<ul style="list-style-type: none"> Impacts on biodiversity are not systematically addressed. Some examples are given, but agriculture is one of the most significant threats to biodiversity worldwide. It is not clear how the final report will address impacts on biodiversity. The importance of extensive (or organic) agriculture for biodiversity is not adequately emphasised. Will trade liberalisation drive changes in the area or intensity of production that are likely to cause damage to biodiversity? Where is this possible or likely? No mention is made of the EU's commitment to halting biodiversity decline or to general commitments under the Convention on Biological Diversity. 	<ul style="list-style-type: none"> The final report discusses biodiversity impacts more fully. The impacts of the scenario being considered are generally less than those arising from more general pressures. Report argues that consumer preferences are a more important determinant of incentives for organic farming than the trade scenario studied. This is implicit in process indicators discussed in the final report
<ul style="list-style-type: none"> Tie-ins to forestry and distribution are mentioned, but environmental services are not mentioned at all. Tie-ins to fish & fish products are limited to the fact that water pollution from rice farming can have serious consequences for shellfish & fish (p. 56).. The cross-cutting issues are apparently being considered in a parallel study (p. 5). 	<ul style="list-style-type: none"> No major linkages with the findings of the environmental services SIA were identified. The terms of reference for the study must limit its scope, which does not include fish and fish products. Cross-cutting links with the related studies for forests and distribution services are discussed in all three final reports.

Comments from RSPB	Response from ODI
<p>It is not clear how they will be addressed.</p> <ul style="list-style-type: none"> The RSPB notes that case studies on products (rice, sugar, cotton, wheat, beef & vegetables) have been chosen to cross-link to the distribution & forestry sectors (p. 43). It is important that all three final reports should cross-refer to ensure that key linkages are made. 	
<ul style="list-style-type: none"> The final report should identify how changes in trade policy positions could promote sustainable agriculture, rather than focusing purely on scenarios currently being considered and on damage limitation (as on p. 66). 	<ul style="list-style-type: none"> It is not feasible for the SIA to evaluate all negotiation options for all member states of the WTO. It can only identify the likely impacts of what the negotiations are leading towards, so that negotiators and policy makers can react accordingly.
<ul style="list-style-type: none"> Trade policy positions have not been discussed in terms of any preferred position from a sustainability perspective. 	<ul style="list-style-type: none"> See above
<ul style="list-style-type: none"> It is not clear what action the EU proposes to promote sustainable outcomes. 	<ul style="list-style-type: none"> The study is intended to provide information from which actions can then be defined.
<ul style="list-style-type: none"> Agricultural diversity is mentioned briefly but further analysis is required of the extent to which any increased prices driven by liberalisation could exacerbate trends towards monoculture (rice and wheat) and the loss of local varieties and genetic diversity. More explicit analysis of likely impacts on rural livelihoods is required. The links between development and promotion of GMOs and loss of biodiversity should be addressed. 	<ul style="list-style-type: none"> Mentioned. The evidence examined suggests that any significant impacts arise from general commercial pressures rather than the liberalisation scenario being assessed. Livelihoods are discussed more fully in the final report, but no evidence to support stronger general statements than those made. The agricultural component of WTO trade liberalisation does not have a direct impact on use of GMOs – we feel our coverage of this issue is appropriate.
<ul style="list-style-type: none"> Much more thorough analysis is required in the final report to address impacts of changed patterns in trade and consumption and knock-on effects in terms of levels of transport. There are significant environmental impacts associated with increasing air-freight of agricultural produce. To what extent will trade liberalisation influence this trend? 	<ul style="list-style-type: none"> We agree that insofar as there is an increased use of transport, there will be increased emission of pollutants. This is discussed in the final reports for this study and the distribution services SIA.
<ul style="list-style-type: none"> The current report remains largely based on the presumption that economic growth and social welfare are synonymous. 	<ul style="list-style-type: none"> The methodology draws a clear distinction between economic and social impacts. The analysis does identify causal relationships between economic and social effects, but economic growth as such is reported separately from social impacts which might result from it.

Table 5. Comments from Federal Ministry of Consumer Protection, Food and Agriculture, Germany (BMVEL) on the Agriculture Study

<p>Many of the contributions made by BMVEL relate to specific issues in the Mid-Term Report that have been taken into account in the Final Report, in some cases with substantial revisions. This is especially true of the various comments regarding tables and products (e.g. beef and sugar). The responses below refer only to comments on those issues which are still present in the Final Report.</p>	
Comments from BMVEL	Responses from ODI
Regarding the different environmental indicators, no attempt is made to balance positive and negative effects in different countries.	The SIA attempted to judge impact significance for country types in a qualitative manner. None of the impacts can be added or balanced within or across country types.
No allowance that initial price effects lead to substantial adjustments in production and thus imply smaller price effects.	The report distinguishes first order (adjustment) effects from impacts.
No time horizon is defined.	The assessment is qualitative for impact once equilibrium restored (a model definition of long run)
The study presents different country studies on developing countries in a very shortened form.	Because these are only illustrative. The full studies are appended to the final report.
For Tanzania, the problem of preference erosion is not mentioned. However, this represents an important problem for many LDCs in Africa.	The issue is discussed more fully.
Regarding the developed countries, no differentiation is made despite great differences between individual countries.	The final report identifies some of the key differences, which occur across all country types. A study with such broad coverage forfeits detail.
With regard to forests, the final report should provide more detail.	The Forestry SIA provides more detail, and interlinkages are discussed in both reports.

