

**TRADE SUSTAINABILITY IMPACT ASSESSMENT (SIA)  
OF THE ASSOCIATION AGREEMENT UNDER  
NEGOTIATION BETWEEN THE EUROPEAN  
COMMUNITY AND MERCOSUR**

**FINAL OVERVIEW TRADE SIA EU-MERCOSUR**

**FINAL REPORT**

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## ABBREVIATIONS

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|       |  |
|-------|--|
| AMS   | Aggregate Measure of Support                                   |
| CAP   | Common Agricultural Policy                                     |
| CGE   | Computable General Equilibrium                                 |
| CCA   | Causal chain analysis  |
| CIFOR | Center for International Forestry Research                     |
| CGE   | Computable General Equilibrium                                 |
| CoC   | Chain of Custody   |
| CSR   | Corporate Social Responsibility                                |
| CTA   | Technical Centre for Agricultural and Rural Cooperation ACP-EU |
| DDA   | Doha Development Agenda  |
| DFID  | UK Department for International Development                    |
| DG    | Directorate General  |
| EBA   | Everything But Arms  |
| EC    | European Commission  |
| EFTA  | European Free Trade Area                                       |
| EU    | European Union   |
| ERRT  | European Retail Round Table                                    |
| FAO   | Food and Agricultural Organization of the United Nations       |
| FDA   | Food and Drugs Administration                                  |
| FDI   | Foreign Direct Investment                                      |
| FERN  | Forests and the European Union Resource Network                |
| FLEGT | Forest law Enforcement, Governance and Trade                   |
| FOB   | Free On Board  |
| FTAA  | Free Trade Area of the Americas                                |
| GATS  | General Agreement on Trade in Services                         |
| GATT  | General Agreement on Tariffs and Trade                         |
| GDP   | Gross Domestic Product   |
| GNP   | Gross National Product   |
| GFT   | Government Financial Transfers                                 |
| GFW   | Global Forest Watch  |
| GTAP  | Global Trade and Protection                                    |
| HPDC  | Highly Protected Developing Country                            |
| HACCP | Hazard Analysis Critical Control Point                         |
| IDPM  | Institute for Development Policy and Management                |
| IARC  | Impact Assessment Research Centre                              |
| IEEP  | Institute for European Environmental Policy                    |
| IISD  | International Institute for Sustainable Development            |

|         |  |
|---------|--|
| ICTSD   | International Centre for Trade and Sustainable Development |
| IFF     | Intergovernmental Forum on Forests                         |
| IFPRI   | International Food Policy Research Institute               |
| IPF     | Intergovernmental Panel on Forests                         |
| ITC     | International Trade Commission                             |
| ITTA    | International Tropical Timber Agreement                    |
| ITTO    | International Tropical Timber Organisation                 |
| IMF     | International Monetary Fund                                |
| LDC     | Least Developed Country                                    |
| LIDC    | Low Income Developing Country                              |
| M and E | Mitigation and Enhancement                                 |
| MFN     | Most-favoured-nation                                       |
| MOU     | Memorandum of Understanding                                |
| MEAs    | Multilateral Environmental Agreements                      |
| MEDC    | Major Exporting Developing Country                         |
| MENA    | Middle East and North Africa                               |
| MFA     | Multifibre Arrangement                                     |
| MFN     | Most-favoured-nation                                       |
| MOU     | Memorandum of Understanding                                |
| NAFTA   | North American Free Trade Agreement                        |
| NAMA    | Non-agricultural Market Access                             |
| NGOs    | Non-governmental Organizations                             |
| NSDS    | National Sustainable Development Strategies                |
| NTB     | Non-Tariff Barriers  |
| NTM     | Non-Tariff Measure   |
| ODC     | Other Developed Country                                    |
| ODI     | Overseas Development Institute                             |
| OECD    | Organization for Economic Co-operation and Development     |
| PPP     | Public Private Partnerships                                |
| RA      | Representative Agent                                       |
| ROO     | Rules of Origin  |
| SADC    | Southern African Development Community                     |
| SCM     | Subsidies and Countervailing Measures                      |
| S & D   | Special and Differential                                   |
| SD      | Sustainable Development                                    |
| SIA     | Sustainability Impact Analysis                             |
| SME     | Small and Medium-sized Enterprises                         |
| SPS     | Sanitary and Phytosanitary Measures                        |
| SSA     | Sub-Saharan Africa   |

|        |  |
|--------|--|
| TBT    | Technical Barriers to Trade                              |
| TD/BU  | Top Down/Bottom Up                                       |
| TOR    | Terms of Reference                                       |
| TRIPS  | Trade-Related Aspects of Intellectual Property Rights    |
| TRQ    | Tariff Rate Quota  |
| UN     | United Nations   |
| UNCED  | United Nations Conference on Environment and Development |
| UNCTAD | United Nations Conference on Trade and Development       |
| UNDESA | UN Department of Economic and Social Affairs             |
| UNDP   | United Nations Development Programme                     |
| UNEP   | United Nations Environment Programme                     |
| US     | United States of America                                 |
| USAID  | United States Agency for International Development       |
| USDA   | United States Department of Agriculture                  |
| WHO    | World Health Organization                                |
| WTO    | World Trade Organization                                 |
| WWF    | World Wide Fund for Nature                               |

## EXECUTIVE SUMMARY

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In accordance with the terms of reference and the EC's Trade SIA methodology, this report provides an in-depth analysis of the potential impacts of successful completion of ongoing negotiations for an Association Agreement between the European Union and the Mercosur member countries. Using the SIA methodology, the study draws on quantitative and qualitative evidence to assess the potential economic, social and environmental impacts of trade liberalisation of EU Mercosur trade in goods and services. The study also assesses the potential impacts of liberalisation in three key horizontal issues, namely, investment, trade facilitation and government procurement.

The study draws on the results of a comprehensive computable general equilibrium (CGE) model which is used to simulate the effects of implementing a full liberalisation scenario. For the SIA analysis the study uses causal chain analysis, wherein evidence on the cause and effect links between trade liberalisation, economic activity and social and environmental changes are used to assess potential sustainability impacts, in terms of core economic, social and environmental indicators and process indicators.

This Final Overview Report combines, and where necessary, updates, the results of the preliminary Overview SIA that was completed in November 2007, together with the results of the five sector SIA studies (agriculture, forests, automobiles, financial services and trade facilitation) that have been prepared as part of the EU Mercosur SIA programme along with the findings of the beef and ethanol case studies that were carried out in the agriculture SIA.

The purpose of the SIA studies is to inform trade negotiators and other interested parties on the potential economic, social and environmental impacts of the trade negotiations, in both the EU and Mercosur. The SIA studies are also intended to provide guidelines to help in the design of possible preventative, mitigation and enhancement measures which make it possible to maximise the positive impact and to reduce the negative impact of the trade negotiations in question.

### Summary of Overview Report Sustainability Impacts

*The findings made in this report represent the views of the consultants and should not be interpreted as being endorsed by the European Commission. They are only intended to form a basis for discussions among stakeholders.*

For the EU, the assessment finds that the economic impacts are likely to be positive overall. The CGE model estimates that full liberalisation would give an economic welfare gain of the order of 0.1% of GDP. The static economic welfare gains result from the resource reallocation effects that occur in response to trade liberalisation induced relative price shifts. The manufacturing and services sectors are predicted to gain relative to agriculture. The effect on agriculture is adverse in the short term, however in the long term, as sectoral resources shift to more efficient allocations, the welfare losses in agriculture are offset by the gains in other sectors of the economy.

Employment in agriculture is expected to be negatively affected during the adjustment period, reinforcing the underlying downward trend in baseline agricultural sector employment. If not mitigated by appropriate support programmes or other policy

measures, this adjustment process may lead to adverse social impacts in particular localities and sub-sectors,

Both positive and negative environmental impacts will arise, associated with the production changes. These will be localised and are expected to be small, and not significant in the context of an effective regulatory regime. Efforts to reduce EU greenhouse gas emissions through the use of biofuels to replace fossil fuels may be expected to benefit from a reduction of barriers to imports of Mercosur ethanol provided that these are sustainably produced. The opposite could occur if associated land use changes in Mercosur were allowed to accelerate deforestation.

For the Mercosur countries, the CGE model predicts that full liberalisation would lead to static economic welfare gains in each country. The sectoral changes indicated by the model are generally in the opposite direction to those in the EU. The agricultural and processed foods sectors are expected to benefit from the increased export opportunities in the EU market. For the manufacturing sector, the increased exposure to European competition is expected to necessitate a period of adjustment for Mercosur producers. Similar adjustment costs will arise in the services sector, particularly for financial services, utilities and business services. The magnitude and duration of these adjustment costs will be affected by the mitigation measures that are taken.

Economic gains are expected to increase over time in the Mercosur countries. In the long run, the exposure to competition is predicted to induce efficiency and productivity gains, particularly in manufacturing and services, while the opportunities for new investment and prospects of higher rates of return are likely to increase foreign and domestic investment, depending on the other factors which affect the investment climate. The sequencing of liberalisation and the phasing for the implementation of complementary supply side measures will affect the size of the longer term economic gains attributable to EU Mercosur trade liberalisation.

The social impacts in Mercosur are expected to be mixed. In the longer term, employment and income gains are predicted. The potential negative impacts include employment losses in parts of the manufacturing sector, and non-adherence to decent work standards in some parts of the agricultural economy, if production and employment increase as a result of EU Mercosur trade liberalisation. Gender impacts are expected to be mixed and relatively small.

Both positive and negative environmental impacts are expected. The main impacts that have been identified include: opportunities for improved environmental services, risk of increased water pollution, and an adverse impact on biodiversity. Less significant impacts that are identified include potential degradation of resource stocks of water and soils, air pollution, spread of plant diseases and threats to animal welfare.

The expected impacts of the proposed trade agreement on climate change are mixed. In addition to the effects of biofuel liberalisation, the economic modelling studies indicate a small reduction in greenhouse gas emissions from the re-allocation of production between Mercosur and the EU, countered by a larger increase due to increased international transport.



The global economic sector crisis is expected to lead to a contraction in world trade, although the magnitude of this decline is at yet uncertain. The worsening in global economic conditions can be expected to have an adverse impact on EU-Mercosur trade and investment flows and thereby moderate the magnitude of the (positive and negative) sustainability impacts of trade liberalisation.

## **Summary of the Sector Reports Sustainability Impacts**

The Overview Report incorporates the main findings of the five sector SIA studies that were undertaken in Phase 1 and Phase 2. The sector report sustainability impacts are summarised below:

### Automotives

For the EU, the economic impacts are expected to be beneficial in terms of output and employment. Foreign investment flows from Europe to the Mercosur automotive sector will be encouraged by the liberalisation of trade and investment, and any accompanying reduction in trade facilitation costs. The distribution of gains from increased output and employment are likely to favour the EU10 countries with automobile production capacity. The investment benefits will accrue to those EU15 countries that have made significant investments in the Mercosur automobile sector over several decades. The liberalisation of automobile sector trade is not expected to have significant social impacts in the EU. The potential environmental impacts in the EU would be related to any change in production that results from the liberalisation of trade with Mercosur, but given the enforcement of environmental standards and controls within the EU, these additional environmental pressures are unlikely to be significant.

For Mercosur, the economic impacts of trade liberalisation in the automotive sector are also expected to be positive, as increased openness improves the international competitiveness of automobile manufacturing and parts production in Brazil and Argentina. There may be short term pressure on domestic producers and employment, particularly in the parts sector, as the sector adjusts to the challenge of competing against imported parts for use in domestic assembly plants. However, with the continued inflow of FDI, the share of exports in total production is expected to increase. Export growth and growth in the domestic market are likely to allow for the continued expansion of output and employment, although this is partly dependent on the continuation of a stable and predictable macroeconomic environment and investment climate.

The potential social impacts of automobile sector liberalisation are not expected to be significant. The process of product redesign and upgrading induced by trade liberalisation may contribute positively in terms of increasing the skills endowment of the labour force. The environmental impacts will be related to the changes in production levels, changes in vehicle use, changes in trade, and changes in technology that result from trade liberalisation. Environmental quality can be expected to decline with increased production and vehicle use increasing air pollution. Over time, the magnitude of this scale effect is likely to be reduced as cleaner technology is incorporated into production methods and vehicle design. As is the case of social impacts, the incremental environmental impacts attributable to trade liberalisation in the automotive sector is unlikely to be significant.

## Agriculture

For the EU, the liberalisation of agricultural trade with Mercosur is expected to confirm the downward trend in baseline output and employment, with the principal long term welfare impact coming from the dynamic effects of switching resources to more competitive sectors of the economy. There are likely to be short to medium term social adjustment costs as rural labour resources reallocate to non-agricultural sectors. Environmental impacts are not expected to be significant. Increased imports from Mercosur may encourage greater intensity of production in order to increase yields, but the overall effect on soil and water resources is expected to be small and beneficial. Increased imports of animal products may heighten public concerns relating to European animal welfare standards. Less significant impacts that are identified include potential for the spread of plant diseases.

For Mercosur, the overall economic impacts of increased trade between the EU and Mercosur is expected to be positive. Employment in this sector is expected to rise proportionally with output in the short run. However, there is some risk of reduced employment in the long run as incentives for mechanisation may result in demand for higher skill levels and lower agricultural employment. The link is through the increased demand for biofuels which adds to the trend towards large scale production which in turn allows scale economies and increased mechanisation. Increased trade between the EU and Mercosur is expected to lead to some positive social impacts and some that are negative, for example, in so far as a changing pattern of agricultural production affects land tenure and the welfare of indigenous farmers and hired labour. Agricultural production is expected to rise significantly in all the Mercosur countries, placing pressure on both land and water. Expansion could also impact significantly on deforestation, contributing to a reduction in biodiversity as production expands, particularly in the Amazon and Cerrado regions.

## Forestry

Liberalisation of trade is shown in the economic model to have a limited effect on trade of timber and timber products between the two markets. This reflects the low or non-existent level of existing tariffs, which principally affect exports from the EU to Mercosur. No significant direct impacts are predicted for European countries. The main consequences of trade liberalisation are anticipated to be internal redistribution within Mercosur, with Brazil expanding its output of both timber and timber products.

Most adverse social, local economic and environmental impacts of forestry operations and secondary processing arise under existing market conditions; and are exacerbated by weak and ineffective governance, resulting in illegal logging of natural forest. However, the expansion of industrial plantations, while reducing primary impacts, can also adversely affect landscape, biodiversity and local economic activities of rural communities. Secondary processing of wood, pulp and paper are major industrial processes which can have significant adverse social, environmental and local economic effects if they are not designed and operated with full mitigating measures. At the same time these processes add value and contribute significantly to national economies. Trade liberalisation will support this expansion by giving greater access to South America for European plant and equipment.

International involvement through development cooperation and the activities of international forest companies has a major impact on forestry development in several Mercosur countries and particularly Uruguay. There is a need to ensure that strategic development plans promoted by governments and supported by international donors and financial institutions are fully assessed at the outset in terms of their potential environmental social and local economic impacts rather than waiting until critical land use decisions need to be made on the siting of infrastructure and major processing plant.

### Financial Services

The static welfare gain from financial services liberalisation is small in both Mercosur and the EU, but other effects are potentially much larger. EU providers of financial services stand to gain from increased market penetration, while in the Mercosur countries the main economic benefits are expected to come from long term dynamic effects on economic growth. This is expected to make a significant long term contribution to reducing poverty. Social impacts in the EU are small but also beneficial.

A short term decline in domestic financial services output is expected in all the Mercosur countries, but except in Paraguay the impact is small and likely to be countered in the longer term as domestic providers become more competitive. The decline in output projected for Paraguay is subject to a high degree of uncertainty, but could be large enough to be of major significance to the small domestic financial services industry.

The principal environmental impact of financial services liberalisation comes indirectly from the expected increase in economic growth. This would intensify the need for changes in unsustainable patterns of consumption and production. No significant direct environmental impacts are identified in either direction.

Financial services liberalisation can have either a beneficial or an adverse effect on risks of financial instability, depending on the effectiveness of regulatory mechanisms. The potential benefits of liberalisation, however, could be outweighed if the risk of instability was allowed to rise. Effective mitigation measures may therefore be necessary in order to avoid major adverse effects in all the Mercosur countries and, to a lesser extent, in the EU.

### Trade Facilitation

The static efficiency effects of the proposed trade facilitation measures on economic welfare are small, but the longer term dynamic effects are potentially much larger. These gains are available primarily in the Mercosur countries, which have made less progress than the EU in implementing efficient border procedures. The EU will also benefit economically, mainly through improved performance of specific export industries and reduced costs of its own border procedures. The long term gain will be smaller than in Mercosur, since EU-Mercosur trade is a smaller proportion of its total trade.

These benefits and the actions needed to deliver them are those which would apply to unilateral action by both parties, primarily in Mercosur. The additional benefits that would accrue from including trade facilitation measures within the trade agreement are dependent on the negotiation of reciprocal commitments and on the magnitude and effectiveness of technical assistance.

The principal impact on poverty is expected to come in the longer term in Mercosur, from accelerated economic growth, and is likely to be significantly beneficial. However, the acceleration of economic growth to which a full trade facilitation programme would contribute may also have adverse equity effects, similar to those discussed in the Overview SIA for agricultural liberalisation. In the shorter term the Mercosur countries are expected to gain a significant increase in tax revenues, enabling increased expenditure on issues such as health and education.

The changes in trade flows that would be stimulated by a fully effective trade facilitation programme are estimated to be similar in magnitude to those arising from agricultural trade liberalisation. It should be noted that both the economic and the environmental impacts of the trade facilitation measures occur indirectly through the further specialisation of Mercosur countries in the agricultural sector. The principal environmental impacts of concern are those associated with increased agricultural exports from Mercosur to the EU. A rise in agricultural production in Mercosur of this magnitude could have impacts on biodiversity and natural resource stocks of potentially major adverse significance, in both the short term and the long term.

The effects of trade facilitation measures on sustainable development principles are assessed as being neutral, except in so far as they influence long term economic growth. Growth is in principle highly consistent with goals of socio-economic transformation and poverty reduction, but will at the same time intensify the need for change in unsustainable patterns of consumption and production in both Mercosur and the EU.

## **Preventative, Mitigation and Enhancement Measures and Policy Recommendations**

*As for the findings, the recommendations made in this report represent the views of the consultants and should not be interpreted as being endorsed by the European Commission. Their practical implications will need to be examined in depth in order to evaluate their appropriateness and feasibility.*

The aim of preventative, mitigation and enhancement proposals is to define a package of initiatives to yield the best possible outcome, not just in terms of trade liberalisation and economic growth but also of other components of sustainable development. The measures are intended to maximise the positive impacts of the trade negotiations in question, and to prevent or reduce any potential negative impacts.

A number of proposals for mitigation and enhancement measures have been put forward in the report, and are grouped in three categories: (1) measures that relate to the trade pillar of the EU Mercosur Association Agreement. (2) measures that relate to the political and cooperation pillars (3) measures that relate to domestic policy.

### **(1) Trade Pillar Measures**

- Establish a timetable for phased reduction in tariff and NTM reductions to allow for an orderly adjustment period in sectors that are expected to experience significant adjustment costs. In Mercosur, these sectors are likely to include, motor vehicles and parts, transport equipment, textiles and clothing, machinery, financial services and distribution and retailing. In the EU, the main adjustment

costs will occur in agriculture. The transition periods should be agreed after a detailed assessment of the restructuring needs and required time period for each (sub) sector.

- Timing of reductions in tariffs and quota restrictions for environmentally/biodiversity sensitive products to be conditional on compliance with a set of sustainability criteria.
- Agree a programme of trade facilitation measures to improve the trade environment aimed at reducing costs of doing business:
  - (i) establish a joint Customs and Trade Facilitation committee
  - (ii) de facto harmonisation of customs procedures through adoption of international standards.
  - (iii) improve single window systems for both export and import, with particular attention to countries with less developed systems
  - (iv) extend the use of risk management techniques
  - (v) provide up-to-date information on all trade and customs procedures from a single source
- Include a Trade and Sustainable Development Chapter in the Trade Pillar of the Association Agreement

The proposed EU Mercosur Association Agreement provides an opportunity to integrate trade policy goals with wider sustainable development objectives, particularly environmental and social issues. The proposed Trade and Sustainable Development Chapter could include clauses to address specific social and environmental concerns relating to the proposed Agreement:

- reference to the requirement that both parties commit to the effective implementation of core labour standards and other basic decent work components
- statement that both parties will ratify the ILO standards concerned.
- establishment of a EU Mercosur Trade SIA Forum with responsibility for monitoring the social and environmental impacts of the EU Mercosur Agreement. The body would provide for regular consultation with civil society in the EU and Mercosur, and would be required to report regularly, in a transparent manner, to high-level EU Mercosur Association Agreement meetings.
- Voluntary or mandatory certification for forest products and biofuels
- Commitment to multilateral agreements, such as the Kyoto Protocol
- EU Mercosur cooperation on the development of measures to reduce particulate and CO<sub>2</sub> emissions from automobiles, focusing particularly on technology development and transfer opportunities between Mercosur and EU in the areas of biofuels, engine design and emission control technology.

- Joint committee to report on the environmental consequences of increased production of biofuels in the EU and Mercosur
- EU Mercosur cooperation in promoting trade in environmental goods and services
- Commitment by both parties to the adoption and implementation of effective environmental regulation measures.

## (2) Cooperation and Political Pillar Measures

Cooperation between the EU and Mercosur is enshrined in the Interregional Framework Cooperation Agreement signed in December 1995 in Madrid, which entered into force in July 1999. In contrast to the earlier phase of EU Mercosur development cooperation which was almost entirely project based, the EU's current programme covering the period 2007 – 2013 takes a more strategic approach and is intended to support the conclusion and implementation of the EU Mercosur Association Agreement, particularly the trade pillar.

It is proposed that the EC, in cooperation with the Mercosur partners, should consider the opportunities for achieving greater synergies between the Interregional Framework Cooperation Agreement and the proposed Association Agreement, including measures in the cooperation and political pillars that could enhance, mitigate and/or prevent potential positive and negative impacts of the trade negotiations.

The proposed measures are as follows:

- (1) support for regulatory policy capacity building in Mercosur, particularly in environmental regulation, public utility regulation (water and electricity sub-sectors) and financial sector regulation. This support should be based on a prior assessment of the capacity of the existing policy making and regulatory framework to respond to predicted changes. The Mercosur countries should be pro-active in identifying their technical assistance and expertise needs that can be best met through the EC Mercosur cooperation programme.
- (2) Support for capacity building in regulatory and public policy analysis and design, through the provision of training in (Regulatory) Impact Assessment, drawing on the EC's extensive experience in the use of IA methods for better regulation design.
- (3) support for the establishment of a EU Mercosur Automotive Sector Forum with the aim of strengthening public-private cooperation. The members of the Forum would represent the EC, Mercosur authorities, employers and labour.
- (4) support for a detailed impact assessment of the impact on the international competitiveness of the automotive sector in both regions of replacing of regional-level regulations by international automobile technical standards (UN-ECE).
- (5) Provision of development assistance including education and training on sustainable forestry practices and alternative skills.

(6) Technical assistance measures and cooperation in order to strengthen institutions, the legislative framework and enforcement in relation to environmental protection and safeguarding areas of natural forest.

(7) Strengthen systems to help Mercosur exporters to comply with REACH requirements, particularly by improving the provision of information and technical assistance through the WTO enquiry point and the European Chemicals Agency

(8) Technical support and training for the development of improved systems for evaluating the suitability of collateral offered by SMEs

(9) Joint EU-Mercosur development of guidance on implementation of the Basel principles

(10) Implementation of the European Commission's Economic and Financial Committee (EFC) recommendations for strengthening international and cross-sector co-operation, particularly in monitoring cross-border financial institutions in the context of EU Mercosur cross border cooperation.

### (3) Domestic Measures

In addition to the measures proposed for inclusion in the EU Mercosur Association Agreement, the EU and Mercosur member state authorities can exercise domestic policy autonomy to implement measures that would either enhance the positive impacts of the EU Mercosur Association Agreement, or prevent or reduce the potential negative impacts. This section identifies a number of areas where the SIA analysis found that domestic policy interventions could be expected to be particularly advantageous. These are:

(1) Strengthen environmental regulation in Mercosur countries to offset adverse impacts of forest conversion and expansion in agricultural production, while exploiting potential gains.

(2) Fuller implementation in both Mercosur and the EU of the Basel Core Principles for Effective Banking Supervision, and implementation of any revisions to the Basel Principles that may be agreed in response to the current global crisis.

(3) Research in both regions into the barriers to trade facilitation reforms beyond those to which commitments are made in the trade agreement.

## Overall Conclusions

The economic impacts of the proposed EU-Mercosur free trade area are likely to be positive overall in both Mercosur and the EU. The projected economic welfare gain is fairly small (except in Paraguay), but additional gains can be expected from dynamic effects whereby productivity is enhanced through greater competition and economies of scale.

These gains could be accompanied by increased environmental pressures, unless countered by appropriate mitigation measures. The main environmental impact of concern is a potentially significant loss of global biodiversity from increased agricultural

production in Mercosur. The expected economic gain could also give rise to adverse social adjustment costs, particularly in Mercosur, if not mitigated by appropriate policy measures.

This final overview SIA and its accompanying sector studies have put forward a series of recommendations for preventing or mitigating the potentially adverse effects of the proposed EU-Mercosur free trade area and enhancing the beneficial ones.

### **Further consultation**

The results of the SIA will contribute to refining the EU's position in the ongoing negotiations and in the design of its development assistance programmes. They are also expected to be taken into account by policy-makers in the Mercosur countries. Comments and suggestions on all aspects of the SIA report will be greatly appreciated. They should be sent to the project email address:

sia-trade@man.ac.uk



# 1. INTRODUCTION

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## 1.1 The EU Trade SIA Programme

The European Commission has been engaged in conducting Trade SIAs as part of its trade policy-making process since 1999. The purpose of the Trade SIA programme is to inform trade negotiators and other interested parties on the potential economic, social and environmental impacts of the EU's trade negotiations, in both the EU and Europe's trading partners.

The European Commission has defined the objective of its SIA studies (European Commission, 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 mitigation and enhancement 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 Trade SIA programme applies a standard approach in conducting the assessment. This approach has two complementary elements:

*Trade sustainability impact assessment*, comprising a balanced and integrated assessment of potential economic, social and environmental impacts.

*Consultation process*, whereby consultation with, and dissemination of results to, partners and key stakeholders is an integral part of the assessment process. Consultation and transparency are essential processes for ensuring the credibility and legitimacy of the Trade SIA.

The EC's Trade SIA Programme uses a standard methodological framework, which is summarised in section 1.2. The modifications to this generic framework that have been introduced to meet the particular conditions and characteristics of the EU-Mercosur trade negotiations are also described in the next section.

## 1.2 The SIA Trade Methodology

Sustainability Impact Assessment is increasingly being used as a method of assessing the potential impact of policies, programmes and plans in terms of the goal of sustainable development. SIA is an integrated approach to assessment, which aims to provide a balanced assessment of potential economic, environmental and social impacts of public authority interventions.<sup>1</sup> To provide an integrated assessment, SIA draws together various techniques that are deployed in economic analysis, environmental impact assessment, and poverty and social impact assessment.

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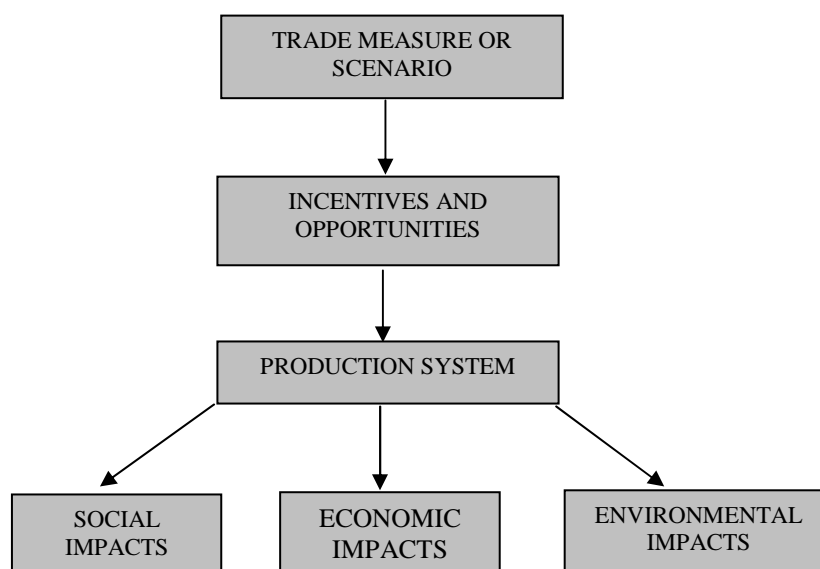
<sup>1</sup> See the Proceedings of the recent OECD Workshop on Sustainability Impact Assessment (OECD, 2008).

Trade SIA is the application of the SIA approach to trade policy interventions. The purpose of the SIA is to support better policy making, by providing decision makers with an evidence-based assessment of the potential positive and negative consequences of their policy choices. To achieve this, the analysis strives to be credible, evidence-based, and transparent. The results of the assessment also need to be provided to decision-makers at an early stage in the policy cycle, if they are to inform the decision-making process.

The methodological framework for Trade SIA is described in the EC's Handbook for Trade Sustainability Impact Assessment (EC, 2006). The cornerstone of the SIA methodology is causal chain analysis. Causal chain analysis (CCA) is used to identify the significant cause-effect links between the proposed trade measure (scenario) and its eventual economic, social and environmental impacts. The aim of CCA is to distinguish the significant cause-effect links in the chain, where the analysis is undertaken in logical sequence, from 'cause' to 'effect'. The evidence that is used to explain the causal chain analysis is derived from theoretical reasoning, economic modelling, other quantitative techniques, existing studies, and expert opinion from key stakeholders.

The causal chain analysis can be represented in the form of a causal chain diagram, which shows each of the main linkages in their logical order of causality (Figure 1).

**Figure 1: Causal Chain Analysis of Impact of a Trade Measure on Sustainable Development**



A change in trade policy will alter the incentive structures and opportunities in the markets affected by the measure of trade liberalisation specified in the scenario. A rules change, for example, alters the market conditions for producers and consumers, and the new structure of incentives and market opportunities will induce a change in the economic behaviour of enterprises (producers) and households (consumers).

Figure 1 illustrates, in its simplest form, the causal chain approach which is used in SIA to assess significant linkages and final impacts on the sustainable development indicators. It does not convey the full complexity of the linkages between each stage in the causal

chain, nor does it convey the cross-linkages between the social, economic and environmental impacts. Further, the direct and indirect impacts from individual measures may have cumulative impacts, which need to be considered in the appraisal of the trade agreement as a whole. The ‘routes’ through which these cause-effect relationships operate may be numerous and complex.

Figure 1 also abstracts from the dynamic nature of the causal links between the initial change in the trade measure and the final impact in terms of sustainable development. The changes represented in Figure 1 do not occur instantaneously or simultaneously and the speed of adjustment will vary in different parts and at different stages in the causal chains. There may also be feedback processes during the intermediate stages of the cause-effect relationships, before the final impacts on sustainable development occur.

The next stage in the causal chain analysis is to assess the significance of the linkages from the changes in enterprise and household behaviour, to the economic, social and environmental indicators of sustainable development. For this purpose the SIA methodology uses a set of core indicators (Table 1).

**Table1: Core Sustainability Indicators**

| Sustainability dimension | Core indicator   |
|--------------------------|--|
| Economic                 | Real income<br>Fixed capital formation<br>Employment             |
| Environmental            | Biodiversity<br>Environmental quality<br>Natural resource stocks |
| Social                   | Poverty<br>Equity<br>Health and education                        |

In addition to the nine core indicators for sustainability outcomes, the methodology allows for two process indicators which influence the long term economic, social and environmental impacts of trade liberalisation:

- Consistency with sustainable development principles
- Institutional capacity for effective sustainable development strategies

The core indicators are used to show the impact of the trade measures on sustainable development in its economic, environmental and social dimensions. The inclusion of process indicators allows for the assessment of impacts on the key procedures, processes and practices that are needed for longer-term advancement of sustainable development.

The significance of the impact on sustainability indicators is defined in terms of greater or lesser significance:

- 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.

Distinctions between greater and lesser significance are based on the importance of an impact for the particular economic, social or environmental factor concerned. They give no indication of relative importance of different impacts. The following factors are 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.

Two scenarios are used in assessing the potential impact of the trade negotiations on sustainable development:

- Base scenario: no change in the current negotiated trade measures affecting EU and Mercosur trade, including no agreement on the trade liberalisation measures being discussed within the WTO Doha Development Agenda negotiations. The baseline scenario assumes, therefore, a continuation of existing trends in trade flows and current levels of tariff and non-tariff measures.
- Further liberalisation scenario: this represents the strongest probable implementation of the trade negotiations, including economic modelling of full tariff removal. Negotiating options for the actual trade agreement cover a range of intermediate scenarios, involving different degrees of liberalisation for each type of product or service, differing for each form of trade measure.

The main focus of the SIA is on the potential impacts in the regional groups that are party to the trade negotiations. However, the SIA will also provide information on potential impacts at the individual country level, where it appears that a particular country may be disproportionately affected (positively or negatively), or where countries are likely to respond in different ways, e.g. depending on their competitive position. Equally, social and environmental impacts may vary significantly at the country or intra-country level.

The SIA methodology allows for the assessment of possible preventative, mitigation or enhancement measures, subsequent to the assessment of potential impacts. These measures can be categorised as follows:

- Trade-related measures, which can be integrated into the trade agreement
- International and regional measures to improve the policy environment and strengthen national regulatory capacity
- National sectoral policy measures to remedy or regulate market imperfections and/or mitigate adjustment costs.

Consultation is a key part of the SIA methodology. Consultation is a source of evidence for the assessment of impacts and also contributes to good governance in terms of accountability and transparency with stakeholders.

The SIA methodological framework needs to be adapted and modified to meet the particular conditions and requirements of the trade negotiations that are being assessed.

In the case of the EU –Mercosur Trade SIA, the assessment of economic impacts included the quantitative results obtained from an integrated CGE model.<sup>2</sup>

### 1.3 The EU- Mercosur Trade SIA Programme

As part of its commitment to ensuring that its policy choices are consistent with the overarching objective of sustainable development, DG Trade has commissioned a Trade SIA for the current negotiations for a trade agreement between the EU and the Mercosur trade area composed of Argentina, Brazil, Paraguay and Uruguay.

The objective of the EU-Mercosur SIA programme is to assess how the trade aspects of the Association Agreement could affect sustainable development in the EU and the Mercosur region. The SIA assesses the potential economic, social and environmental impacts of the proposed agreement in Mercosur and the EU, and proposes measures for avoiding, preventing or mitigating adverse impacts and enhancing beneficial ones.

There are two phases to the EU-Mercosur Trade SIA programme:

- Phase 1 (2007)

Phase 1 provided a *Preliminary Overview SIA* of the EU Mercosur negotiations. This preliminary Overview provided a detailed assessment for each of the main areas for negotiations, namely, agriculture, manufacturing, services and rules based measures (investment, public procurement, and trade facilitation).

Phase 1 also provided three additional *Sectoral SIAs* covering *agriculture, automobiles and forests*.<sup>3</sup>

- Phase 2 (2008)

Phase 2 provides a *Final Overview SIA* of the EU Mercosur negotiations (this report). The Final Overview SIA updates the Preliminary Overview SIA that was completed during the first phase of the programme and also incorporates the findings of the sectoral studies undertaken in Phase 1 and Phase 2.

Phase 2 also provides two additional *Sectoral SIAs*, covering *trade facilitation and financial services*. The sector reports contain an overview of the current trade situation in each sector, an analysis of the expected significant economic, social and environmental impacts resulting from trade liberalisation and/or rules changes, and proposals for preventive, mitigation and enhancement measures that would prove effective in tackling any adverse impacts of liberalisation and/or in promoting its positive impacts in these two sectors. A team of experienced local experts has prepared six detailed case studies, the results of which are incorporated into the Trade Facilitation and Financial Services SIAs.

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<sup>2</sup> The EU-Mercosur CGE model is described in Annex 1. It is important to note that the CGE model uses data for 2001, and therefore may not fully reflect current realities and relationships.

<sup>3</sup> The Phase 1 reports are available on the project website ([www.sia-trade.org](http://www.sia-trade.org)) and the DG Trade website.

## 1.4 The Consultation Process

Consultation with key stakeholders is an integral part of the Trade SIA methodology and key stakeholders in Mercosur and Europe have provided input into the SIA process by engaging in consultations on the draft reports. This process of engagement with stakeholders and interested parties has been conducted by the development of an experts network, website usage, public meetings in Brussels and Montevideo, networking with other groups and parties involved in EU and Mercosur trade policy, and dissemination of general Trade SIA outputs to the research and policy communities through publications and conference presentations.

The draft Phase 2 Inception Report was distributed electronically at the beginning of April 2008, and a Civil Society meeting to discuss the report was held in Brussels on 28<sup>th</sup> April, 2008. In addition to the comments received at the public meeting, the consultants received comments sent electronically the project website. The consultants' response to the comments received on the draft Inception Report were posted on the project website ([www.sia-trade.org](http://www.sia-trade.org)).

Engagement with stakeholders in the Mercosur countries is of particular importance, and for this purpose a regional Consultation on the Inception Report was held on 20-21 May 2008 in Montevideo, Uruguay. The minutes of this meeting are also available on the project website.

The draft Phase 2 Mid Term Reports were discussed at a public consultation with civil society held in Brussels on 15<sup>th</sup> July 2008. A summary of the comments received together with the consultants' response, is available on the project website.

The draft Final Reports were discussed at a public consultation with civil society held in Brussels on 24<sup>th</sup> November 2008. A summary of the comments received together with the consultants' response, is available on the project website.

Spanish and Portuguese translations of the executive summaries for the Inception, Mid Term and Final Reports are available on the project website and on the DG Trade website.

Dialogue with stakeholders and experts has been maintained, covering all the areas of the trade negotiations. The principal mechanism for achieving this is through the Experts Network database which includes stakeholder organisations and individuals in the European Community member states and Mercosur, including experts with knowledge in a wide range of environmental, social and economic areas. Electronic communication with stakeholder representatives is supported by the posting of reports and other information on the project website, and through the website's feedback facility and email correspondence with participants. Direct dialogue with stakeholders has also been pursued through attendance at international events involving civil society and governmental representatives.

The contractor has continued to run the open access website at [www.sia-trade.org](http://www.sia-trade.org). All interested parties, whether individuals or organisations have been invited to participate in the current phase of the SIA programme, using the dedicated email address for comments – [sia-trade@manchester.ac.uk](mailto:sia-trade@manchester.ac.uk)

The contractor has continued to respond to the comments received, using the feedback-comment function that is incorporated in the website to facilitate dialogue with stakeholders and other interested parties.

The contractor has also continued to engage in the wider policy debate on issues relating to trade policy analysis, impact assessment and sustainability impact assessment and to disseminate the results of the SIA work through publications.

*Publications:*

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Franz J. and C. Kirkpatrick (2007) ‘Integrating Sustainable Development into European Policymaking: The Role of Impact Assessments’ Journal of Environmental Assessment Policy Management, vol.9, no.2, June, pp.1–20.

Iwanow T. and C. Kirkpatrick (2007) ‘Trade facilitation, regulatory quality and export performance in developing countries’ Journal of International Development.

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Franz J. and C. Kirkpatrick (2008) ‘Improving the quality of integrated policy analysis: impact assessment for sustainable development in the European Commission’ Evidence and Policy, 4, 2, May

Kirkpatrick C. and Scricciu S. (2008) ‘The Environmental Impact of Trade and Investment Liberalization: Assessing the Economic Evidence’ Journal of Environmental Planning and Management

George C. and Kirkpatrick C. (2008) ‘Sustainability Impact Assessment of Trade Agreements: From Public Dialogue to International Governance’ Journal of Environmental Assessment Policy and Management, vol10, no1, March

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## **1.5 Structure and Content of the Final Overview Trade SIA**

The Final Overview SIA Report updates the findings of the Phase 1 Preliminary Overview SIA, supplemented where necessary, with the further analysis of the potential impacts on sustainability of the Association Agreement between the EC and Mercosur that were presented in the Phase 2 Mid Term Report.

This Phase 2 Final Overview SIA Report proposes a number of measures that might be introduced to address the negative impacts and maximise the positive impacts of further liberalisation and changes in rule-making. It also provides proposals for the ongoing monitoring of key sustainability indicators affected by trade liberalisation and for the ex post evaluation of the Final Overview SIA Report.

There are four Sections to the Final Overview Report:

1. Introduction
2. EU - Mercosur Trade Negotiations
3. Sustainability Impacts of EU Mercosur Trade Negotiations
4. Preventive, Mitigation and Enhancement Measures and Policy Recommendations
5. Conclusions

## **2. THE EU MERCOSUR TRADE NEGOTIATIONS**

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### **2.1 Introduction**

The SIA methodology provides for the estimation of two scenarios: a baseline scenario (often referred to as ‘do nothing’ or ‘business as usual’) and a further liberalisation scenario. Impacts are estimated as the difference in the outcomes expected with the baseline scenario and the further liberalisation scenario. The Phase 1 preliminary overview report provided detailed information on the recent trends and structure of EU Mercosur trade and investment flows. This section of the Phase 2 Mid Term Report updates the baseline economic, social and environmental conditions and anticipated trends, and describes the Mercosur institutional context for trade negotiations.

### **2.2 The EU Mercosur Negotiations**

The EU’s trade strategy paper (EC, 2006a) identifies Mercosur as one of the priority areas for Europe’s regional trade negotiations, based on the size of the Mercosur market and the potential for stimulating inter-regional trade flows by removing market access obstacles. The EU and Mercosur signed the EU-Mercosur Interregional Framework for Cooperation Agreement in December 1995. The agreement was based on three pillars: political dialogue, cooperation and trade issues. Its objective was to create a framework for negotiations on an Interregional Association Agreement which should include full liberalization of trade in goods and services in conformity with WTO rules, enhanced forms of co-operation and strengthened political dialogue.

Negotiations for an EU-Mercosur Association Agreement were launched at the Rio Summit, in June 1999 and covered the full range of trade-related areas: trade in goods and services; sanitary and phytosanitary measures; the liberalization of capital movements; opening up government procurement markets for goods, services, and public works; competition policies; intellectual property rights; and dispute settlement (IADB, 2006).

The trade chapter negotiations are governed by three main principles (EC, 2006b):

- (1) A region to region approach, which constitutes the basis of discussions on all regulatory areas;
- (2) The agreement should be comprehensive and balanced, going beyond the respective obligations in WTO. No sector should be excluded, while taking account of product sensitivities;
- (3) The agreement should constitute a single undertaking, implemented by the parties as an indivisible whole.