Table 6. Comments from WWF on the Forest Study

Comment	SAVCOR Indufor Response
Key WWF Comments (recommendations):	
Section 1	
Many of the comments on the Inception Report remain unaddressed, including number and range of case studies, analysis of NTM measures, and linkages between agriculture and forestry SIA	In-depth case studies and increasing the number of case studies would require additional resources. This issue is beyond Savcor Indufor's (as a sub-contracted party) control. Also, the case study countries have already been fixed. However, a chapter on China has been added to the Draft Final Report, and the Final Report will expand the China section using more recent information. Full analysis of NTMs in the MTR phase was not included in the TOR. The Draft Final Report has expanded both the NTM and M&E measure analysis. Linkages between Agriculture and Forestry SIA need to be strengthened in the Final Report. The Draft Final Report was prepared already in February and it made use of whatever information was available from the Agriculture SIA reports and team at that stage.
Need to further strengthen illegal logging analysis in the final report	This has been done in the Draft Final Report, and will be strengthened a little bit more in the Final Report using again more recent information, incl. E.g. WWF report on illegal logging in Bulgaria and some other information provided by WWF as well as a comprehensive report prepared for American Forest and Paper Association.
Need for a fuller examination of impacts on Russia and accession countries	Draft Final Report includes a little bit more on these countries. However, proper analysis would require case studies on these countries, which is not possible due to reasons provided above. Also, the case study countries were fixed already at an earlier stage. There is an ongoing EC-financed study on FLEGT and illegal logging in Russia, which may yield interim results in time for incorporation into the Final Report.

Section 2	
Carry out more analysis at regional level and include more case study countries	See response above. As is pointed out by WWF, to achieve this would require more resources.
Section 3	
Need for a fuller examination of impacts on Russia, new member states and current accession countries (Bulgaria and Romania)	Draft Final Report includes a little bit more on these countries. However, proper analysis would require case studies on these countries, which is not possible due to reasons provided above. There is an ongoing EC-financed study on FLEGT and illegal logging in Russia, which may yield interim results in time for incorporation into the Final Report. The Final Report will also make use on new information on illegal logging in Bulgaria. It is also important to recognize that the TOR for this SIA do not require an in depth assessment of impacts in these countries and more importantly do not require an analysis of sustainability impacts of joining the EC.
Exclusion of China is a significant omission	The case study countries were fixed at the Inception phase and China was not included. However, a section on China has been added to the Draft Final Report, and the Final Report will expand the China section making use of recent studies on wood markets in China, including WWF's own report "China's Wood Market, Trade and the Environment and case study on China in "Illegal Logging and Global Wood Markets" by Seneca Creek.
WWF contests the assertion that trade liberalisation will result in more sustainable production because it will foster increased production from plantations	The study does not make such a strong claim although it points out that wood demand is being increasingly met from plantations. Elsewhere in the study it is mentioned that the sustainability impacts of plantation development will depend on how these new plantations are established and managed.
Transfer of environmentally friendly technologies is not guaranteed by further trade liberalisation and FDI	Agreed. The study does not mention that these positive impacts are guaranteed but that they are made possible.
Section 4	
WWF proposal on structuring the M&E measures	The Draft Final Report follows more or less this proposal for presenting M & E measures
Section 5	
Full analysis on NTMs needed	Full analysis of NTMs was not included in the TOR for the MTR phase. The Draft Final Report has a more comprehensive analysis on NTMs focusing on those measures that are realistically on the WTO Doha agenda
Section 6	
Analysis on illegal logging lacks depth	The focus of the SIA on forestry is not on illegal logging. The study findings also do not automatically equate illegal logging with trade liberalisation. The underlying causes for illegal logging vary; trade liberalisation can stimulate illegal logging under some conditions. The report assesses various mitigation measures that could be used to control illegal logging and trade associated with trade liberalisation. The issue of rising stumpage prices is a difficult one. On one hand, proper pricing of wood could provide improved incentives for keeping forest land under forest use by making it a more viable land use. Higher stumpages could also provide incentives for reducing waste in wood utilization and investing in sustainable forest management. On the other hand, under poor governance conditions it may make illegal logging financially more attractive and expand the area that can be economically accessed. In the final report, some case studies will be updated using new information on illegal logging available e.g. from the Seneca Creek study.
Section 7	
Improve linkages between agriculture and forestry SIA	The Draft Final Report makes use of whatever information has been available from the Agriculture SIA study. There is still a need to strengthen the cross-sectoral analysis for the Final Report by making use of work done (and to be done) by the Agriculture SIA Team
Section 8	

WWF inputs concerning the Indonesian case study	The Final Report will make use of the provided information. However, since this study is not about finding out ways of eliminating illegal logging in Indonesia, some of the provided comments and suggestions cannot be adopted as such.
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5.3 Visits to project website

The project website has had an average of 986 ‘visits’ since the commencement of the current contract in February, 2004. Table 7 shows the number of visits to the website from February 2004 – March 2005. Table 8 shows the number of times that previous online reports have been accessed since September 2004.