The EU – Mercosur Bi-regional Negotiation committee (BNC) is the main forum for negotiation, and its work is complemented by other institutional mechanisms such as the sub-committee on Cooperation and three Technical groups on trade. The first round was held in April, 2000. Since then, a series of negotiation rounds have taken place.

By the time of the thirteenth round in May 2004 there was agreement on the whole text of the cooperation chapter. Cooperation is to cover a wide range of topics, including standards, services, investment, energy, transport, science and technology, customs, competition, agriculture, and fisheries (IADB, 2006). During that ministerial meeting substantial progress was made also with the trade chapters which allowed both parties to realistically envisage conclusion of negotiations by October 2004. In that month, however, a trade negotiators' meeting at ministerial level decided that the offers on the table were insufficiently ambitious, especially in agricultural and service sectors.

Following a number of technical contacts in 2005 to discuss the ways to re-engage the process, both sides exchanged in early 2006 non-papers with proposals for further negotiations. They also regularly met, for instance at the EU-Mercosur Ministerial meeting in Vienna, Austria, in May 2006, and during a trade coordinators' meeting in Rio, Brazil, in November 2006.

The EU and Mercosur negotiators took stock of the negotiations at the EU-Latin America Summit that took place in April 2008, in Lima, Peru. Both sides agreed that concluding EU-Mercosur Association Agreement negotiations was very difficult, if not undesirable, before the outcomes of the Doha Round was known. Nevertheless, there was a continued interest in both parties in reaching agreement on the trade negotiations.

### **2.3 EU Mercosur Trade Flows**

In recent years, Mercosur's trade flows have recorded record levels for both exports and imports and a positive trade balance. In 2006, the most recent year for which full year data are available, Mercosur's total exports and imports stood at \$190 billion and \$135 billion, respectively. This represents a 16% increase from the previous year with regards to exports and 23% increase of imports.

An analysis of Mercosur countries' trade flows with external partners (Table 2) shows that the EU is Mercosur's largest trade partner. However, growth has been greater with other partners especially from South America and the Asia and Pacific Region. These changes in the composition of Mercosur's exports reflect the steep GDP growth rate of Latin American and Asian Partners, whereas the demand from most traditional markets such as European Union and NAFTA has developed more slowly. Although the EU's share of Mercosur's extra-bloc exports has declined over the last decade, the European Union remains Mercosur's main trading partner, accounting for nearly 25% of total exports in 2006, followed by the NAFTA, and in particular the USA which represents 20% of exports. In terms of Mercosur's imports, EU remains the largest sole exporter to the region but as in the case of exports, imports show greater dynamism with countries with Latin America and Asia and the Pacific. As a result, the share of EU imports in Mercosur's total imports have declined from 34% in 1998 to 24% in 2006. In 2006, there was a 4% increase in the share of Mercosur imports coming from the Asia and the Pacific as that region became the main supplier of exports to Mercosur. This can be attributed to an incremental leap in imports coming from China, with demand for imports coming from this country increased by 40% over the previous year (INTAL, 2007).

**Table 2: Mercosur's Extra Block Trade (Import and Export)(%)**

| <b>Exports</b>                 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------------------------------|------|------|------|------|------|------|------|------|------|
| Asia & Pacific*                | 16.5 | 16.5 | 15.7 | 16.5 | 17.7 | 20.3 | 19.2 | 19.6 | 19.4 |
| EU25                           | 33.3 | 33.0 | 30.6 | 28.0 | 26.9 | 27.1 | 26.6 | 24.4 | 24.6 |
| LAC (exc. Mercosur and Mexico) | 15.8 | 13.8 | 14.9 | 15.3 | 14.4 | 13.3 | 14.7 | 16.0 | 17.4 |
| MENA                           | 6.0  | 5.4  | 4.8  | 6.0  | 6.1  | 5.7  | 6.3  | 6.0  | 6.4  |
| NAFTA                          | 22.8 | 26.3 | 29.1 | 28.3 | 28.7 | 27.1 | 26.5 | 25.4 | 23.3 |
| Non EU Europe and CIS          | 3.4  | 3.2  | 2.9  | 3.6  | 3.6  | 4.0  | 4.0  | 4.9  | 5.4  |
| Sub Saharan Africa             | 2.2  | 2.0  | 1.9  | 2.4  | 2.7  | 2.4  | 2.8  | 3.6  | 3.5  |
| <b>Imports</b>                 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Asia & Pacific                 | 18.8 | 17.7 | 20.1 | 20.4 | 20.5 | 23.0 | 24.3 | 26.9 | 30.9 |
| EU                             | 35.5 | 36.1 | 30.9 | 31.9 | 32.4 | 30.5 | 28.2 | 27.4 | 24.4 |
| LAC (exc. Mercosur and Mexico) | 6.6  | 6.9  | 7.9  | 6.7  | 6.4  | 6.3  | 6.6  | 7.5  | 8.6  |
| MENA                           | 2.5  | 3.2  | 4.4  | 3.8  | 4.8  | 5.2  | 6.0  | 6.1  | 5.2  |
| NAFTA                          | 31.6 | 30.7 | 30.6 | 29.9 | 28.3 | 26.0 | 24.3 | 23.4 | 21.8 |
| Non EU Europe and CIS          | 3.2  | 3.2  | 3.6  | 3.7  | 4.5  | 5.3  | 5.1  | 4.3  | 3.9  |
| Sub Saharan Africa             | 1.8  | 2.1  | 2.5  | 3.6  | 3.1  | 3.7  | 5.5  | 4.3  | 5.2  |

Source: Comtrade; \*- Excludes Middle East and Commonwealth of Independent States

Mercosur trade with the EU has reached record levels in the past years. In 2006, bilateral trade was \$66.3 billion, with exports being \$39.5 billion, up by 14.9% from 2005 and imports were \$26.7 billion, up by 13.1% from the previous year. Historically, Mercosur economies have experience trade deficits with the EU. This trend has, however, been reversed in 2002, since when Mercosur has had increasing trade surpluses with the EU. Much of this trade surplus is accounted for by agricultural sector trade. In 2006, Mercosur's agricultural exports to the EU were worth \$19.5 billion and imports amounted to only \$1.05 billion. In contrast, Mercosur's exports of manufactured goods were nearly \$13 billion with imports of manufactured goods from Europe amounting to \$24.4 billion.

Table 3 shows the top ten EU exporters to and importers from Mercosur, in 2006. Netherlands and Germany are the main countries of destination of Mercosur exports with both accounting for around 18% of total EU exports from the region. The top eight European countries comprise nearly 90% of total imports from Mercosur, and include Italy, Spain, UK and France. With regards to European Union's exports to Mercosur, German exports comprised nearly a third of EU's total exports to the region. As in the case of imports the top eight European exporters comprise nearly 90% of total EU exports to Mercosur.

**Table 3: Top ten EU exporters and importers form Mercosur (2006)**

| Country |                | Exports   | % share | Country        | Imports   | % share |
|---------|----------------|-----------|---------|----------------|-----------|---------|
| 1       | Netherlands    | 7,293,852 | 18.4    | Germany        | 8,286,390 | 31.0    |
| 2       | Germany        | 7,174,409 | 18.1    | France         | 3,877,484 | 14.5    |
| 3       | Italy          | 5,063,465 | 12.8    | Italy          | 3,584,110 | 13.4    |
| 4       | Spain          | 4,374,210 | 11.1    | Spain          | 2,120,916 | 7.9     |
|         | United Kingdom |           |         | United Kingdom |           |         |
| 5       | Kingdom        | 3,389,220 | 8.6     | Sweden         | 1,882,234 | 7.0     |
| 6       | France         | 3,339,592 | 8.4     | Belgium        | 1,205,800 | 4.5     |
| 7       | Belgium        | 3,319,335 | 8.4     | Netherlands    | 1,025,269 | 3.8     |
| 8       | Portugal       | 1,561,785 | 3.9     | Finland        | 629,745   | 2.4     |
| 9       | Poland         | 645,163   | 1.6     | Austria        | 601,353   | 2.2     |
| 10      | Finland        | 611,419   | 1.5     |                |           |         |

Source: Comtrade

In 2006, Brazil accounted for 74% of Mercosur trade with the EU, while Argentina accounts for 22%, Uruguay for 2.3% and Paraguay for 1%. The composition of Mercosur exports to the EU is different from the composition of exports to the rest of the world. Agricultural Commodities and Crude Materials comprise 57.6% of exports to the EU but only 38.4% of exports to the rest of the world. In contrast, Mercosur's main exports to the world fall in the Manufactures and Machinery category which, in 2006, amounted to 40.2% of total exports (Table 4).

**Table 4: Composition of Mercosur exports, 2000–2006 (%)**

|                | Agricultural & Food |      | Crude Materials |      | Material Fuels |      | Oils |      | Chemicals |      | Manufactures |      |
|----------------|---------------------|------|-----------------|------|----------------|------|------|------|-----------|------|--------------|------|
|                | 2000                | 2006 | 2000            | 2006 | 2000           | 2006 | 2000 | 2006 | 2000      | 2006 | 2000         | 2006 |
| World          | 23.9                | 23.7 | 13.0            | 14.7 | 6.6            | 9.2  | 2.6  | 2.8  | 6.6       | 6.9  | 45.1         | 40.2 |
| Asia & Pacific | 22.6                | 20.8 | 30.7            | 39.6 | 1.0            | 8.8  | 11.5 | 7.6  | 4.6       | 3.3  | 29.6         | 20.0 |
| EU25           | 37.7                | 35.8 | 22.0            | 21.8 | 0.5            | 3.6  | 0.7  | 2.4  | 3.8       | 5.0  | 34.7         | 31.2 |
| LAC*           | 15.5                | 13.6 | 3.7             | 3.0  | 18.3           | 15.8 | 3.0  | 2.4  | 12.2      | 11.3 | 47.1         | 53.8 |
| MENA           | 57.0                | 57.4 | 12.4            | 11.9 | 0.7            | 0.3  | 16.2 | 9.0  | 1.3       | 0.8  | 12.5         | 20.6 |
| NAFTA          | 11.6                | 11.0 | 6.5             | 6.5  | 7.9            | 11.0 | 0.3  | 0.3  | 5.0       | 7.5  | 66.9         | 61.8 |
| Europe & CIS   | 43.0                | 62.8 | 20.2            | 11.8 | 0.0            | 0.1  | 2.7  | 2.2  | 2.9       | 1.9  | 28.9         | 15.1 |
| SSA            | 37.8                | 36.7 | 5.3             | 2.8  | 2.1            | 13.2 | 6.9  | 5.1  | 8.2       | 5.9  | 37.4         | 36.3 |

Source: Comtrade; \*- Excludes Middle East and Commonwealth of Independent States;  
 \*\* - excludes Mexico and Mercosur

Mercosur's export portfolio is fairly diversified, but with wide variation across countries. More than 50% of Brazil's exports are composed of industrial goods, but this percentage decreases to 14.6% for Paraguay. Crude materials and fuels account for 34% of Paraguay's exports, while this sector only represents 11.6% of Uruguay sales to the

world. Agricultural raw materials and food account for 48.4% of Uruguay's exports, 42.9% for Argentina, 34% for Paraguay and 22.7% for Brazil.<sup>4</sup>

In 2006, Mercosur's imports from the EU consisted mostly of Machinery and Manufactured Goods with 68.5% of total imports and of Chemicals & Pharmaceuticals with 24.8% of total imports (Table 5). Together, these two categories comprised 93.3% of Mercosur's total imports from EU.

**Table 5: Composition of Mercosur Imports, 2000–2006 (%)**

|                    | Agricultural<br>& Food |      | Crude<br>Materials |      | Material<br>Fuels |      | Oils |      | Chemicals<br>& Pharmac. |      | Manufactures |      |
|--------------------|------------------------|------|--------------------|------|-------------------|------|------|------|-------------------------|------|--------------|------|
|                    | 2000                   | 2006 | 2000               | 2006 | 2000              | 2006 | 2000 | 2006 | 2000                    | 2006 | 2000         | 2006 |
| World              | 6.0                    | 3.8  | 3.1                | 3.7  | 11.7              | 15.4 | 0.3  | 0.3  | 17.7                    | 17.7 | 60.9         | 58.9 |
| Asia &<br>Pacific* | 1.0                    | 0.7  | 1.9                | 2.1  | 5.5               | 8.0  | 0.3  | 0.3  | 9.8                     | 9.5  | 81.5         | 79.4 |
| EU25               | 3.0                    | 2.4  | 1.3                | 1.4  | 2.5               | 2.3  | 0.4  | 0.6  | 22.0                    | 24.8 | 70.5         | 68.5 |
| LAC**              | 16.6                   | 8.7  | 8.1                | 16.4 | 34.7              | 32.6 | 0.3  | 0.1  | 9.3                     | 8.6  | 30.9         | 33.6 |
| MENA               | 0.4                    | 0.7  | 1.3                | 2.0  | 92.6              | 88.5 | 0.3  | 0.0  | 4.3                     | 7.5  | 1.1          | 1.4  |
| NAFTA              | 1.7                    | 1.0  | 2.9                | 2.9  | 2.7               | 6.8  | 0.1  | 0.0  | 23.6                    | 27.3 | 69.0         | 61.8 |
| Europe &<br>CIS    | 6.4                    | 5.3  | 2.3                | 1.5  | 9.7               | 9.9  | 0.5  | 0.0  | 50.1                    | 49.2 | 31.0         | 34.2 |
| SSA                | 3.4                    | 0.9  | 7.4                | 1.4  | 74.2              | 89.8 | 0.0  | 0.0  | 4.2                     | 1.7  | 10.8         | 6.2  |

Source: Comtrade; \*- Excludes Middle East and Commonwealth of Independent States;

\*\* - excludes Mexico and Mercosur

Mercosur countries are major producers and net-exporters of agro-food products. In 2003, Brazil ranked third in the top-10 list of agro-exporters and Argentina ranked seventh. Both countries are also the second and third EU providers of agricultural products, behind the US. The agricultural sector is a key component of Mercosur economies. In all the member states, agriculture accounts for more than 10% of GDP. Mercosur exports of agricultural products are diversified. Table 6 shows that the most important products exported by Mercosur are: soybeans and soy products, bovine and poultry meats and preparations, sugar, fruits juices, coffee, corn, wheat, tobacco, fruits and vegetables (fresh and prepared).

**Table 6: Value and destination of Mercosur agricultural exports (2004)**

|                             | World<br>(\$USm) | Share<br>of Mercosur<br>total<br>agricultural<br>exports (%) | Asia<br>(%) | EU<br>15<br>(%) | Mercosur<br>(%) | North<br>America<br>(%) | Other<br>(%) |
|-----------------------------|------------------|--|-------------|-----------------|-----------------|-------------------------|--------------|
| Beverages/Spirits           | 824              | 1.8  | 27          | 23              | 8               | 20                      | 22           |
| Bovine<br>Meat/Preparations | 4343             | 9.3  | 14          | 35              | 2               | 17                      | 32           |
| Coffee                      | 1759             | 3.8  | 12          | 56              | 2               | 20                      | 10           |

<sup>4</sup> Source INTAL, 2005: Data for 2004

|   |              |            |    |    |    |    |    |
|---|--------------|------------|----|----|----|----|----|
| Corn                                      | 1825         | 3.9        | 42 | 19 | 3  | 0  | 36 |
| Dairy products/Bird's eggs/natural honey  | 1014         | 2.2        | 12 | 16 | 10 | 9  | 53 |
| Poultry meat/preparation                  | 2875         | 6.2        | 58 | 7  | 8  | 6  | 21 |
| Soybeans/soya products                    | 18665        | 40         | 49 | 24 | 0  | 1  | 25 |
| Sugar                                     | 2707         | 5.8        | 1  | 1  | 80 | 1  | 17 |
| Swine meat/preparation                    | 745          | 1.6        | 44 | 37 | 3  | 1  | 15 |
| Tobacco                                   | 1666         | 3.6        | 33 | 2  | 1  | 7  | 58 |
| Vegetables/fruits (fresh and preparation) | 1456         | 3.1        | 15 | 4  | 7  | 0  | 74 |
| Fruit juices                              | 1657         | 3.5        | 23 | 33 | 4  | 16 | 24 |
| Wheat                                     | 1613         | 3.5        | 2  | 44 | 21 | 16 | 17 |
| Other agricultural products               | 5565         | 11.9       | 11 | 63 | 0  | 20 | 5  |
| <b>TOTAL</b>                              | <b>46714</b> | <b>100</b> |    |    |    |    |    |
| <b>AGRICULTURE</b>                        |              |            |    |    |    |    |    |

Source: COMTRADE

## 2.4 EU Mercosur Investment Flows

In 2006, inward foreign investments in Mercosur stood at \$25.1 billion, which was the highest level since 2000. The liberalisation process of the Mercosur economies during the 1990s fostered the adoption of measures to promote the attraction of foreign direct investment (FDI). During this period, many public enterprises have been privatised and foreign firms have invested heavily in the region. There is also a significant outflow of FDI from Mercosur attributable to a small number of large transactions originating in particular sectors and enterprises in Brazil. In 2006, significant transactions included the acquisition of the Canadian mining company Inco by the Brazilian firm CVRD which itself accounted for \$16.7 billion of the \$28.2 billion of total Brazilian investments abroad. Furthermore it should be stressed that Argentina and Uruguay have, in recent years, become two of the main destinations of Brazilian FDI flows (INTAL, 2008).

The EU is the biggest investor in Mercosur. In 2006, EU's net FDI to the region amounted to just over \$9 billion<sup>5</sup> (Table 7). Due to strong cultural and historic links with South America, the main EU investor in the region is Spain which in 2006 had a positive net balance of foreign direct investments with Mercosur of over \$3.5 billion. In recent years the UK emerged as the second biggest EU investor in the region with net FDI of nearly \$2 billion. Other big EU economies such as France, Germany or Netherlands had net FDI to Mercosur, exceeding \$1 billion.

**Table 7: EU net FDI in Mercosur, Selected Countries, 2006**

|         | <b>Mercosur</b> | <b>Argentina</b> | <b>Brazil</b> | <b>Uruguay</b> |
|---------|-----------------|------------------|---------------|----------------|
| EU      | 9167.6*         | 2003.3           | 6579.3        | 585            |
| Belgium | 219.7**         | 41.6             | 178.1         | C***           |
| Denmark | 55.9**          | 78               | -22.1         | C***           |

<sup>5</sup> Excluding Paraguay

|             |          |        |        |      |
|-------------|----------|--------|--------|------|
| France      | 1110.2*  | -9.1   | 1097.2 | 22.1 |
| Germany     | 1518.4*  | 204.1  | 1294.8 | 19.5 |
| Italy       | 226.2*   | 53.3   | 163.8  | 9.1  |
| Luxembourg  | 197.6*   | 0      | 196.3  | 1.3  |
| Netherlands | 1016.6** | 0      | 1016.6 | C*** |
| Spain       | 3556.8*  | 1114.1 | 2364.7 | 78   |
| Sweden      | -11.7*   | 57.2   | -110.5 | 41.6 |
| UK          | 1994.2** | 1315.6 | 678.6  | C*** |

Source: Eurostat; \* - Excludes Paraguay; \*\*- Excludes Uruguay and Paraguay; \*\*\*- Confidential (undisclosed)

EU FDI to Mercosur is located in areas as diverse as telecoms, energy, financial services, the automotive industry, the agro industry and the retailing sector.

The concentration of FDI in services is particularly strong in the Mercosur region. In Brazil, between 1997 and 2000, over 81 percent of all FDI inflows were to the services sector. A large part of these investments were made by European firms, and in particular, Spanish investors. However, with the deterioration in the global economic situation and the corporate credit retrenchment, this pattern changed: in the early years of the new decade, less than 60 percent of FDI inflows were undertaken in services, while the share of FDI in manufacturing rose to 35 percent in the same period. By 2005, net EU FDI in manufacturing was \$2.9 billion and \$2.75 billion in services. The share of FDI in other areas of economic activity is negligible. In agricultural and fishing net EU's FDI in Mercosur was only 4 million.

#### Box 1: Recent Developments in Global Economic Conditions

The world economy is currently experiencing considerable volatility and uncertainty, with a combination of large fluctuations in energy and food prices, and a financial crisis which is impacting adversely on the world economy. To date, the economic growth slowdown has been greatest in the advanced economies, particularly in the United States, where the housing market correction continues to exacerbate financial stress and declining economic growth. Among the other advanced economies, growth in EU15 Europe has also decelerated, with recession being recorded in several member states. The financial sector has been severely affected by conditions in the US market, and has required significant intervention measures by the monetary authorities in the major EU member states. Economic performance in emerging and developing economies has also been affected by developments in the US and European financial markets, and activity is beginning to slow, including the Mercosur countries (IMF, 2008).

The financial market crisis was initiated by rapidly rising defaults on sub-prime mortgages in the context of a major U.S. housing correction and the consequent pressure on spreads on securities backed by such mortgages, including on collateralized debt obligations structured to attract high credit ratings. However, the fallout rapidly spread through an excessively leveraged financial system to curtailing of liquidity in the interbank market,



weakening capital adequacy and force the emergency resolution of major financial intermediaries, to deeply disrupt structured credit markets, and to repricing of risk across a broad range of instruments (IMF, 2008a). The persistence of liquidity problems of the banking sector has been due in large part to increasing concerns about credit risks. Equity prices also have retreated, and financial sector stocks have been hit particularly hard.

Food prices accelerated sharply in early 2008 and grain prices more than doubled since January 2006. Since then, food prices have fallen. Since 2001, the price of oil rose from \$20 per barrel to over \$140. The latter half of 2008 has seen a significant decline in oil prices. The rise in oil prices was driven initially by a demand driven tightening of market balances, fuelled by a combination of supply concerns and financial factors (World Bank, 2008).

The dramatic fluctuations in oil and food prices are a destabilizing element for the global economy because of their potentially severe growth and distributional effects. World Bank (2008) estimates suggest that the rise in food prices will have pushed many more people in developing countries below the poverty line. Rising global food and energy prices also contributed to domestic price pressures, with negative impacts on many individual households, economies, and on global stability.

Both Mercosur and EU have taken measures to mitigate the impact of rising fuel and food prices. Argentina has imposed taxes on grain and oilseed exports. Brazil has removed import tariffs on 1 million tonnes of non-Mercosur wheat. The EU has made a number of adjustments in the market management of the Common Agricultural Policy. Intervention stocks have been sold and a suspension of the set aside policy and some import duties on cereals have been introduced. The Council has also decided to increase milk quotas by 2% as from 2008. The potential impact of liberalisation of trade in biofuels on food prices is another relevant consideration for policymakers.

The recent downward trends in the global economy can be expected to impact adversely on EU Mercosur trade and investment flows, with a possible fall in European demand for imports from Mercosur. The decline in business confidence and corporate profitability is likely to be reflected in a decline in the volume of outward direct foreign investment to the emerging markets, including Mercosur. Economic slowdown in Mercosur could have a similarly negative impact on demand for imports from the EU.

The current turbulence in global financial markets also has implications for the adoption and implementation of strengthened regulatory and supervisory institutional arrangements, with greater consideration being given to the need for an effective regulatory framework as an integral part of trade liberalisation.

## **2.5 Mercosur Integration<sup>6</sup>**

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<sup>6</sup> For a detailed analysis of the Mercosur integration process, see the Phase 2 Final Overview Mid Term Report, section 2.4.

The significance of the impacts of EU Mercosur trade liberalisation for the Mercosur countries and for the EU will be affected by the rate of progress in deepening intra-Mercosur integration. This section summarises the constraints and challenges in progressing the intra-Mercosur integration process, and identifies a number of areas where reforms could be expected to have a positive effect on the potential gains accruing from EU Mercosur trade liberalisation. These reforms include, transposition of Mercosur decisions and protocols into each member's national legislation; completion of the customs union provisions; involvement of business, labour and other societal actors in the regional integration process. Advances in these areas will be complementary and supportive to the parallel process of EU Mercosur trade liberalisation.

The Buenos Aires Act of July 1990 was a first step in what became a broader integration project that also included Uruguay and Paraguay with the signing of the Treaty of Asuncion establishing Mercosur in March 1991. It was launched as a strictly inter-governmental organisation with three decision-making organs at its peak: the Common Market Council (CMC) responsible for outlining Mercosur's political direction and making common decisions, the Common Market Group (GMC) accorded with some implementation functions, and the Mercosur Trade Commission (CCM) restricted to dealing with trade issues. Mercosur's incremental approach to regional integration envisaged a three step process towards establishing the common market: a transition phase free trade area operating until December 1994 (this would be based on automatic tariff reductions and trade liberalisation timetables in each member country); an incomplete but dynamic customs union from January 1995 (quickly moving towards application of a common external tariff (CET) for most trade, but maintaining some exceptions with a longer phase out period); and finally, a common market from 2006 onwards (as per the initial plan). In addition, economic integration was seen as a means of building on Mercosur's original political objectives of regional security, trust among leaders and support for democracy. In July 2006, Mercosur and Venezuela signed an adhesion protocol with the latter's eventual accession as a full member awaiting approval by all Mercosur members' parliaments.

By its fifteenth anniversary in 2006, Mercosur was the fourth largest economic grouping in the world with a combined gross domestic product (GDP) of over a trillion dollars. Between 1991 and 1995, Mercosur had moved towards a free trade area that covered 95% of intra-regional trade and a customs union with a CET that covered 85% of traded goods. In its early days, growth in intra-regional trade was strong and it rose from US\$ 5.2 billion in 1991 to US\$ 20.3 billion in 1997, and the share of intra-regional trade in total trade rose from 8.9% in 1990 to a peak of 24.5% in 1997. After a sharp slump in intra-regional trade during the crises of 1999-2002, trade picked up again and by 2007 stood at approximately US\$ 39 billion.

Since 2005, the volume of trade has increased substantially and intra-regional trade remains especially significant for the smaller partners. Thus, 26% of Argentine, 37% of Uruguayan and 56% of Paraguayan trade is with their Mercosur partners; only 9.4% of Brazil's trade is with Mercosur. In addition, Mercosur attracted over US\$315 billion in foreign direct investment (FDI) between 1990 and 2005, much of it was based on specifically regionalist strategies of large trans-national corporations setting up or expanding operations in the region.

With the up-grade to customs union status in 1995, policy coordination assumed increasing importance and the reliance on inter-governmental structures resulted in the inadequate transposition of Mercosur norms and protocols into national legislation (only about half of Mercosur rules had been incorporated into national legislation by 2007). The lack of supra-national institutions has provoked relative gains conflicts, which are further aggravated by the size asymmetries among Mercosur partners. Inadequate dispute settlement mechanisms have reduced the credibility of integration policy among traders and investors, and have necessitated that complaints be settled in international rather than regional fora (for example, the on-going Uruguayan-Argentine dispute on the building of paper mills along a shared river).

Deepening of Mercosur integration implied the need to address the issue of asymmetries - of size, geography, competitiveness, capabilities, levels of development, and policy - particularly for the two smaller economies, Uruguay and Paraguay. In recognition of this problem (and in response to Uruguay and Paraguay demanding the right to negotiate separate bilateral trade agreements with third countries, particularly the United States), the CMC agreed to create a high level group to study the issue and come up with a strategic plan to overcome the asymmetries (CMC Decision 33/07 on 10 October 2007). It was decided to tackle the issue in terms of four pillars: (i) landlocked countries and infrastructure; (ii) support for competitiveness (especially mutual recognition); (iii) market access (reducing non-tariff barriers, increasing transparency); and (iv) institutionalisation (creating relevant institutions and rules, financing support for SMEs, assistance for smaller economies with technical norms and quality control).

However, the Montevideo Summit in December 2007 saw little progress made towards completing the customs union and deepening Mercosur. A common customs code was not finalised, double tariff charges were not eliminated, some 100 products remained exempted from the CET (until 2009 for Argentina and Brazil; until 2015 for Uruguay and Paraguay); and agreement on institutional reform, especially dispute settlement, was further delayed. The WTO Geneva meetings in July 2008 further revealed the divergent political attitudes and economic interests within Mercosur.

The treaty of Asuncion of 1991 envisaged a creation of a custom union with a Common External Tariff (CET) and Common Customs Code. Progress on these has so far been limited. Many exceptions to the CET were accepted, and at present the four countries still apply different external tariffs to some goods<sup>7</sup>.

Exporters to Mercosur often pay double tariffs: once on entry into Mercosur and again at the border with the destination country within Mercosur. Indeed, Mercosur can be characterised as an imperfect custom union where four different custom territories coexist instead of a single one. This situation creates significant additional costs on exporters to and within Mercosur. Also, the Common External Tariff has several hundred exceptions, when the four countries are jointly considered. Paraguay leads in this respect, followed by Uruguay. Argentina and Brazil have lists of exceptions to the CET that have been successively reduced in number during the last eight years. Further reductions and the eventual removal of all exceptions, as well as the elimination of double imposition, remains an outstanding issue for the EU-Mercosur negotiations on tariffs. In respect of trade facilitation the principal concern relates to rules of origin. Failure to fully

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<sup>7</sup> INTAL, 2006

implement the CET necessitates certificates of origin to be prepared and validated for internal Mercosur trade in goods imported from the EU, imposing unnecessary additional costs on EU exporters, Mercosur importers and customs administrations.

Due to both internal and external pressure, the core issues concerning Mercosur's customs union and facilitation of trade within Mercosur have recently become an important topic in the Mercosur internal agenda. However, progress on these issues has to date been limited.

Aware of the need to fine tune the Mercosur Common Tariff Policy the Common Market Council has highlighted 3 tasks in the framework of the 2004-2006 Work Program: (1) Defining a proposal to remove double levying of the CET that should bring a solution to the problem of custom revenue distribution between member countries. However, at the December 08 Mercosur summit they were unable to agree on a proposal to remove the double-levying of duty inside the Mercosur (2) Identifying priority sectors for establishing special common import regimes including Capital Goods and information technology and telecommunication goods (ITTG) (3) analyzing further the dispersion and consistencies of the CET.

These policy priorities sparked Decision 54/04 of December 2004 of the Mercosur Ministerial Council, on the free circulation of goods and the elimination of double collection of the Common External Tariff on imported goods. The subsequent decision 37/05, which ruled the first stage of elimination of double levying of the CET, only applies to two categories of goods: (1) those whose CET was zero in all States Parties; and (2) those for which the four Mercosur members had granted a 100% tariff preference to the advantage of the third country. Excluded were tariff items under (1), included in national CET exception lists, and also excluded were such products under conditions (1) and (2) to which some trade protection measure such as antidumping, countervailing duties or safeguard measures were applied in one of the state parties<sup>8</sup>.

For 2006-07, studies were planned to define how to implement the second stage envisaged in Decision 54/04 regarding the removal of double levying of the CET for other goods. Three requirements were established for compliance with this stage: the entry into force of the Common Customs Code, the online interconnection of the computer system of the four partners' customs administration, and the adoption of a customs revenue distribution mechanism<sup>9</sup>.

Some of the phases of implementing Decision 54/04 have already been completed:

- Digital interconnection among Mercosur custom houses
- Free circulation of goods with an External Common Tariff of zero
- Free circulation of goods from third countries with trade agreements with Mercosur that give 100 percent tariff preference, if this preference has been granted at the same level of rebate by each of four countries within the trade block.

The key remaining stages on which Mercosur countries are currently working are:

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<sup>8</sup> INTAL, 2007

<sup>9</sup> Intal, 2008

- Customs revenue distribution among the four countries
- Common customs code for the Mercosur Bloc

In terms of the Customs Code, although a text had been approved in 1994 it was never incorporated in the members' countries legislation. In July 2006, an Ad Hoc Group was set up to submit proposals on the issue. Some progress has been made but no consensus has yet been reached over several articles<sup>10</sup>.

Another problem related to facilitation of trade between Mercosur members is the customs revenue distribution mechanism which is a prerequisite of full harmonisation of the CET. The main difficulty rests with the position of Paraguay. Paraguay is concerned with the need to guarantee a minimum customs revenue, since import duties represent approximately 18% of Paraguay's total tax revenue<sup>11</sup>. This share is much lower in other Mercosur members as import duties represent approximately 2% of tax revenue in Brazil, 3% in Argentina and 5% in Uruguay.

With regards to interconnection of customs houses this work is now completed. The Trade Commission has created a single web page for each State Party to access the other partners' foreign trade operations<sup>12</sup>. Finally, a special group reporting to the CCM was formed to carry out technical analysis in this area. By mid 2007, the group reached consensus over national houses being responsible for carrying out collection, distribution and the destination of funds<sup>13</sup>. By early 2008 the text of a Mercosur Code had been agreed among members to a very large extent. The present goal aims at implementation by late 2008. An issue that will require negotiating and legal ingenuity is that of Argentina's taxes on exports. If an answer to this issue can be negotiated, the target may actually be reached.

As highlighted by Mercosur Report no. 12<sup>14</sup>, despite increased focus on harmonization of the CET, it seems unlikely that Mercosur will attain free circulation of a sample of goods by 2008, given both the existing technical difficulties in implementation, and the legal changes it would require in each of the Mercosur members (possibly even including constitutional amendments for some countries). In this respect it should be borne in mind that for Argentina the Mercosur Treaty has constitutional status, whereas in Brazil the highest level of Mercosur legislation cannot oppose the Brazilian Constitution if the ruling is to be applied within the country.

Further issues related to trade facilitation arise with technical barriers to trade, which are not fully harmonised between the four Mercosur countries, such that multiple certification may be required. From the Mercosur perspective many EU standards (such as for the chemicals industry) impose heavy compliance costs on Mercosur exporters, which may be interpreted as technical barriers to trade.

The question of whether the internal and external integration agendas should be treated separately or whether they reinforce each other has been extensively debated in academic

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<sup>10</sup> INTAL, 2008

<sup>11</sup> INTAL, 2006

<sup>12</sup> INTAL, 2007

<sup>13</sup> INTAL, 2008

<sup>14</sup> INTAL, 2008

as well as policy circles. Some observers argue that the external agenda (for example, negotiations with the European Union) provides the ‘glue’ to hold Mercosur together (Phillips 2003), while others argue that the stalling of the internal agenda has become the main obstacle to progress on the external (Carranza 2006).

Signing an inter-regional agreement with the EU could serve as an impetus to consolidating Mercosur and accelerating the intra-regional integration process (Rios & Doctor 2004). Inter-regionalism is expected not only to increase trade flows, but also to result in more investment, better and credible regulatory regimes, and improved systemic competitiveness (Doctor 2007). Also, Mercosur members have justified pursuing integration in terms of providing a reliable platform for the dynamic application of developmental policies (and the European Commission supports it in these goals<sup>15</sup>). In the absence of greater institutionalisation within the region, international agreements could provide an additional impetus to policy-makers to pursue deeper integration.

The current deficits in Mercosur integration are not necessarily an obstacle to signing a bi-regional agreement. The one issue that does cause concern in the EU is the incomplete customs union and especially the various barriers to the free movement of goods within Mercosur. Brazil has recently announced that it would like to go ahead with scrapping all intra-Mercosur tariffs and to find an acceptable formula for sharing of tariff revenues amongst regional partners.

At the same time, it has been argued that the EU Mercosur trade negotiations be potentially damaging to progress towards greater Mercosur integration. Domestic political and economic conjunctures, especially in Argentina, are not favourable to liberalisation commitments as already seen at the multilateral level in mid 2008. At this moment, Argentina would be unlikely to accept commitments at the bi-regional level that required further intra-bloc integration, especially if these were at the cost of lowering protection for its industries. One option that has been mooted is to extend elements of the EU-Brazil Strategic Partnership agenda to other Mercosur countries.

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<sup>15</sup> See the EU Regional Strategy papers published in 2002 and 2007.

### 3. SUSTAINABILITY IMPACTS OF EU MERCOSUR TRADE NEGOTIATIONS

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#### 3.1 SIA Findings for Agriculture Sector

The agricultural sector is a key area under negotiation for both the EU and Mercosur. The European Community (EC) as a whole is a net importer of agricultural products from Mercosur, with food and agricultural commodities accounting for more than 30% of Mercosur exports and representing more than 50% of Mercosur exports to the EU. EU imports from Mercosur include a small number of products, including soybean and coffee, that face zero or very low tariffs. Other products in which the Mercosur countries have a comparative advantage include “sensitive” products, such as sugar, meat, and dairy. These sensitive products are heavily protected by the EU and, therefore, the outcome of current negotiations will have the biggest impact on these sectors. Most trade in these products takes place under tariff-rate quotas (TRQs), some of which are open to high quality products only (such as ‘Hilton’ beef). Within the current framework of the negotiations, the EU has offered increased access for Mercosur agricultural products under a larger set of TRQs. Agricultural production of non-food crops is also important for EU Mercosur trade negotiations, in particular, the production and trade in biofuels.

This section presents the results of the analysis of the potential economic, social and environmental impacts of EU - Mercosur trade negotiations in agriculture, for Mercosur and the EU. The findings were first reported in the Phase 1 Final Overview Report, and were updated in the Phase 2 Final Overview Mid Term Report. The findings also draw on the separate sector studies for Agriculture and Forests that were prepared as part of Phase 1.<sup>16</sup> The agriculture sector SIA included detailed case studies for beef and ethanol.

##### 3.1.1 Mercosur

###### Economic Impacts

Output is expected to rise significantly for the agricultural sector as a whole, with little adverse impact from reduced barriers to EU imports. Mercosur production is particularly competitive for meat, cereals, sugar, ethanol and fruits, for which exports to the EU are expected to increase. Production in Mercosur is expected to expand in these sectors, allowing the development of agriculture and of the food industry. Exports of soya products to the EU may fall in response to a fall in EU beef and chicken production.

The CGE model projections for full liberalisation indicate a rise in output for grains of the order of 10% for all the Mercosur countries, using 2001 baseline data. For animal products, which include cattle rearing, the projected increase is significant in Argentina and Uruguay at around 4%, and considerably higher in Brazil and Paraguay at over 30%. Larger increases in production are projected for meat and other processed foods, of nearly 50% in Brazil and over 70% in Paraguay.<sup>17</sup> Agricultural output in Mercosur has been

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<sup>16</sup> Forest Sector Study, Final Report, November 2007; Agriculture Sector Study, Final Report, November 2007.

<sup>17</sup> These modelling estimates are for full liberalisation rather than the more limited agreement likely to be reached. The model results give an indication of the possible magnitude of the effects that could occur over the ten year period in which an EU-Mercosur trade agreement would come into effect.

growing rapidly in recent years, with increasing exports to the EU and other countries. The sector is already highly competitive and is likely to be repond rapidly to increased market opportunities following liberalisation of the European market.

Employment in agriculture is expected to rise approximately in proportion to the output changes, as indicated by the modelling results. The model assumes fixed total employment, with the increase in agriculture employment coming from a decline in other sectors. In practice most of the increase is expected to come from the rural informal sector and the rural unemployed. This will meet the demands for additional employment in agricultural production and the processing industry (sugar or ethanol for instance), with a smaller increase in urban areas for other processing and transport (including harbour services for the increased exports). A case study for ethanol was carried out as part of the SIA for agriculture (see Boxes 2 and 3).

In Brazil and Paraguay, where the percentage increase in output is greatest, the recorded level of rural unemployment is below the national average, reflecting the existing trend of rising production and its demand for extra labour. The additional output due to EU-Mercosur liberalisation will encourage a further decrease in unemployment. In Argentina and Uruguay, rural unemployment is considerably higher than the national average. The additional demand for agricultural labour in these countries may help to address this problem. These effects may change in the longer term through increased incentives for mechanisation, resulting in higher skill levels and lower agricultural employment. The effect of the EU-Mercosur agreement would be an incremental addition to existing pressures in this direction.

The expected increase in agricultural output will stimulate additional investment in the sector. This is expected to include new infrastructure and machinery as well as the acquisition of land. Total fixed capital for the agricultural sector should increase.

## **Box 2: Biofuel Production in Mercosur**

International trade in biofuels has risen dramatically in recent years and are expected to further double in the next decade.<sup>18</sup> Brazil is the world's second largest producer of ethanol, with 31% of global output, and accounts for 95% of Mercosur's production of ethanol.<sup>19</sup> Brazilian ethanol production is based on sugar cane, with production concentrated in two regions: the south east, mainly in Sao Paulo state, and in the north-east. EU ethanol imports have increased by more than fourfold since 2001, coming mainly from Brazil. Imports of biofuels from Brazil are expected to increase and can contribute to meeting EU targets.

The economic impact of liberalisation of EU Mercosur trade in biofuels are expected to be positive.<sup>20</sup> The removal of the existing EU tariff on Brazilian ethanol would increase the relative profitability of the European market for Brazil and can be expected to result in a

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<sup>18</sup> OECD, 2008a

<sup>19</sup> For detailed information on Brazil's ethanol sector, see [www.unica.com.br](http://www.unica.com.br)

<sup>20</sup> Currently a duty (102 €/m<sup>3</sup>) is applied on denatural ethanol imports at the EU border (Export Helpdesk, European Commission), while a duty of 192euro/m<sup>3</sup> applies to imports of undenatured alcohol.



significant increase in imports over and above the expected baseline growth in imports from Mercosur.

The environmental impacts of increased production of biofuels is the subject of continuing controversy and the currently available evidence on direct and indirect environmental consequences of an increase in biofuel production is incomplete and open to different interpretations.<sup>21</sup> Biofuel production from sugar cane itself generates greenhouse gases, including methane as well as carbon dioxide, and increased production will add to carbon emissions. However, the net impact on the total emissions is positive, as biofuels replace fossil fuels.<sup>22</sup> However, if an increased production causes land use changes, such as deforestation or replacement of grasslands, the net impact on GHG emissions may become negative<sup>23</sup>.

A wide range of other potential environmental impacts associated with the production of biofuels have been catalogued in the literature.<sup>24</sup> These include increased needs for irrigation and water consumption, fertiliser and pesticide runoff, soil degradation, and pollutants such as liquid waste and smoke from burning fields. In the longer term, the effective development of cellulosic technologies will be required if significant adverse environmental effects are to be avoided.<sup>25</sup> Sustainability criteria that will be imposed on biofuels with the new renewable energy directive should address these issues and mitigate the possible negative impacts.

The overall environmental impacts of an increase in biofuel production that can be attributed to EU Mercosur trade liberalisation are unlikely to be significant, relative to the changes that will occur as a result of underlying changes in the baseline conditions. However, where existing levels of environmental stress are close to critical threshold levels ('tipping points') the incremental impacts attributable to EU Mercosur trade liberalisation assume greater significance.