Table 7. Numbers of visits to the website (February – December 2004)

Month	Feb -Mar 04	Apr-May 04	June -Jul 04	Aug-Sept 04	Oct-Nov 04	Dec0 4-Jan 05	Feb-Mar 05	Total hits	Average hits per month
Hits per month	1704	2071	2160	2124	2820	1520	1398	13,797	986

Table 8. Number of times that online reports have been accessed

Report	Sept 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	Mar 2005	Total Hits Sept 04 - Mar 05
FINAL REPORTS [Year 1, Phase 3]: May 2003								
Methodology Final	75	199	32	45				351
Executive Summary	98	79	100	34	55	47	35	448
Environmental	164	96	84	51	70	160	94	719
Market Access	161	96	106	201	218	105		887
Competition			33	25	126		57	241
Preliminary Overview	148	87	138	28	35	57	48	541
Assessment of Individual Trade Measures	96	97	241	135	30	130	184	913
INCEPTION REPORTS [Year 2, Phase 3]: April 2004								
Overall Project Report	173	72	44	59		74	83	505
Forest Study	261		26	123	71	76	156	713
Agriculture Study	112	105	159	69	27	130	63	665
Distribution Services	75		139	85	59	39		397
MID-TERM REPORTS [Year 2, Phase 3]: Jan 05								

Report	Sept 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	Mar 2005	Total Hits Sept 04 - Mar 05
Overall Project Report	1069	338	152	118	124	414	372	2587
Forest Study	2250	442	75	303	664	541	238	4513
Distribution Services	1212	324	195	86	279	877	223	3196
Agriculture Study						2358	1596	3954

5.4 Contributions to Policy Debate

The contractor has continued to engage in dissemination of the research findings of the SIA-Trade programme and the wider policy debate on issues relating to sustainability impact assessment. Activities include:

- presentation at International Conference on Trade, Environment and Development, Amsterdam, 1-2 November 2004
- organisation of a side-event on SIA at the Annual Conference of the Economic Research Forum, Beirut, 14-16 December 2004
- presentation at World Bank / DFID Workshop on Development and the Environment, Beijing, 21-22 March 2005
- participation in UNEP/MAP Workshop on the Mediterranean Strategy for Sustainable Development, Rome, 5-7 April 2005
- participation in Euro-Mediterranean Economic Transition Conference, Brussels, 11-12 April 2005
- presentation and panel discussion at French Ministry of Ecology and Sustainable Development Seminar on the Impact of Trade Agreements on Sustainable Development, Paris, 14 April 2005

Planned activities include:

- joint organisation of a plenary session on ‘Trade and Sustainability Impact Assessment’ at the annual conference of the International Association of Impact Assessment in Boston, May, 2005
- joint organisation of a session on ‘Developing Principles for Biodiversity Impact Assessment of Trade’ at the annual conference of the International Association of Impact Assessment in Boston, May 2005.
- organisation of an international conference on Impact Assessment for a New Europe and Beyond, University of Manchester, 15-17 June 2005 (<http://www.sustainability.at/easy/>).

Recent academic and other publications resulting from the project are listed in the Mid-Term report.

5.5 SIA Newsletter

Two issues of the *SIA Trade Newsletter* have been produced and distributed, presenting the latest developments and activities in the field of trade and sustainability impact analysis. Further issues are planned, and will be posted on the SIA-Trade website.

5.5 Further consultation

The final reports for the SIA studies on agriculture, forests and distribution services will contribute to refining the EU's position in ongoing WTO negotiations, and in the design of its development assistance programmes, internal policies, and other measures which may mitigate or enhance the impacts of the trade negotiations on sustainable development. In order to assist with this, comments and suggestions are invited on the questions identified below. The list is not intended to be comprehensive, and observations relating to other aspects of the studies are also welcomed.

- Is there any important evidence of which you are aware that has not been taken into account, such that incorrect conclusions may have been drawn?
- Are there any faults in the analysis which may have led to incorrect conclusions?
- Do you have any suggestions for additional mitigation and enhancement measures which have not been discussed in the reports?
- Are there any areas where you believe the EC should concentrate its efforts in its ongoing research on the effects of trade policy on sustainable development?

Comments and suggestions may be sent to the project email address:

sia-trade@man.ac.uk

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