The social impacts of the growth in biofuels production in Mercosur have also been the subject of widespread debate, with competing evidence being presented on the positive and negative repercussions for employment, labour standards and rural livelihoods. Brazilian sugarcane is mainly grown by large scale farmers, employing unskilled labour as cane cutters. The working conditions of sugar cane labour have attracted international criticism, including from the European Union.<sup>26</sup> Partly in response to this criticism, Sao Paulo State

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<sup>21</sup> The EU Environmental Commissioner is quoted as saying that planned EU biofuel quotas should be subject to 'environmental and social concerns', prompting threats from Brazilian Foreign Ministry to appeal on the issue to the WTO (Financial Times, 21 May, 2008). The EU biofuels sustainability criteria are not yet finalised.

<sup>22</sup> Biofuels reduce GHG emissions by 80% or more relative to emissions from fossil fuels (OECD, 2008)

<sup>23</sup> WWI (2006)

<sup>24</sup> Kartha (2006), World Bank (2007), Doornbosch and Steenblik (2007), Turner et al (2007), Farrell et al (2006)

<sup>25</sup> Farrell et al (2006)

<sup>26</sup> As with the production of beef, concerns have been raised arise over the use of forced labour. NGOs have reported use of slave labour on sugar cane plantations and in ethanol production in Brazil, as well as on oil palm plantations that are increasingly geared to biodiesel production in other Latin American countries. Network of Latin American Activists (2007). Other social concerns expressed by these groups include the expansion of production into forest areas and territories occupied by indigenous and other traditional communities.

- which accounts for almost 80% of national production - has legislated to improve conditions and eliminate manual cutting over the next four years.<sup>27</sup> The Brazilian Sugar Cane Industry Association (Unica) estimates that 80% of the 500,000 jobs will disappear within the next three years as a result of mechanisation. However, mechanisation is not welcomed by the 300,000 cane-field workers since it will increase unemployment. Most workers lack the education to take on other work. The negative impact on household incomes will spread outside the production regions since the economies of the poorer northern states of Maranhao and Piaui, in particular, are heavily dependent on remittances from internal migrants sent to the south to work the five month cane-field seasons<sup>28</sup>

Where the increase in land required for increased feedstock production comes from the consolidation of small farms producing other crops, there is likely to be an increase in landless labour and loss of livelihoods for small scale farmers and/or new settlements in previously virgin land, including the rain forest. The long term impacts of increased sugarcane production in large scale commercial farms could also include greater rural poverty and an increase in migration to the cities.

As in the case of environmental impacts, it is important, although in practice difficult, to distinguish between the social effects that result from the underlying processes of social and economic change associated with changes in the structure and pattern of economic activity within agriculture and between agriculture, manufacturing and services, and the social impacts that might be attributed to the liberalisation of trade in biofuels between the EU and Mercosur. The social impacts that can be attributed to the liberalisation of EU Mercosur trade in biofuels, are unlikely to be significant relative to the much larger effects that are likely to occur as a result of the underlying changes in baseline conditions. But, as in the case of environmental impacts, where existing levels of rural poverty and labour exploitation are close to critical threshold levels, the incremental impacts attributable to EU Mercosur trade liberalisation assume greater significance.

### Box 3. Summary of Case Study Findings for Ethanol Liberalisation

#### Economic impacts

##### Mercosur

Ethanol liberalisation by the EU would result in a significant increase in export profitability, particularly in Brazil.

##### EU

Liberalisation would give a significant increase in economic efficiency, countered by the economic implications of potential international conflict over energy security and food

<sup>27</sup> It is also argued that mechanisation will have a positive environmental impact as it will allow more of the crop to be harvested and bi products to be used as biomass, while at the same time eliminating bad practices such as burning of stubble and leaves before cutting. (The Guardian, 5 June, 2008)

<sup>28</sup> 'Poor practices taint Brazil's ethanol industry' Financial Times, 21 May 2009

security. A degree of support for EU biofuel production may therefore be justified. To avoid the risk of picking losers rather than winners such support would need to operate through market mechanisms such as the European emissions trading scheme, in combination with full allowance for all environmental effects. This would tend to favour import barriers over subsidies. The competitiveness of EU biofuel production may rise with the development of second generation feedstocks and technologies, but their potential is still uncertain. The balanced approach advocated in the EC's Biofuels Progress Report may therefore be the most appropriate, using a combination of imports and some degree of protection for domestic production. EU ethanol producers have argued that such protection should be applied in the form of quantitative limits<sup>29</sup>.

## **Social impacts**

### Mercosur

Brazilian sugarcane is currently grown mainly by large farmers, with concerns over working conditions, the use of forced labour, and the expansion of production into territories occupied by indigenous and other traditional communities. These concerns would be exacerbated by increased production associated with liberalisation. The economies of scale associated with rising export production may also further disadvantage small and local producers, generating extra income but providing fewer livelihoods. Organisational support may therefore be needed to facilitate the involvement of small farmers, such as through contract farming or cooperatives, while large companies take care of the international feedstock trade. The Brazilian biofuels policy aims to address these issues, and would need to do so effectively if liberalisation is to give beneficial social impacts rather than the adverse ones that may otherwise occur.

### EU

EU ethanol production may fall significantly with full liberalisation, despite increasing demand for biofuels. Adverse social impacts are not expected to be large, but could be significant in some areas. Sugar beet production is a major source of employment in new member states, particularly Poland, where full liberalisation could have significantly adverse impacts during the transitional period.

## **Environmental impacts**

### Climate change

Ethanol produced from sugarcane in Brazil has the best energy balance of the biofuels examined in the study. Even when transported from Brazil, the invested energy is multiplied by almost six, while it is multiplied by less than four for the best of the EU biofuels. Brazilian ethanol produces lower greenhouse gas emissions than European ethanol by almost a factor of two. However, land use changes for the production of biofuel feedstock must also be taken into account. If these were allowed to result directly or indirectly in increased deforestation, which is a major contributor to climate change, the

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<sup>29</sup> UEPA (2008)

net impact of liberalisation could be adverse. The study concludes that if effective policies to prevent this were put in place, the reduction of EU import barriers to Mercosur ethanol would have a significant beneficial impact on greenhouse gas emissions.

### Mercosur

The climate of the Amazon is too rainy for sugar cane, but expansion of production elsewhere may displace products such as cotton, soybeans or livestock that can be produced in the region. Biodiversity is also of high importance in the Cerrado, much of which is well suited to sugarcane. The avoidance of significant adverse biodiversity impacts from biofuel liberalisation will depend on two key factors: the success of research programmes devoted to continuing improvements in productivity in existing agricultural areas; and the success of Mercosur governments in introducing and enforcing effective legislation to protect biodiversity rich areas. Other potential environmental impacts of liberalisation include increased water consumption, fertiliser and pesticide runoff, soil degradation, and pollutants such as liquid waste and smoke from burning fields. Such impacts may be locally significant in the absence of effective regulation. The introduction of an effective certification system may be an important mitigating action. It would need to cover all these potential impacts as well as those associated with biodiversity and climate change..

### EU

New Member States can provide additional agricultural production with no significant adverse effects, but this will be insufficient to meet the full EU biofuel target for 2020. The shortfall will be greater if second generation technologies are less effective than hoped. Increased production elsewhere in the EU would reduce the ecological value of set aside land and increase pressures for conversion of semi-natural habitats. Increased domestic production may also lead to higher usage of water and agro-chemicals. Full liberalisation of EU-Mercosur trade in biofuels can therefore be expected to have beneficial environmental impacts in the EU by comparison with continued protection and support for EU production. The overall impact is assessed to be significant for the 2020 target, and would become increasingly so if higher biofuel targets were introduced subsequently. More limited protection of EU production would enable approximately neutral effects to be achieved by comparison with the current situation.

### Social Impacts

To the extent that the increased employment in the sector comes from the pool of unemployed, it will have a beneficial impact on rural poverty, which is relatively higher in Paraguay and Brazil. There may however be an adverse social effect associated with the need for additional land. Land tenure is weak in many areas, particularly in Paraguay, where the majority of peasants have no formal land titles. Informal farmers are likely to be displaced by the expansion of commercial farming. Depending on the labour productivity of new commercial activities, the number of employment opportunities may not be sufficient for the number of persons displaced. In Brazil in particular, additional

land for agricultural production is expected come from forest clearance, resulting in the loss of livelihoods for indigenous people.

The case study for beef has identified a potentially serious concern relating to an increase in cattle production, where a small part of the employment in cattle raising is forced labour. The Brazilian government is endeavouring to combat the problem, but without effective mitigation the trade agreement could exacerbate it.

Improved export performance should strengthen Mercosur economies overall, and with effective taxation changes to offset any decline in import tax revenue, would enable increased public expenditure on health and education. But, positive impact on social welfare would depend on other aspects of government policy that interact with trade liberalisation.

Expansion of production will lead to an increase of total farm income, but not necessarily to a reduction of income inequalities in the rural economy. Increased incentives for mechanisation may in the long term lead to higher skill levels in the sector and hence to reduced inequalities for those in employment. This would however, be associated with a decline in agricultural employment and increased migration from rural to urban areas. The overall impact would depend on increasing the quantity and quality of employment in other sectors.

Competition between farmers for new arable lands is expected to increase land prices, and also land conflicts in areas where land tenure is weak. Small scale farmers could be the losers of that process, including women. Adverse gender impacts may arise through the loss of traditional livelihoods and limited opportunities for women in the formal sector. Effective enforcement is needed to ensure that decent work conditions are not adversely affected by the trade liberalisation induced expansion in the agricultural sector, including the Brazilian bovine sector, where forced labour is believed to occur.

Sugarcane production for ethanol is expected to develop in new regions where land is available, but where workers are not organised in trade-unions and may have difficulty in obtaining decent working conditions.

**Box 4: Social Impact Assessment: Rural Livelihoods, Decent Work Conditions and Gender Issues in Mercosur.<sup>30</sup>**

Rural poverty exists in each of the Mercosur countries. The incidence of rural poverty is particularly high in Brazil with 41 per cent of rural population living under the poverty line. Within groups of rural population the most vulnerable groups are women, young people and ethnic minorities such as Afro-descendants in Brazil and indigenous peoples in Paraguay.

The poor in rural areas are often faced with inadequate infrastructure, difficult access to public services and limited access to technology. This reduces opportunities for the rural population to supplement farming incomes through salaried labour and it also makes it more difficult to develop small-scale non-farm and off-farm activities. Given these

<sup>30</sup> Based on the case study presented in the Phase 2 Final Overview Mid Term Report.

constraints, much of the discussion about the likely effects of trade-led development strategies is centred on the competition that trade liberalization could produce for land and water, between large scale investments (and/or companies) and small farmers and/or community groups.

In Mercosur, the proportion of arable land (usable for cropping purposes) ranges between 2.9 and 10.2 per cent of total land extension. In Brazil, about 95% of livestock farmers are land owners and fewer than 10% of farms hold two thirds of the herd.<sup>31</sup> In Paraguay, concentration has been favourable to foreign investments (mainly Brazilian and Argentinean) which have developed extensive cattle ranges and soy plantations in The Chaco region. In Uruguay, farms over 10 hectares represent 99.6 percent of the total area. Argentina is a land-rich country with average size of 518 hectares, ranging between 74 hectares in Misiones and 21,012 in Santa Cruz. A few holdings exceed a million hectares in Patagonia or the dry west or 200,000 ha in the humid Pampas or Campos or Chaco.<sup>32</sup>

The trend from small-scale to large-scale agriculture (both for soybean and cattle production) has led to land concentration and displacement of small farmers who either have migrated into urban areas or moved into forest areas.<sup>33</sup> When displacement has led to urbanization, the new “urban” groups have put pressure (via large-scale occupation) on governments to expand urban settlements in forest areas exacerbating deforestation rates.<sup>34</sup> The displacement of small farmers can also affect indigenous communities in forest areas, as small farmer production and urban settlement expand into forest areas. Forest clearing and further expansion of the agricultural frontier into the Brazilian Amazon or the Gran Chaco region (a territory involving Paraguay, Uruguay and Argentina) reduces the natural resources on which the livelihoods of indigenous people depend.

Individuals and households from rural areas develop diversified strategies that combine farm, non-farm and off-farm activities (agriculture, cattle grazing, food processing, hand crafting, petty commerce, wage labour in agriculture as well as in temporary or even permanent urban employment).<sup>35</sup> The development of these strategies depends on the household's access to capital (natural, physical and financial, human, and social) and the effects of trade liberalisation on these capital assets will determine the impact on livelihoods. In general terms, if trade liberalization facilitates sector diversification, the expected effect of trade policies on livelihood strategies is likely to be positive due to new off-farm job opportunities. Similarly, where trade contributes to agriculture intensification, positive effects are expected if job opportunities are created (for instance in new large plantations).. Both possibilities increase the chances for small producers to develop farm and off-farm strategies in the rural area. However, there could be a negative effect if increased trade results in dispossession of land and other natural assets. The magnitude and time period of the ‘adjustment costs’ associated with this process depend on the

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<sup>31</sup> Beef production is developed in farms over 100 ha, which involve 82% of livestock. Milk production, by contrast, has a large number of livestock in farms of less than 50 ha, which contribute 39% of national production. (FAO, Brazil - country profile).

<sup>32</sup> Data at 2004. <http://www.fao.org/ag/AGP/AGPC/doc/Counprof/Argentina/argentina.htm>

<sup>33</sup> Kaimowitz and Smith (2001).

<sup>34</sup> Simmons and others (2003).

<sup>35</sup> Bebbington (2004); Hinojosa (2006).

conditions in which the new landless are integrated into the labour market of the rest of the economy.

The composition of livelihood strategies (that is, the weight of each one of the economic activities in the household's output and income, as well as on individuals' use of time) changes over time. In recent decades, farm mechanization, technological change and diversification in production have contributed to loss of rural employment, pushing people to migration. Agricultural development based on large scale farms and forestry has pushed out traditional farming and produced highly seasonal labour demand, often met by urban workers from faraway cities.<sup>36</sup> However, in other Amazonian regions the expansion of non-timber production has improved rural livelihoods. For example, the case of the biofuels economy in rural regions of Mercosur countries shows that biofuels-based employment and income can be important for poor and marginalized households.

The effects of migration on rural livelihoods and poverty levels are uncertain. In depressed areas such as the North West of Argentina and the North East of Brazil, migration has an adverse effect on the age structure, increases the demographic dependence, and erodes human capital by reducing the average level of schooling. In these conditions, outward migration may benefit the migrant household, but intensify the causes of poverty and underdevelopment in the 'exporting' area. In contrast, in other Amazonian regions the expansion of non-timber production has improved rural livelihoods.

There is continuing controversy on the impacts of large agricultural investments on labour conditions in Mercosur. Whilst activists' have articulated concerns about rural workers entrapment and unacceptable labour conditions,<sup>37</sup> other observers suggest that some forms of private investments have positively impacted labour conditions.<sup>38</sup> Brazilian sugarcane for ethanol production is mainly grown by large scale farmers, employing unskilled labour as cane cutters. The working conditions of sugar cane labour have attracted international criticism, including from the European Union.<sup>39</sup> The Brazilian Sugar Cane Industry Association (Unica) estimates that 80% of the 500,000 jobs will disappear within the next three years as a result of mechanisation. However, mechanisation is not welcomed by the 300,000 cane-field workers since it will increase unemployment. Most workers lack the education to take on other work. The negative impact on household incomes will spread outside the production regions since the economies of the poorer northern states of Maranhao and Piaui, in particular, are heavily dependent on remittances from internal migrants sent to the south to work the five month cane-field seasons.<sup>40</sup>

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<sup>36</sup> Rodriguez (2008), ECLAC (2005)

<sup>37</sup> In Brazil, violation of workers' rights happens in a context of rural violence and land disputes (see, ITUC <http://survey07.ituc-csi.org/getcountry.php?IDCountry=BRA&IDLang=EN>).

<sup>38</sup> See, for instance, Jepson (2006),

<sup>39</sup> As with the production of beef, concerns have been raised arise over the use of forced labour. NGOs have reported use of slave labour on sugar cane plantations and in ethanol production in Brazil, as well as on oil palm plantations that are increasingly geared to biodiesel production in other Latin American countries. Network of Latin American activists (2007). Other social concerns expressed by these groups include the expansion of production into forest areas and territories occupied by indigenous and other traditional communities.

<sup>40</sup> 'Poor practices taint Brazil's ethanol industry' Financial Times, 21 May 2009

The main concerns about the effects of trade liberalization in agriculture on women's welfare and gender relationships are related to the potential deepening of 'feminisation of poverty'.<sup>41</sup> This could result from differentiated access to and control of land and other productive assets, unequal employment opportunities and working conditions, and differentiated effects in terms of food security.<sup>42</sup>

In so far as trade liberalisation increases existing incentives for conversion of small scale to large scale agriculture, there are likely to be both positive and negative (particularly in the short and medium period of adjustment to changing economic incentives) impacts on the rural livelihoods of the poor. The direct effects relate to the opportunities or constraints to rural households in their access to natural resources (mainly land and water) on which agricultural livelihood strategies rely. Direct positive and negative effects can also be expected on employment in agro-industry. The indirect effects are related to the effects of trade liberalisation on facilitating or constraining access to assets (human, financial and physical) which enable the development of new forms of livelihood strategies.

The impact of EU- Mercosur trade liberalisation on rural livelihoods, gender and decent work conditions is likely to conform with the existing trends and processes of change. In the long term, the transition from small scale to large scale agriculture and to other higher wage activities can have significantly beneficial social effects. But a number of adverse transitional effects are likely to be experienced. A significant expansion in agricultural production attributable to the EU Mercosur trade negotiations would add incrementally to these positive and negative effects, unless they are effectively countered. The significance of these incremental effects of EU Mercosur trade liberalisation on rural livelihoods, poverty and gender inequality needs to be assessed in terms of the SIA methodology's standard criteria of significance. Where the existing level of stress is close to a critical threshold level, any further deterioration is likely to be judged as significant and therefore requiring careful consideration on the part of trade negotiators and policy-makers in the EU and Mercosur.

### Environmental Impacts

Agricultural production is expected to rise significantly in each of the Mercosur countries, placing pressure on both land and water. The modelling results indicate a significant rise in grain production in all the countries, with a large increase in meat production in Brazil and Paraguay. The animal products sector also rises significantly in Argentina and Uruguay. In Argentina the projected increase in beef production is relatively small. Production is likely to be intensified, with less available land than in Brazil. Significant adverse impacts on water resources are expected to be restricted mainly to the semi-arid central area where water is scarce.

Unless accompanied by appropriate sustainable production measures, the expansion of beef production could have a direct impact on deforestation, while the expansion of

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<sup>41</sup> WIDE (2007); ODI (2008)

<sup>42</sup> See, for instance, the material produced by the UN agency Women Watch (<http://www.un.org/womenwatch>).



sugarcane would have an indirect effect by taking land from products which would move into forested areas. For beef and other products the expansion would add to existing long term pressures on forests which need to be addressed by a stronger regulatory regime.

Other potential impacts which may occur from increased production unless adequately regulated, include flooding, especially on the plains such as the Pampas (arising from disruption of soil hydrology), and soil erosion from cultivation of steep slopes.

In many of the areas where agricultural production would increase, such as the Cerrado, conversion of these lands to arable cropping or intensive grassland management would require application of agrochemicals, artificial fertiliser and irrigation, both of which would have impacts on soil and water quality. Some adverse pollution impacts may occur in this and other areas where production increases, which may be locally significant in the absence of effective regulation. The use of agrochemicals potentially affects both water and soil pollution. An increase in poultry meat production could also have an impact on water contamination, depending on production methods. Effective regulation will be required in order to avoid locally significant impacts of this nature. If certificates aimed at ensuring the sustainability of production are in place, there is a reduced risk of adverse impacts from increased production.<sup>43</sup>

Large areas of the Mercosur region are of global environmental significance, particularly the Amazon and Cerrado. Global attention is, understandably, focussed on the threats to the Amazon rainforest resulting from increased trade. The most sensitive regions lie within the Mercosur region and although timber logging has been the major driver for deforestation in the Amazon, subsequent conversion of land to soya bean production has ongoing impacts on biodiversity and enforces more permanent changes to soils and hydrology.

The Brazilian Cerrado is South America's largest, and one of the world's most biologically rich, areas of savannah. Conversion to monoculture crop production (particularly soya beans) and intensification of beef production is reducing the area of natural and semi-natural habitat. At present, there remain large areas of relatively undisturbed Cerrado where conversion to soya bean production or cattle ranching would significantly reduce biodiversity.

The region includes extensive areas of wetland at the Deltas of the Orinoco, Parana and Tigre rivers. Conversion to plantation forestry is the main threat to biodiversity in these areas. In other areas such as the Pampas of Argentina, Uruguay and southern Brazil, and the Brazilian sertão, centuries of extensive agriculture, particularly cattle ranching, have already replaced the climax natural vegetation with more open grassland. Conversion of grassland to soya bean and cereal production, particularly on the fertile soils of the Pampas, has a negative impact, particularly on areas of Pampas, that are otherwise rich in diverse vegetation.

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<sup>43</sup> ETL 2006.

### **Box 5: Cross Linkages Between Agriculture and Forestry in Brazil<sup>44</sup>**

EU – Mercosur agricultural liberalisation can be expected to result in agricultural expansion and greater livestock ownership, both of which are likely to lead to increased land pressure resulting in the conversion of natural forest to other uses. The Forest case study investigated the potential effects of the EU Mercosur trade negotiations in relation to the conversion of natural forest to agricultural and pasture land and the related issues surrounding use of land for soy cultivation which is an increasingly important source of bio fuel. The focus of the case study is on Brazil because it is affected more strongly than the other three countries by land use pressures on forestry. Some of the most prominent changes relating to trade liberalisation negotiations are expected to take place within the Brazilian agricultural sector, within which soybean cultivation and extensive cattle ranching have seen considerable growth in recent times.

A broad consensus exists across a wide range of academic sources, NGOs and civil society groups that the growth of cattle ranching and soybean production and their related industries have both direct and indirect links to the deforestation of vast areas of Brazilian natural forest (Dufey, Baldock, and Farmer, 2006; Figueiredo, et al, 2006; Greenpeace, 2006).

Brazil's expansive natural forest areas, principally those of the Amazon basin are of exceptional ecological importance in global terms, being immensely rich in terms of biodiversity, with many ecosystems and individual species being largely un-researched. These forests have a complex and essential role in maintaining and sustaining the functioning of natural systems. The study therefore focuses on the interface between agricultural systems supporting cattle and soybean production since these have the greatest impact on the margins of natural forest in Brazil.

Although cattle ranching and soybean industries will be affected differentially by the FTA, the two products are inextricably linked within Brazil, with the majority of soy bean production taking place on degraded pasture. In addition, infrastructure provided to support soy production is shared by cattle ranchers, and a trend towards the intensification of cattle production may potentially increase the demand for soy based livestock feeds.

The cattle and soybean industries in Brazil have seen exceptional growth in recent times. Such expansion has been largely driven by a substantial and continuing programme of Government support, in particular, price support and subsidised credit programmes aimed at the soya agricultural industry, and the opening up of new land through infrastructure provision (Kaimowitz and Smith, 2001; Cassel and Patel, 2003, Fearnside, 2002).

Cattle ranching and agricultural activity, including the majority of soybean cultivation and almost 55% of the country's beef and pioneer cattle, are concentrated in the central sub-humid and Cerrado (savannah) belt stretching from the South West through to the North East of the country. This area encompasses the states of Mato Grosso do Sul, Goiás, São Paulo, Tocantins and Minas Gerais and Mato Grosso, which are either in, or adjacent, to the Legal Amazon region. In recent times the highest growth for cattle ranching and soybean production has largely occurred along the western fringes of this area, particularly in Mato Grosso, as well as other parts of the Amazon forest frontier.

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<sup>44</sup> Based on the Phase 1 Forestry Sector Study, Final Report, November 2007.

Brazil now ranks as the world's second largest exporter of soybean and bovine meat and the EU is by far its largest market. Exports to the EU have grown alongside recent increases in production. Soybean and soybean oilcake exports to the EU increased significantly between 2000 and 2005, although they have been subject to considerable fluctuations (the former increased from 6.4 to 9.8 million tonnes in a single year). Exports of bovine meat to the EU also increased over the same period from around 22 to 78 thousand tonnes for the fresh or chilled product, and 65 to 100 thousand tonnes for frozen. Significant potential exists for the development of biofuels, other than ethanol, including that derived from soybean oil (New Scientist, 2005). If increasing demand and surging prices for soya based bio fuel continue, the increase in soybean production in the region would be significant.

Since the early 1980s, various analysts have argued that the central cause of deforestation in Latin America is agricultural expansion, principally cattle ranching and soybean farming. Such arguments are supported by the fact that declining forest cover within the Brazilian Amazon, Parana and Atlantic Forests has been correlated with exceptional agricultural expansion and economic growth and that cattle ranching and soybean farming are the predominant uses in deforested areas in these regions (Dros, 2004). In a report for World Resources Institute and the Amazon Institute of People and Environment, Barreto et al (2006) estimate that in 2002, 47% of the Brazilian Amazon is under some type of human pressure, either as areas under pressure from human settlement (19%) or areas subjected to incipient human pressure (28%). The states of Rondônia, Mato Grosso and Para are particularly affected by both kinds of pressure.

What might be the impact of the EU Mercosur trade negotiations in terms of creating additional pressure for natural forest conversion principally within the Amazon Forest?

The extra demand for land required in order to accommodate increased agricultural production, alongside other competing land uses, such as forestry and settlement, may potentially place additional direct and indirect pressure on natural forest areas. Cumulative pressure for natural forest conversion may occur through both the competition for land resources from forestry and agriculture as well as their complementary effects on each other, with initial clearance providing a capital windfall as well as new land (Kaimowitz and Angelsen, 1998).

At current rates of efficiency, assuming that soybeans and cattle occupy roughly 172 million and 21.5 million hectares respectively an extra 55 million hectares of land would need to be brought into productive use in order to accommodate the corresponding level of growth predicted in the CETM CGE model (0.4% and 31.9%). Under this rudimentary calculation, the beef livestock sector would be responsible for the vast majority of this growth, accounting for an additional 54.9 million hectares in compared to the 86 thousand hectares required for soybeans. However, the level of land take required for extra pasture and arable land may be inflated as increased output will also be partially met through increases in productivity and efficiency, for which there is considerable scope within Brazil's soybean and cattle industries (c.f. Carvalho, 2005; and USDA, 2005). Increasing efficiencies in agricultural production may reduce forest conversion as the land area requirement is reduced and investments are made in technology rather than acquisition of new land assets.

Nevertheless, increased efficiency may also lead to increases in investment in forest conversion as agricultural production, and therefore land, becomes more profitable (Angelsen, and Kaimowitz, 2001, Perz, S. G., (2003). This position is articulated by Tomich et al (2000: 221) who state that “increased productivity of forest derived land uses also increases the opportunity costs of converting natural forest. These increased returns to investment can spur an inflow of migrants or attract large scale land developers and thereby accelerate deforestation”. Therefore it can be assumed that intensification may only have a limited effect on land take and that growth in output in both soybean and cattle production will be predominantly met through the utilisation of new land.

As outlined above, the greatest relative increase in soybean and cattle production has occurred in states, either within or adjacent to the Legal Amazon region. This trend is likely to continue into the future, particularly in the South and Centre West Cerrado regions, including Mato Grosso, which have perhaps the greatest potential for the continued expansion of pasture and agricultural land. Therefore, a continuation of previous trends would consequently further intensify production along the natural forest frontier, potentially increasing pressure for forest conversion (Simon and Garagorry 2005; Dros, 2004). Such conversion may result from either direct conversion of forested land to other land uses or more significantly through indirect conversion.

The majority of land needed for increased soybean production may be accommodated on degraded pasture rather than forested land, which can help to restore pasture soils through nitrogen fixation. However this pattern of production, alongside the considerable expansion in cattle livestock may have an indirect effect on natural forest conversion through indirect mechanisms. The expansion of cultivated land and pasture, for example in the surrounding Cerrado areas of Rondônia, Mato Grosso and Pará, may lead to conversion of land elsewhere by forcing the migration of the previous land use, typically smallholder agriculture or existing cattle ranching activity. ( Barreto, et al. 2006; Figueiredo, Porro and Pereira, 2006).

Furthermore, the expansion of soybean and cattle production and a continuation of the trend for consolidation of smaller farm units into larger agro-industrial enterprises which require less labour is likely to displace smaller farmers. Displacement of small farmers leads to increased urbanisation, but also resettlement of small farms on previously uncultivated land elsewhere. Such “shifted cultivators”, are either pushed or pulled into forest areas as a result of the concentration of land in hands of a few, relatively extensive large-scale farms in the more accessible areas. In the past this pattern of settlement has been encouraged by Government settlement schemes, however, in recent times this is more likely to take place through illegal invasions into forested areas. Forested areas are attractive to settlers because degraded pasture land can be difficult to farm by hand and invasion of occupied land is likely to be resisted by the current occupier. Additionally, forest cover is likely to be removed in order to bring an initial economic gain from the timber, to clear the land for agriculture and to improve their claim to the settled land (Fearnside, 2000; Barreto et al., 2006).

Settlement of forested land may be aided by inadequate land tenure legislation as, historically, land-tenure issues have been prominent forces driving deforestation and the spread of extensive ranching as the dominant land use in the Legal Amazon. Current Brazilian legislation allows settlers to deforest 20% of their land for agriculture and other

activities, and maintain 80% as legal reserve (Figueiredo, et al. 2006), although 50% of forest defined as 'under transition' can also be cleared (Dros, 2004). However, it has been argued that illegal felling is difficult to monitor and that in practice a much higher proportion of natural forest is felled by occupiers. By way of illustration, Barreto et al. (2006) estimate that this law is violated on between 60 to 70% of settled land. Furthermore, as argued by Laurance, Albernaz and Da Costa (2001), increasing deforestation rates and economic growth between 1995 and 2000 demonstrate that improvements in laws, enforcement and public policy have had a limited impact in relation to the protection of natural forest.

The growth in fixed capital, predicted to follow on from trade liberalisation, is likely to include new infrastructure and land acquisition in order to support agricultural expansion. In particular, the expansion of soybean production has been synonymous with massive transportation infrastructure projects, such as the Avana Brasil programme currently being undertaken in the Legal Amazon (Fearnside, 2002). Such infrastructure is essential to the opening up of the previously inaccessible, or unprofitable, adjacent natural forest frontier to colonization and exploitation by ranchers, farmers, and other actors (Fearnside, 2002; 2006, Greenpeace, 2006). Detailed case studies of communities in the Amazon Forest frontier in Mato Grosso (Figueiredo, Porro and Pereira, 2006) highlight the way in which development of new roads for the expansion of soybean production (in this case the BR-163 Highway) assist in promoting deforestation.

In conclusion, trade liberalisation in the agricultural sector in relation to the EU Mercosur negotiations is expected to result in a significant expansion in Brazil's agricultural sector. However, there is likely to be considerable differentiation within the sector and associated impacts on the natural forest will vary substantially across products. The soybean and cattle ranching industries in particular, have been held responsible for deforestation of vast areas of natural forest as a result of the considerable expansion that has taken place in those products in recent times.

Increases in production will be partially met through increases in productivity; however, for the most part, growth is likely to be accommodated by expansion of the total land area. Considering that these industries are in close proximity to the Amazon Forest, their combined growth in output, alongside that of other agricultural products, as well as in other sectors including forestry, may significantly increase the pressure for conversion of natural forest along its margin.

This case study highlights the complexities that exist between cause and effect when considering the implications of changing markets and trade agreements. For many years the main focus of concern about destruction of tropical and equatorial rain forest has been concentrated on failures of governments and local institutions to control illegal logging and regulate conversion of forest to agricultural or other land uses. The view has commonly been expressed that such impacts are the result of existing market forces and that, in one sense, liberalisation of trade will not alter these established patterns. However, the forest case study analysis points to both direct and indirect pressures that market demand for new products can create and the unwitting consequences of developing policies that meet the needs of one market without anticipating their impacts on others.

## Process Impacts

The proposed trade agreement is judged to be highly consistent with principle 12 of the Rio Declaration, in promoting a supportive and open international economic system. There are however potential conflicts with the Rio principles of reducing and eliminating unsustainable patterns of consumption (principle 8) and enhancing technology transfer (principle 9). Except in these areas, the scenario is judged to be relatively neutral in respect of sustainable development principles.

In relation to consumption and production patterns, the scenario aims to accelerate economic growth in both the EU and Mercosur. To the extent to which it achieves this goal, it will add to the underlying processes which drive increasing consumption and associated wastes. Stronger environmental regulation will therefore be needed, to achieve a sustainable balance between economic growth and environmental degradation. The EU-Mercosur trade liberalisation scenario adds incrementally to this general need.

In relation to technology transfer, the scenario encourages a movement of capital into low added value agricultural production and out of higher added value industrial production. While some aspects of agricultural production have a high technology content, the overall effect may be to inhibit technology transfer rather than enhance it.

EU-Mercosur agricultural liberalisation is judged to be neutral in its influence on institutional capacity for strategic sustainable development planning.

The potential sustainability impacts in Mercosur agriculture are summarised in Table 8.

**Table 8: Sustainable development impacts of agricultural liberalisation in Mercosur**

| Impact                         | Countries / sectors affected                                       | Causal factors                            | Factors affecting significance   | Potential significance |           |
|--------------------------------|--|---|--|------------------------|-----------|
|                                |  |   |  | short term             | long term |
| Economic                       |  |   |  |                        |           |
| <u>Real income</u>             | All countries.   | Export development, lower consumer prices | Long term gain depends on growth of other sectors  | ↑                      | ↑         |
| <u>Employment</u>              | Greatest in Brazil and Paraguay. Meat, grains, ethanol production. | Export development                        | Long term effect depends on overall structure of economy, productivity growth and technological developments | ↑                      | -         |
| <u>Fixed capital formation</u> | Land acquisition, machinery, infrastructure                        | Export development                        | Long term gain depends on overall growth of economy  | ↑                      | ↑?        |
| Social                         |  |   |  |                        |           |
| <u>Poverty</u>                 | Greatest in Brazil and Paraguay.                                   | Demand for agricultural                   | Land tenure, alternative   | ↑↓                     | -         |

|                              |  |   |  |     |    |
|------------------------------|--|---|--|-----|----|
|                              |  | labour  | employment opportunities, forced labour  |     |    |
| <u>Health and education</u>  | mixed.   | Poverty, government expenditure   | Fiscal policy and government policy; Long term effect depends on overall growth of economy | ↑↓  | -  |
| <u>Equity</u>                | Mixed effects, potentially adverse for women   | Land conflicts, mechanisation   | Employment in other sectors, redistributive policies                                       | ↑↓? | -  |
| Environmental                |  |   |  |     |    |
| <u>Natural resources</u>     | Greatest in Brazil and Paraguay for land. Argentina for water  | Increased agricultural production   | Regulatory regimes, ethanol certification  | ↓   | ↓  |
| <u>Environmental quality</u> | All  | Increased production, agrochemicals; Intensification, animal welfare; Deforestation and monocultures for increased production | Production methods, regulatory framework   | ↓   | ↑↓ |
| <u>Biodiversity</u>          | Greatest in Brazil, Amazon and Cerrado   | Deforestation and monocultures for increased production   | Regulatory regimes, ethanol certification  | ↓   | ↓  |
| Process                      |  |   |  |     |    |
| SD principles                | Positive for international cooperation, adverse for consumption and production and for technology transfer, otherwise neutral. | Acceleration of underlying processes. Capital movement out of higher technology industries                                    | Environmental regulation. Development planning   | -   | ↓  |
| SD strategies                | Neutral impact   |   |  | -   | -  |

Legend: ↑ beneficial greater significant impact, ↓ adverse greater significant impact, ↑ beneficial lesser significant impact, ↓ adverse lesser significant impact, ↑↓ beneficial and adverse impacts likely to be experienced according to context (may be lesser or greater as above), - non-significant impact compared with the base situation.

Greater and lesser significance are defined by the SIA methodology as:

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.

### 3.1.2 European Union

#### Economic Impacts

Increased imports from the Mercosur region will compete with domestic products, reducing prices to EU producers and processors, and consumers. Increased imports from Mercosur to the EU would increase pressure on EU producers, primarily in the area of chicken, sugar and beef production. Further potential economic impacts include increased imports of processed foods and ethanol from Mercosur sugarcane. Lower tariff rates are expected to lead to a reduction in deadweight losses, which would prove particularly beneficial for economies engaging in their own reforms—such as the new accession countries.<sup>45</sup>

Competition is likely to increase, notably for sugar, beef and chicken. While EU meat producers would benefit from lower wheat prices (for feed) arising from greater imports, this is unlikely to offset the competitive advantage (particularly lower labour costs) of producers in the Mercosur region. A decline in EU meat production would therefore reduce demand for grain production, particularly wheat, resulting in lower domestic prices.

The EU Biofuels Strategy<sup>46</sup> seeks to increase consumption of transport fuels produced from renewable feed stocks, reducing consumption of fossil fuels. This could represent an important opportunity also for Mercosur.

#### **Box 6: Biofuel Production in the EU**

By reducing dependence of fossil fuels and emissions of greenhouse gases, biofuels have the potential to contribute to a reduction in environmental damage and global warming. In the European Union, ethanol is mainly extracted from cereals (including wheat, barley, rye and corn) and sugar beet. Since 2001, the European Union has strongly promoted the use and production of biofuels as a means of reducing carbon emissions and dependence on oil imports. The European Council decision of March 2007 endorsed a binding target for 2020 of 10% for biofuels in petrol and diesel transport fuels. In January 2008, the Commission adopted a proposal for a directive for the promotion of renewable energy sources which confirmed the 10% binding target for renewable energy for transport for 2020. The EU target for biofuels presents an opportunity also for Mercosur exports.

The economic impact of the EU Mercosur liberalisation of biofuels trade is expected to generate financial savings for the EU, because of the lower-cost of bio-fuels imported from Mercosur, but undermine the development of the less competitive infant EU ethanol industry and the investment conditions for the development of advanced technology. ■

The direct environmental impacts of EU Mercosur trade liberalisation are expected to be positive. Sugar cane ethanol has in general a high GHG emissions saving performance. This assessment however, does not take into account the indirect effects of ethanol production. A too rapid expansion of production may cause damage to the local eco-system and land-use change unless suitable measures to produce sustainable biofuels are put in place. The currently available scientific evidence allows only a very approximate assessment of ILUC; further research will be required to come to more robust conclusions on this

<sup>45</sup> Francois et al, 2005

<sup>46</sup> February 2006, implementing the EU Biofuels Directive of May 2003.



issue. Only when both direct and indirect effects enter the life-cycle calculation of biofuel greenhouse gas emissions will it be possible to arrive at a more definite assessment.

The social impacts that could result from EU Mercosur trade liberalisation are directly related to the expected economic impacts discussed above. The social impacts of EU Mercosur trade liberalisation are unlikely to be significant.

Although the overall effect for EU agricultural production is expected to be adverse, liberalisation of the Mercosur market would be beneficial for some EU products such as wine, olive oil and spirits. Reduced trade barriers will allow some firms to expand their markets, leading consumers in Mercosur to gain better access to improved foreign varieties of goods such as wine, olive oil and spirits. All these products are likely to enter at the top of the consumer market. If this is associated with stronger protection of geographical indications, European wine producers are expected to gain further market share in Mercosur, although these gains are likely to be relatively small, in relation to the total value of agricultural trade.

The agricultural sector in the EU remains a key source of employment in rural areas, and particularly in Poland, Italy, Spain, France and Hungary, which combined account for nearly two-thirds of the total EU agricultural labour force. EU employment in the farm and agricultural processing sectors will follow the output changes, and again may be significant in local areas. Employment in primary commodity production is likely to fall, particularly in the areas of economically marginal production such as the uplands and mountainous regions where production is least competitive. These agriculturally marginal areas are those most likely to receive rural development support from the CAP for economic adaptation and the maintenance of high nature value areas which will tend to reduce the impact of trade competition. Opportunities for re-employment would be lower in the EU-10 compared to the EU-15..

The liberalisation of EU Mercosur agricultural trade will reinforce the underlying baseline downward trend in agricultural sector employment and there are likely to be short to medium term social adjustment costs as rural labour resources reallocate to non-agricultural sectors.

The increased exposure of EU agriculture to competition from Mercosur may adversely affect investment in the agriculture sector in the short and medium term. The long term effect of the trade agreement is expected to be a transfer of investment out of European agriculture into more competitive economic sectors, so that the long term overall effect for the EU economy as a whole is expected to be beneficial.

### Social Impacts

The short term impact of the Agreement on social welfare will be mostly adverse, particularly for areas specialising in meat and cereal production, but are unlikely to be significant at the national level. The adverse employment effects are likely to be felt by the least competitive farmers and processing facilities. Some rural areas will be negatively affected, and small farms may be more affected than large ones. The accession countries are expected to feel short term impacts on rural incomes and unemployment.

More competitive and entrepreneurial farmers will be in a stronger position to decrease their production costs, while less competitive ones will experience greater difficulties. There may be offsetting employment gains in the processed food sector.. Rural development support to maintain traditional agricultural systems, cultural landscapes and natural value, and to encourage diversification into new non-agricultural activities, would also reduce negative social impacts. The longer term social impact on income distribution is not expected to be significant. as shifts in the structural pattern of employment occur, with gains in services and manufacturing relative to agriculture.

Imports from Mercosur will continue to comply with EU sanitary and phytosanitary standards (SPS), and no adverse health impact is expected from increased imports. Concerns have been raised regarding the potential impact of EU Mercosur trade liberalisation on animal welfare standards.

### **Box 7: Animal Welfare**

The principal concern relating to animal welfare is that while a government can legitimately set standards of production in its own territory, any standards set which relate to methods of production rather than to the characteristics of the product, and which have the effect of discriminating against imports, will violate the normal requirements of the GATT. Trade liberalisation could therefore lead to increased competition in domestic markets from countries with lower animal welfare standards than in the importing country.

It is a priority of the European Commission to build internationally a common understanding and implementation of animal welfare standards as foreseen in the 2006-2010 Community Action Plan on the Protection and Welfare of Animals. In April 2008, DG Trade and DG SANCO held a joint conference with Eurogroup on Animals, RSPCA, CIWF and WSPA to share experience on inclusion of farm animal welfare in trade and identify ways to promote further the adoption of farm animal welfare policies.<sup>47</sup>

During the Mercosur negotiations in 2004-05, the Commission proposed including animal welfare in the scope of the agreement with the aim of cooperating in standards.<sup>48</sup> Animal welfare groups in the EU have expressed particular concerns relating to trade in eggs and derived products (dried and pasteurised), where the traded products are produced in battery cages. EU Directive 74/1999 has imposed a phasing out of conventional battery cages in the EU by 2012.

The Agriculture SIA indicated that trade liberalisation would result in increased EU imports of poultry and related products from Mercosur. While the proportion of chicken and eggs produced in Mercosur using battery cages remains to be investigated, it is reasonable to assume that a significant proportion of the increased exports to the EU market will have been produced under battery cage conditions. If the agreement requires that the Directive be met for imports from Mercosur, there will be significant economic

<sup>47</sup> See [www.animalwelfareandtrade.com](http://www.animalwelfareandtrade.com)

<sup>48</sup> Letter from Director General for Trade to RSPCA, dated 8<sup>th</sup> February 2007.

impacts for Mercosur producers. This would raise issues for flanking policy negotiations, including assistance that might be given to Mercosur producers by the EC, and the phasing-in period that might be allowed.

Animal welfare concerns are often linked with consumer health and environment concerns.<sup>49</sup> In its regional trade negotiations, for example with Chile and Canada, the EC has included cooperation on animal welfare in the negotiations on SPS issues.

### Environmental Impacts

Impacts on the stocks of water and soil will depend on the changes to agricultural production systems. Reductions in the intensity of production or complete agricultural abandonment, which is likely to occur in the agriculturally marginal areas (for instance uplands and mountainous regions) will decrease pressure on natural resources. In these areas, water supplies and quality could be ameliorated and the rate of soil erosion reduced.<sup>50</sup> Loss of competitiveness may encourage greater intensity of production in order to increase yield, but the overall effect on soil and water resources is expected to be small and beneficial.

Similar considerations apply to environmental quality. Policy interventions through Pillar II of the CAP (particularly the agri-environment programmes) seek to address any threats to environmental quality. The quality of water may improve in some areas through reduced use of agrochemicals, although in others there may be adverse pollution impacts associated with a decline in livestock farming and an increase in use of chemical fertilisers. The overall effect is not expected to be significant.

Concerns have been expressed that increased imports of Mercosur produce may increase the likelihood of plant diseases being introduced, particularly for citrus fruits<sup>51</sup>. EU phytosanitary standards have been designed to prevent impacts of this nature. The EC maintains regular surveillance of exporting countries' compliance with these standards, and so it is not anticipated that the EU-Mercosur trade agreement would entail a significant increase in risk.

### **Box 8: Food Standards and Safety Issues**

As regards the handling of consumer protection in the negotiation of an EU-Mercosur agreement, the Commission is committed to ensure that imported products meet at least equivalent standards to those applied to EU products. Based on the parameters put forward by the Commission at the EU Mercosur technical meeting in December 2004, the

<sup>49</sup> It is generally assumed that there are positive (win-win) outcomes between animal welfare and human health. However, there are instances of trade offs (win-lose) between animal welfare and human health (and the environment) (Passille and Rushen, 2005)

<sup>50</sup> The EU Water Framework Directive and the EU Action Plan for Soils will both result in policy measures to address threats to water and soils.

<sup>51</sup> EUCOFEL (2007)

EU included sanitary and phytosanitary standards as one of five issues that was needed in Mercosur to guarantee free circulation to EU operators or products of EU origin. Specifically, the Commission called for a bi-regional approach on SPS matters, and proposed the following minimum requirements to achieve this objective: (1) integration/harmonisation of SPS legislation and procedures for EU commodities imported into Mercosur (2) institutional provision (3) administrative capacity.

In response to the paper entitled 'elements for a possible agreement' submitted by Mercosur at the March 2006 EU-Mercosur meeting, the EU stated that it was committed to efforts to find solutions that reflect the interest of both parties. In particular, the EU is seeking intra-Mercosur harmonisation of internal SPS measures, but is willing to discuss transitional and practical arrangements to address the difficulties of Mercosur integration. exports to the EU are subject to various EU food product regulations. The Phase 1 Agriculture SIA predicted a significant increase in EU imports of beef and poultry from Mercosur as a result of trade liberalisation. Both products have been subject to EU SPS regulations. For example, the number of Brazilian farms cleared to export beef to Europe has been reduced to eighty four, reflecting the difficulties in meeting EU production standards on key issues of tracability, food safety and animal health controls and foot and mouth disease.

Increased competitive pressure on EU agriculture, particularly on beef, chicken and cereal production, will tend to increase the specialisation of production systems, reducing diversity of habitats. Agriculture specialization is expected to increase, with a concentration of production in some sectors, and a possible small decline in agricultural biodiversity. Agricultural abandonment could also reduce biodiversity of 'semi-natural' habitats such as hay meadows, but will provide opportunities for recolonisation of 'climax' vegetation. On the other hand a move to less intensive production systems (such as organic) could increase biodiversity. Once again, policy interventions such as the CAP agri-environment schemes will be available to reduce negative impacts.

For the potential impact on climate change, the case study for ethanol concluded that increased imports of sugarcane ethanol from Mercosur will have a beneficial impact on greenhouse gas emissions, subject to appropriate management of production in Brazil. If expansion were allowed to result in a direct or indirect increase in deforestation the impact could be negative. For beef production, the case study indicated that the combined impact in EU and Mercosur on greenhouse gas emissions will be neutral, except for the adverse effect of increased international transport and a small increase in overall production. For other agricultural products the impact of higher production in Mercosur and lower production in the EU is also expected to be neutral.

The modelling results support these findings. For full liberalisation of all goods and services they indicate that the production changes would reduce CO<sub>2</sub> emissions in the EU and Mercosur combined (including Venezuela) by less than 0.1%. This does not include emissions of methane, ammonia and nitrogen oxides, which are significant for cattle raising and other agricultural activities. Here too it is expected that an increase in Mercosur will be approximately cancelled by a corresponding decrease in the EU.

## Process Impacts

The agricultural component of the proposed EU-Mercosur trade agreement is judged to be highly consistent with principle 12 of the Rio Declaration, in promoting a supportive and open international economic system. There is however a potential conflict with Rio principle 8, for reducing and eliminating unsustainable patterns of consumption. Except in this area, the scenario is judged to be relatively neutral for the EU in respect of sustainable development principles.

In relation to consumption and production patterns, the scenario aims to accelerate economic growth in both the EU and Mercosur. To the extent to which it achieves this goal, it will add to the underlying processes which drive increasing consumption and associated wastes. Regulation in the EU is considered to be strong enough to prevent significant adverse impacts in the EU, but increased EU consumption will also have potential adverse impacts in Mercosur and globally. In order to achieve a sustainable balance between economic growth and environmental degradation, stronger global environmental regulation will be needed, along with stronger regulation in Mercosur. The EU-Mercosur trade liberalisation scenario adds incrementally to existing needs for stronger environmental regulation.

EU-Mercosur agricultural liberalisation is judged to be neutral in its influence on the EU's institutional capacity for strategic sustainable development planning.

The expected sustainability impacts of EU Mercosur trade liberalisation in the EU are shown in Table 9.

**Table 9: Sustainable development impacts of agricultural liberalisation in the EU**

| Impact                         | Countries / sectors affected  | Causal factors  | Factors affecting significance                    | Potential significance |           |
|--------------------------------|---|---|---|------------------------|-----------|
|                                |   |   |   | short term             | long term |
| Economic                       |   |   |   |                        |           |
| <u>Real income</u>             | All   | Lower consumer prices; efficiency gains; increased import competition | Long term gain depends on growth of other sectors | ↑↓                     | ↑         |
| <u>Employment</u>              | Areas of economically marginal production. Sugar, wheat, chicken, beef, fruit.  | Competition from Mercosur imports                                     | Rural development support                         | ↓?                     | ↓?        |
| <u>Fixed capital formation</u> | All   | Fall in land value and closure of facilities                          | Long term gain depends on growth of other sectors | ↓                      | ↑ ?       |
| Social                         |   |   |   |                        |           |
| <u>Poverty</u>                 | Areas of economically marginal production. Accession countries most vulnerable. | Fall in employment  | Social policies                                   | ↓                      | -         |
| <u>Health and</u>              |   |   |   | -                      | -         |

|                                  |  |  |   |    |    |
|----------------------------------|--|--|---|----|----|
| <u>education</u>                 |  |  |   |    |    |
| <u>Equity</u>                    | Less competitive small farms   | Fall in employment and rural livelihoods                         | Rural development support   | ↓  | -  |
| <u>Environmental</u>             |  |  |   |    |    |
| <u>Natural resources</u>         | Water and soils  | Reduced production   | Water Framework Directive and Action Plan for Soils                 | ↑  | ↑  |
| <u>Environmental quality</u>     |  |  |   |    |    |
| Water and air pollution          | Mixed effects  | Reduced production, higher intensity                             | Regulatory framework  | -  | -  |
| Plant diseases<br>Animal welfare |  | Lower Mercosur standards   | Border monitoring of EU standards and surveillance                  | -  | -  |
| Greenhouse gas emissions         | Global   | Benefit from Mercosur ethanol. Smaller adverse transport effects | Certification of biofuel production                                 | ↓↑ | ↓↑ |
| <u>Biodiversity</u>              | All, mixed effects, beneficial overall   | Specialisation, abandonment.                                     | Policy interventions in CAP reforms                                 | ↑  | ↑  |
| <u>Process</u>                   |  |  |   |    |    |
| SD principles                    | Positive for international cooperation, otherwise neutral except for increased consumption | Acceleration of underlying processes                             | Global environmental regulation and support for Mercosur regulation | -  | ↓  |
| SD strategies                    | Neutral impact   |  |   | -  | -  |

Legend: ↑ beneficial greater significant impact, ↓ adverse greater significant impact, ↑ beneficial lesser significant impact, ↓ adverse lesser significant impact, ↑↓ beneficial and adverse impacts likely to be experienced according to context (may be lesser or greater as above), - non-significant impact compared with the base situation.

## 3.2 SIA Findings for Manufacturing Sector

### 3.2.1 Mercosur

Industrial development has been a key strategy for development in Mercosur and manufactures now account for a growing share of Mercosur exports and imports. Brazil has the highest share of manufactures in total exports at almost 70 percent, compared to 51% in Argentina, 44% in Uruguay and 24% in Paraguay. In contrast, imports of manufactures dominate total imports in all four countries, exceeding 90% in all cases.

#### Economic Impacts

The Phase 1 CETM CGE modelling results show the static resource reallocation effects of trade liberalisation, with a shift from manufacturing to agriculture. . The estimates in

Table 10 show the percentage changes with the *full liberalisation scenario*, relative to the sector's output level in the base scenario.<sup>52</sup>

**Table 10: Changes in Industrial Sector Output, Full Liberalisation Scenario: Mercosur (percentage change in sector output)**

|                       | Argentina | Brazil | Paraguay | Uruguay |
|-----------------------|-----------|--------|----------|---------|
| <b>CETM model</b>     |           |        |          |         |
| Textiles and Clothing | -1.4      | -6.5   | -27.8    | -15.7   |
| Wood, Pulp, Paper     | -1.8      | -5.0   | -21.3    | -7.8    |
| Chemicals             | -0.1      | -5.1   | -20.1    | -5.4    |
| Metals                | -3.7      | -14.0  | -19.1    | -13.8   |
| Motor Vehicles        | -9.7      | -29.1  | -66.4    | -41.6   |
| Transport Equipment   | 4.0       | -17.6  | -63.0    | -35.7   |
| Machinery             | -15.3     | -24.3  | -57.8    | -38.0   |

Source: CETM Model

The CETM results are broadly similar to the results of other modelling studies of EU – Mercosur trade liberalisation (summarised in the Phase 1 Preliminary Overview Mid Term Report), in showing a relative decline in manufacturing sector output in Mercosur following EU - Mercosur trade liberalisation.

The CGE modelling results give an estimate of the equilibrium outcomes after liberalisation, assuming that fixed supply of resources are reallocated in response to the new comparative advantage market incentives. The CGE model assumes a fixed capital stock, which is redeployed across sectors in accordance with the static output changes that occur as a result of trade liberalisation. In the real world, however, an industry's response to trade liberalisation will be influenced by the effect which trade liberalisation has on longer term productivity growth and investment. Trade opening can induce greater competitiveness and export performance on the part of domestic manufacturing firms, allowing them to adjust positively to the new market opportunities. The long term gains that investment may have on economic growth would be dependent on technological development and the dynamics of both foreign and domestic firms.<sup>53</sup>

Multinationals will tend to invest in sectors with the most promising growth potential and will pick the companies in the host country which are likely to be the most productive. The removal of protective barriers will make investment in import substitution

<sup>52</sup> The full liberalisation scenario assumes the removal of all tariff and non-tariff barriers in agriculture and manufacturing and the removal of all barriers to cross border trade in services (mode 1) (The full liberalisation scenario used in the CGE modelling is described in detail in annex 1). The estimated impacts reported in the SIA are based on the 'further liberalisation' scenario: this represents the strongest probable implementation of the trade negotiations, including economic modelling of full tariff removal. Negotiating options for the actual trade agreement cover a range of intermediate scenarios, involving different degrees of liberalisation for each type of product or service, differing for each form of trade measure. (see section 1.2 above).

<sup>53</sup> The research literature and empirical evidence on the relationship between trade liberalisation, productivity, foreign direct investment and economic growth was summarised in Annex 2 ('Trade Liberalisation and Sustainable Development'), in the Phase1 Preliminary Overview Report, September 2007.

production less attractive, while at the same time increasing the attractiveness of those activities which have the potential to compete internationally and expand production for export markets.

European FDI accounts for a significant share of total FDI in the manufacturing sector in Mercosur. The main determinants of FDI inflows are the investment climate within the Mercosur countries and the potential for growth in the domestic and export markets. In the early 2000's European FDI diversified into the services sector in response to domestic market opportunities, but more recently, has switched back to investing in those parts of manufacturing where there is potential of export growth, such as automobiles. To the extent that investors continue to have confidence in Mercosur as a stable investment environment with potential for market expansion, the potential negative impact of trade liberalisation on manufacturing sector output will be moderated. But for other sectors which are unable to compete in the domestic market or as exports, the lowering of protective barriers will accelerate the underlying process of sectoral decline.

In summary, the short term impact of EU - Mercosur trade liberalisation on the manufacturing sector in Mercosur is expected to give rise to adjustment costs, particularly for labour. The CETM predicts percentage changes in sectoral employment similar to those for output (Table 11). The model follows the standard computable general equilibrium modelling approach and assumes that total employment is fixed at the national level. Workers from a declining sector are able to find work in an expanding sector, hence, the model allows only for the evaluation of inter-industry shifts in employment.<sup>54</sup> Transitional and persistent unemployment effects due to labour market constraints and the associated adjustment costs are not evaluated within a CGE modelling framework. In other words, CGE models tend to remain silent on employment effects such as moves into or out of disguised unemployment in very low productivity sectors, from or into formal employment in higher productivity, modern sectors within a country/region, or the inter-regional migration of labour.<sup>55, 56</sup>

**Table11: Changes in Employment, Mercosur (%) (Full Liberalisation scenario)**

|                       | Argentina | Brazil | Paraguay | Uruguay |
|-----------------------|-----------|--------|----------|---------|
| Textiles and clothing | -1.6      | -6.1   | -27.3    | -15.7   |
| Wood, pulp, paper     | -1.9      | -4.8   | -20.9    | -7.9    |
| Chemicals             | -0.3      | -4.5   | -19.8    | -5.5    |
| Metals                | -3.8      | -13.6  | -18.0    | -13.8   |
| Motor vehicles        | -9.9      | -28.6  | -66.4    | -41.6   |
| Transport equipment   | 3.9       | -17.2  | -63.0    | -35.7   |
| Machinery             | -15.4     | -23.9  | -57.3    | -38.0   |

<sup>54</sup> Changes in relative wages are used to maintain overall level of employment (and unemployment) constant.

<sup>55</sup> Ackerman, 2005

<sup>56</sup> The short term adjustment costs in employment may be significant, particularly if they are concentrated in particular sub-sectors and/or regions (OECD, 2005).



A time lag can be expected between declining employment in one area and a rise in another. Given the rigidities in the labour market and the high level of official unemployment in the urban sector in Mercosur countries,<sup>57</sup> the overall employment effects of trade liberalisation during the period of adjustment are expected to be negative, and may be significant if the level of liberalisation is faster than can be accommodated by the markets and any mitigation measures that are adopted.

The long term impact on industrial employment will be similar to that for output. However, the pressure to maintain cost competitiveness in international markets may accelerate the adoption of less labour intensive technology, with negative consequences for employment, particularly for unskilled labour. In contrast, trade liberalisation may increase the employment opportunities for skilled labour.

#### **Box 9: EU Mercosur Trade Liberalisation and the Automobile Sector in Mercosur**<sup>58</sup>

The impact of EU-Mercosur trade liberalisation on the output of the automobile sector in Mercosur can be expected to reinforce the existing trends towards global production chains and increased international competitiveness. In the short term, the vehicle manufacturing sub-sector is unlikely to change significantly in terms of its exports and imports with the EU. In the longer term, the lowering of import barriers can be expected to increase competition in the Mercosur market and imports from Europe may increase, as disposable income rises and consumer tastes change. The increased competition may also increase the pressure on local producers to diversify away from the dependence on domestic and Mercosur markets towards extra-Mercosur exports although this may require changes in product design which adapt the existing production of compact cars to the requirements in export markets.

For the parts sub-sector, trade liberalisation is expected to intensify the pressure on local producers, as vehicle manufacturing firms increase the proportion of imported parts used in vehicle production. The weakening of the linkages of assembly firms with local parts companies increases the need to raise efficiency levels in the parts sub-sector and to target export markets. However, export growth is constrained by the earlier dependence of the sector on producing parts designed for the local market.

The primary motive for the inflow of auto sector FDI in the 1990s was to supply the domestic market from local production. Here, the objectives of government policy and the multinationals were complementary, with foreign investors benefiting from various incentives provided by national and state governments. The key determinants of FDI for domestic market production are the size, stability and growth of the domestic market, the quality of the business environment that determines the costs of doing business in the country; and the soundness of macroeconomic conditions, including exchange rate policy and the regulatory controls on and other foreign capital transactions. The major exchange rate realignments in Brazil and Argentina in 1999 and 2002 improved the export

<sup>57</sup> 14% in Argentina, 12% in Brazil, 10% in Paraguay, 13% in Uruguay. Official figures on employment in developing countries typically understate the level of labour un- and under- employment.

<sup>58</sup> Based on the Phase 1 Automobiles Sector Study, Final Report, November 2007.

competitiveness of the automobile sector and encouraged MNCs to switch production towards export markets outside Mercosur. Car manufacturers announced major new investment projects in the mid-2000s, mainly in Brazil but also in Argentina, notably export oriented projects in compact cars.

In the short term, the reduction of tariff and non-tariff barriers is not expected to have a significant impact on the 'fundamentals' of FDI flows. In the long term, the removal of non-tariff barriers to trade and investment flows will contribute to an improvement in investors' judgements of the business environment for inward foreign investment in the automobile sector. The removal of non-tariff constraints on trade and investment in the automobile sector, and in particular, standards and technical regulations, will facilitate the global production networking and associated export and import of parts and services, which is now a dominant feature of the industry. It would also act as a 'signal' to European investors of a realignment of government policy towards raising the industry's productivity and international competitiveness as necessary conditions to establishing a sustained growth in automobile exports from Mercosur.<sup>59</sup> At the same time, the liberalisation of trade and investment flows in Mercosur is likely to further expose the weaknesses in the supplier sub-sector.

In recent years, the Brazilian auto parts industry has experienced a sharp contraction in domestic demand and in local technological development capacity as a result of changes in automobile makers' requirements, and the increased use of imported inputs as part of a global strategy aimed at ensuring international competitiveness. To the extent that trade liberalisation reinforces these underlying processes of globalization and international competitiveness in the automobile sector, the short term impact on the parts sub-sector may be less benign than for end of line automobile manufacturing. A reduction in tariff and non-tariff barriers on imports of parts will reinforce the trend towards the use of imported rather than domestically produced parts by the multinational automobile assembly companies. In the longer term, the parts sector will face increasing pressure as the automobile multinationals strive to maintain international competitiveness by global sourcing of parts, thereby reducing the existing dependence on local production linkages. For multinational parts producers, future investment will reflect 'follow client' strategies and locally owned SMEs producers of parts products will be increasingly vulnerable to changes in global sourcing by the manufacturing TNCs.

How might employment in the Mercosur automobile sector be affected by EU-Mercosur trade liberalisation? The new outward oriented development strategy of the 1990s and the increased globalization of production worldwide led to a FDI boom in the region. The impact of large FDI inflows on employment, however, was to a large extent disappointing, which can largely be explained by the form of investment.<sup>60</sup> Economic liberalization led to increased competitiveness and thus to restructuring strategies in order to increase productivity, which often involved rationalization measures and, as a result, labour shedding. In addition, FDI mainly went into low to medium labour-intensive sectors. Although capital-intensive industries, such as automobiles and chemicals, were major

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<sup>59</sup> The potential impacts of liberalising trade with the EU are likely to be different from the effects of multilateral liberalisation of the automobile sector. In the latter case, the Mercosur automobile sector would face domestic market competition from imports from other low cost emerging market producers.

<sup>60</sup> Ernst, 2005

recipients of FDI, these sectors experienced an overall decline in employment in the 1990s. On the other hand, they experienced a rise in productivity and competitiveness as well as a further export orientation of their products. Wages in FDI dominated sectors, including automobiles, rose above average in the manufacturing sector, especially with regard to skilled workers, which was mainly related to a rise in labour productivity.

In the longer term, however, the main influences on employment growth in automobiles will be the growth of the domestic and export markets and the trend in labour saving productivity. The removal of protection can be expected to reinforce the underlying pressures on employment in the automobile sector as firms continue to seek labour savings productivity gains and a reduction in the share of labour costs. The decline in employment due to productivity improvements will be offset by the growth in output for export markets where the productivity improvements raise the international competitiveness of Mercosur automobile exports. The trend towards global sourcing of parts could have an adverse impact on employment, although here also, the magnitude of the loss in jobs will depend partly on the capacity of the parts sector to improve its competitiveness through product redesign and production which can compete in international markets, allowing exports to replace the decline in demand from Mercosur auto producers for locally produced parts.

The labour force in automobiles is predominantly skilled and male. Wages are above the national average for manufacturing. The impact of trade liberalisation in the automobile sector is not expected therefore, to have a significant poverty impact. If labour is displaced by labour-saving technological change within the sector it can be expected to find alternative employment in other sectors where demand for skilled labour is growing.

Persistent poverty in Mercosur, as in most Latin American countries, is largely a distributive problem. Inequality in the distribution of income is high, and this inequality undermines the potentially positive impacts of growth on the poor, as well as hindering growth itself. Where growth has been achieved, its potential positive 'trickle down' impact on the poor, for example through low wage unskilled employment generation, has been reduced by the inequalities which are reflected in patterns of domestic market production and demand.

The long term process of productivity improvement and integration into global production export markets can be expected to stimulate improvement in labour and managerial skills in the automobile sector.

The potential environmental impact of liberalisation of the automobile sector will depend on the combined effect of scale, composition and technological change induced by trade liberalisation. EU-Mercosur trade liberalisation in the automobile sector is expected to reinforce the underlying trend within Mercosur towards greater openness and integration into the global production chains that characterise the industry. The inflow of FDI aimed at reducing the dependence on domestic market sales by increasing exports of vehicles and parts is likely to ensure a continuation of the upward trend in production which has been experienced since the early 2000s. The scale effect of trade liberalisation can therefore be expected, *ceteris paribus*, to be negative in terms of additional environmental costs related to production and consumption of motor vehicles.

The composition effect of trade liberalisation is not expected to be significant for the automobile sector, given its capacity to respond positively over time to the increased competitiveness pressures induced by trade liberalisation. The technology effect of trade liberalisation in Mercosur may be more significant for the automobile sector, if it leads to the adoption of environment-saving production methods, either through the increased imports of environmental goods and services or through imported technology embodied in foreign investment.

Brazil has been at the forefront in developing fuel technology of growing interest to the automotive industry and policy-makers worldwide. Ethanol technology is already mature in Brazil, and the country accounts for 38% of world ethanol production.. The shift towards bio-fuels has been encouraged by government regulation. In Brazil, the government has developed a programme to support bio-fuel production with the so-called ‘social fuel’ label. This was only available to mills that bought a minimum percentage of their source crops from small family holdings and poor farmers. 500 million litres of this type of bio-fuel was produced in 2005, and the volume of the special label fuel was growing.

Among Mercosur governments, Brazil is probably most advanced in its policies towards controlling emissions, dealing with solid wastes and chemicals, and other environmental concerns arising from vehicle use. A good example of this is the 20 year old National Programme for the Control of Automotive Emissions (PROCONVE), which reduced polluting emissions at source (the vehicle) significantly since its inception in 1985.

An additional environmental issue related to the automobile sector relates to the import of used tyres, which was prohibited in Brazil from 1991 (there was a special procedure available for tyre re-treaders). Tyres are difficult to discard since they do not bio-degrade making disposing of used tyres an important public concern. Brazil, like the EU, only allows tyres to be re-treaded once. The government argued that imports of used tyres only have a “half-life” where after they only added to the problem of their disposal. Although the EU complained about this to the WTO, Brazil argued that the used tyre import ban only sought to protect the environment and public health.<sup>61</sup>

### Social Impacts

CGE models by design are not well suited for poverty analysis due to their lack of disaggregated information at the household level and their inability to distinguish between poor and non-poor individual households. The CETM model gives estimates of the static equilibrium effects on skilled and unskilled real wages in each of the Mercosur countries. A significant rise in unskilled wages is projected for Paraguay. The effect in the other countries is small, including a small decrease in skilled wages in Argentina (potentially offset by trade facilitation measures). These changes are derived on the assumption that overall employment remains constant. If we allow for the decline in manufacturing employment during the adjustment period and the likelihood that, during this period of adjustment, many of the displaced workers will join the pool of urban unemployed, then any gain in wages by those remaining in employment is likely to be

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<sup>61</sup> Brazilian Ministry of Environment ([www.mma.gov.br](http://www.mma.gov.br)).

offset by the fall in income for the now-unemployed. Many urban households in Mercosur countries are on or below nationally recognized poverty levels. The impact of industrial trade liberalization on poverty within the manufacturing sector during the adjustment period is expected, therefore, to be adverse, although the negative impact on household incomes of manufacturing sector labour could be partly offset by any reduction in prices of consumption goods resulting from trade liberalization.<sup>62</sup> Longer term impacts may be more beneficial, if trade liberalization raises investment and the long run economic growth path and subsequent increases in incomes of poor households.<sup>63</sup> From the perspective of national poverty levels, the impact of trade liberalization is more difficult to predict.

Cross country evidence indicates that trade liberalisation has typically been associated with a marked decline in trade tax revenue<sup>64</sup> The direct fiscal impact of the removal of tariff barriers to imports of industrial goods as part of the EU Mercosur liberalisation would be to reduce government revenue, if this is not mitigated by levying the same amount of income by other means. About three quarters of the total can be expected to come from industrial liberalisation<sup>65</sup>. A reduction in social expenditure could then occur. Depending on the types of alternative taxes that are chosen, further social impacts would occur, if the incidence of their effects differed from those of the import tax which they replace. The short term impact of industrial trade liberalisation on expenditure in health and education might also be negative. Longer term impacts will depend on the ability of the industrial sector to respond positively to increased competition.

In addition to the potential impacts on employment and poverty discussed above, industrial liberalisation may have impacts on gender equity. These are considered unlikely to be significant for the industrial sector as a whole, although there may be significant differential impacts at the sub-sector level, where female employment may be concentrated. Trade liberalisation has in general tended to lead to increasing feminisation of the workforce, with effects on gender equality that have not been clear cut<sup>66</sup>. Reforms which draw more women into the labour force can coincide with persistent gender segmentation in labour markets, and specific policies are often needed in order to achieve greater gender equality. The short to medium term effects for EU-Mercosur liberalisation may differ from the more general case, with an overall movement out of industrial employment and into agriculture. Although some significant effects may occur for particular industries, the overall gender impact is expected to be relatively neutral.

### Environmental Impacts

Production levels are expected to decline in most manufacturing sectors, with the exception of the processed foods subsector. The principal environmental effects will occur through any consequent changes in pollution (primarily of water) and water consumption, which may have knock-on effects through pollution of aquifers or change in groundwater levels.

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<sup>62</sup> Barraud and Calfat (2006) estimate that trade liberalisation in Argentina will lower poverty levels, by reducing the prices of consumption goods and increasing the demand for labour in non traded sectors such as construction.

<sup>63</sup> However, economic growth is not a sufficient condition for poverty reduction.

<sup>64</sup> IMF (2005)

<sup>65</sup> Kowalski P (2005)

<sup>66</sup> UNRISD (2005)

The overall effect of the production changes is expected to be beneficial but small, with a possibility of localised effects that are adverse, but also small. The overall impact on biodiversity of industrial liberalisation in Mercosur countries is also expected to be non-significant.

Impacts will occur for air pollution as a result of the production changes. These are expected to be beneficial overall as a result of the overall fall in manufacturing production, but with the possibility of localised adverse effects from the increase in production of processed foods. These could be significant if regulatory regimes are weak or are unable to respond.

Little effect on greenhouse gas emissions and climate change is expected from the production changes, as these consist primarily of movements of production between the EU and Mercosur and also other countries. A significant adverse effect may however arise from the increase in international transport. For full liberalisation of manufactured and agriculture goods, this could amount to an increase in global CO<sub>2</sub> emissions of about 0.15%.

In the longer term, improvements in production technology can be expected to include reduced intensity of energy consumption and water use. Reduced energy consumption in production will partially counter increased consumption in international transport. However, except perhaps in particular areas where industrial use is a major factor and environmental stress is high, these effects are unlikely to be significant in relation to the general pressures on resources.

The beneficial environmental effects will be greatest where the production changes are largest and the current environmental performance is weakest, and will be maximised by strong policy responses to the opportunities for better regulation.<sup>67</sup> It should however be noted that if the goal of greater economic growth is achieved, with a large industrial component in the long term, the beneficial technology effects will be accompanied by adverse scale effects. This will add further to the need for stronger environmental regulation.

### Process Impacts

The proposed EU-Mercosur trade agreement is judged to be highly consistent with principle 12 of the Rio Declaration, in promoting a supportive and open international economic system. There are however potential conflicts with the Rio principles of reducing and eliminating unsustainable patterns of consumption (principle 8) and enhancing technology transfer (principle 9). Except in these areas, the scenario is judged to be relatively neutral in respect of sustainable development principles.

In relation to consumption and production patterns, the scenario aims to accelerate economic growth in both the EU and Mercosur. To the extent to which it achieves this goal, it will add to the underlying processes which drive increasing consumption and associated wastes. Stronger environmental regulation will therefore be needed, to achieve

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<sup>67</sup> See section on environmental services, below.

a sustainable balance between economic growth and environmental degradation. The EU-Mercosur trade liberalisation scenario adds incrementally to this general need.

In relation to technology transfer, the scenario has mixed effects. The anticipated decline in industrial production will initially tend to inhibit technology transfer rather than enhance it. However, by exposing domestic industry in Mercosur to greater competition, liberalisation will enhance incentives for investment in internationally competitive technologies. The relative importance of these effects will be influenced by other aspects of domestic industrial policy.

The influence of EU-Mercosur trade liberalisation on institutional capacity for strategic sustainable development planning is judged to be neutral.

The significance of the impacts of trade liberalisation on the manufacturing sector in Mercosur are shown in Table 12 in terms of the core and process indicators.

**Table 12: Summary of Sustainability Impacts for Manufacturing Sector: Mercosur**

| Impact                         | Countries / sectors affected                                      | Causal factors                                   | Factors affecting significance  | Potential significance |           |
|--------------------------------|---|--|---|------------------------|-----------|
|                                |   |  |   | short term             | long term |
| Economic                       |   |  |   |                        |           |
| <u>Real income</u>             | All   | Short term decline in industrial output          | Domestic industrial development policy  | ↓                      | ↑?        |
| <u>Fixed capital formation</u> | All   | Output changes at firm level<br>New investment   | Investment climate<br>Firm dynamics   | —                      | ↑?        |
| <u>Employment</u>              | All   | Reduction in output                              | Labour market flexibility, transferability of skills                                  | ↓                      | ↑?        |
| Social                         |   |  |   |                        |           |
| Poverty                        |   | Loss of employment and household income          | Informal sector income generation opportunities, development policy, long term growth | ↓                      | ↑?        |
| Health and education           |   | Decline in government revenue from trade tariffs | Tax reforms   | ↓?                     | -         |
| Equity                         | Gender impacts  | Mixed effects for individual sub-sectors         | Employment structure  | -                      | -         |
| Environmental                  |   |  |   |                        |           |
| Biodiversity                   | Minor effects in both directions, small beneficial overall effect | Water consumption and pollution                  | Effective regulation  | -                      | -         |
| Environmental quality          | Beneficial overall impact on air and water                        | Reduction in industrial sector                   | Improvements in pollution control   | ↑                      | ↑         |

| Impact            | Countries / sectors affected  | Causal factors                          | Factors affecting significance                             | Potential significance |           |
|-------------------|---|---|--|------------------------|-----------|
|                   |   |   |  | short term             | long term |
|                   | pollution, possible local adverse effects<br><br>Climate change   | activity<br><br>International transport | technology<br>Changes in output mix<br>Carbon trading etc. | ↓                      | ↓         |
| Natural resources | Overall beneficial effect on water and energy   | Reduction in industrial sector activity |  | ↑                      | ↑         |
| Process           |   |   |  |                        |           |
| SD principles     | Positive for international cooperation, otherwise neutral except for consumption and production and technology transfer | Acceleration of underlying processes    | Environmental regulation and technology cooperation        | -                      | ↑         |
| SD strategies     | Neutral   |   |  | -                      | -         |

The following symbols are used in the tables to show impact significance

- ↑ positive greater significant impact
- ↓ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation



### 3.2.2 European Union

#### Economic Impacts

The CGE model predictions for EU manufacturing show modest gains in output and exports. In turn, about half of these gains are due to improvements in trade facilitation. Real income can be expected to increase, as a result of increased production for export to Mercosur, and from the returns on investments made in Mercosur. Employment is also expected to increase. There is unlikely to be a significant impact on investment in Europe

The more significant gains to the EU from trade liberalisation in manufacturing are likely to be long term, linked to the investment flows to Mercosur. There have been significant levels of EU investment in the manufacturing sector in Mercosur and the EU is now the largest investor in the Mercosur region. The majority of European FDI is directed to Brazil. EU investment is located in areas as diverse as telecoms, energy, financial services, the automotive industry, the agro-industry and the retailing sector. Trade liberalisation may give added assurance to European investment on the investment environment in Mercosur, but is unlikely to dominate the influence of macroeconomic and political stability.

#### **Box 10: EU Mercosur Trade Liberalisation and the Automobile Sector in the EU**

The European automotive industry is the largest automotive producing region in the world. The industry comprises about 27% of the world's production of automobiles and approximately 7% of the manufacturing sector in the EU.<sup>68</sup> In total, the industry accounts for about 7% of total European manufacturing employment.

The automobile industry has a complex value chain and about two thirds of the value added in vehicle production comes from automotive suppliers while the retail and repairs sector comprises 350,000 small and medium sized enterprises with a turnover of 529 billion euros and employing about 2.5 million people.<sup>69</sup>

The automotive industry is characterised by increasing competition on a world-wide scale, prompting all leading European automotive manufacturers to operate in all major regions of the world. Competition in such a diverse market requires high productivity, competitive pricing, product reliability and diversification, as well as technological innovation.

The further opening of the Mercosur automobile market to European automobile companies is likely to increase investor confidence, and reinforce the recent increase of European FDI into the Brazilian and Argentinean automobile sectors. The recent upsurge in investment in the automobile sector has been directed towards production for exports, as part of the global production strategies being followed by the major automobile TNCs. The phased liberalisation of trade is expected, therefore, to facilitate the shift towards

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<sup>68</sup> EC, 2007b

<sup>69</sup> EC, 2007b

increased international competitiveness of the domestic assembly and parts sectors in Brazil and Argentina, and to result in a continued growth of exports from Mercosur to third markets. EU exports of automobiles may increase as a result of liberalisation, but the growth is likely to be in the upper and middle range cars and specialists vehicles for which the price elasticity of demand in Mercosur is lower than for 'popular' brands supplied by Mercosur production.

### Social Impacts

There are unlikely to be any significant social impacts resulting from trade liberalisation of manufactures trade with Mercosur. There are adjustment costs in the EU industrial sector resulting from underlying shifts in global competitiveness and comparative advantage; however, the additional impact of EU – Mercosur liberalisation in non – agricultural goods trade is unlikely to be significant.

### Environmental Impacts

The change in production resulting from increased exports on non-agricultural goods to Mercosur will give rise to increased environmental scale effect pressures. However, given the effective implementation and strengthening on environmental regulation on industrial sector activities, these additional environmental effects are not expected to be significant.

The expected sustainability impacts for non-agriculture goods sector in the EU are shown in Table 13

**Table 13: Summary of Sustainability Impacts for Manufacturing Sector: EU**

| Impact                  | Countries / sectors affected | Causal factors  | Factors affecting significance | Potential significance |           |
|-------------------------|------------------------------|---|--------------------------------|------------------------|-----------|
|                         |                              |   |                                | short term             | long term |
| Economic                |                              |   |                                |                        |           |
| Real income             | All                          | increase in production of exports<br><br>Increased investment in Mercosur | Investment climate             | ↑                      | ↑         |
| Fixed capital formation | All                          |   |                                | –                      | -         |
| Employment              | All                          | increase in output  |                                | ↑                      | ↑         |
| Social                  |                              |   |                                |                        |           |
| Poverty                 |                              |   |                                | -                      | -         |

| Impact                | Countries / sectors affected | Causal factors | Factors affecting significance | Potential significance |           |
|-----------------------|------------------------------|----------------|--------------------------------|------------------------|-----------|
|                       |                              |                |                                | short term             | long term |
|                       |                              |                |                                |                        |           |
| Health and education  |                              |                |                                | -                      | -         |
| Equity                |                              |                |                                | -                      | -         |
| Environmental         |                              |                |                                |                        |           |
| Biodiversity          |                              |                |                                | -                      | -         |
| Environmental quality |                              |                |                                | -                      | -         |
| Natural resources     |                              |                |                                | -                      | -         |
| Process               |                              |                |                                | -                      | -         |
| SD principles         |                              |                |                                | -                      | ↑         |
| SD strategies         |                              |                |                                | -                      | -         |

The following symbols are used in the tables to show impact significance

- ↕ positive greater significant impact
- ↘ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↕↘ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation

### 3.3 SIA Findings for Services Sector

The performance of the services sector is an important contributor to economic growth. The availability of efficient financial services, for example, has been shown to be a key input to economic advancement. Infrastructural services are also an essential factor for rapid economic growth. Environmental services are increasingly important in managing environmental outcomes of economic growth. Similarly, the competitiveness of firms in open economies is determined in part by access to low-cost and high-quality telecommunications, transport and distribution services, and financial intermediation.

The lowering of barriers to trade in services can contribute significant static efficiency gains in terms of allowing foreign suppliers to provide lower cost services to the domestic market. Increased openness to international trade in services also offers large potential benefits through dynamic effects on overall economic performance. Services liberalisation can also deliver significant gains in terms of sustainable development and

poverty reduction, by raising investment in basic infrastructure and improving the quality of the services delivered.<sup>70</sup>

The EU has adopted a GATS approach to services liberalisation in its regional and bilateral trade negotiations.<sup>71</sup> In principle, GATS covers all commercial tradable services, with the exception of some aspects of air transport such as traffic rights, and services supplied under government authority. The WTO Secretariat has drawn up a list of twelve groups of service sectors: business (including professional and computer) services; communication services; construction and related engineering services; distribution services; educational services; environmental services; financial (insurance and banking) services; health-related and social services; tourism and travel-related services; recreational, cultural and sporting services; transport services; other services not included elsewhere.

The share of services in GDP in the EU15 has risen steadily since 1995 to over 70% in 2004. The share of services in Mercosur averaged just over 50% in 2004. Over the period 2000-2005, EU25 services exports grew by 11% per annum, while those of Mercosur grew at 8% per annum. In 2005, the total value of services exports was \$1233 bn., compared to \$3988bn merchandise exports.<sup>72</sup> For Mercosur, services exports were \$23bn in 2005, compared to merchandise exports of \$163bn.

The composition of the services sector in Mercosur shows some variation between countries. In Brazil, finance, insurance, real estate and business services is the largest services sub sector contributing 42% of total services sector output. In Argentina and Uruguay, the finance, insurance, real estate and business services subsector is again the largest subsector, contributing 34% and 44% respectively, to total services sector output. In Paraguay, wholesale and retail trade, hotels and restaurants is the single largest subsector (45.6%).

The EU-Mercosur bilateral negotiation on reciprocal liberalization of trade in services began when the EU presented, in July 2001, the first draft of the proposal on Services Chapters.<sup>73</sup> By 2003, both parties had agreed on the methods and modalities of the agreement. The objective of the agreement was to achieve a ‘comprehensive and balanced level of liberalization in services with substantial sectoral coverage that strengthens transparency between stakeholders and is in concordance with the existing GATS commitments’. Both parties have adopted GATS commitments as a starting point for bilateral discussions, hence only service liberalization that goes beyond the existing GATS framework would constitute preferential access at the bilateral level.

The CETM modelling study predicts that services trade liberalisation would account for about 8% of the real income gains in Mercosur.<sup>74</sup> The estimates of the gains from services liberalisation are large because protection levels are high in the services sector, and services make up a growing share of trade. For the Mercosur countries the gains will accrue mainly from the efficiency and competitiveness gains in the domestic market

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<sup>70</sup> Adlung 2007

<sup>71</sup> As opposed to a NAFTA approach which is based on a negative list scheduling modality.

<sup>72</sup> WTO, 2006

<sup>73</sup> Pena, 2005

<sup>74</sup> Mode 1 only was covered in the model estimates

that result from increased imports of services.<sup>75</sup> However, trade liberalisation does not in itself create a competitive domestic market and the anticipated welfare gains will be less where the domestic market is highly imperfect or monopolistic.

Liberalisation within the EU-Mercosur agreement is expected to lead to greater competition from EU providers in Mercosur, particularly in banking, insurance, telecommunications, computer and related services, distribution services, environmental services and construction and engineering services. Exports of services from Mercosur to the EU are less significant although there is potential for growth, particularly in mode 4 (movement of people) professional labour.<sup>76</sup>

The exposure of Mercosur's services industries to foreign entry and competition can be expected to encourage investment in establishing a commercial presence on the part of EU companies. However, the recent downturn in private foreign investment in the infrastructure sector in Latin America has highlighted the importance of regulatory and contractual credibility for foreign investment decision-makers.

Domestic investment in services provision may also increase over time, as local firms establish an export capacity in services sector activities. A growing number of Mercosur service companies have acquired technological and services capacities, either from participating in joint ventures in their own countries, or in some cases, including Brazil, based mainly on indigenous knowledge and experience (Zarrilli, 2003).

The impact of services liberalisation has raised concerns as to potential adverse social impacts in the areas of utilities services. Private sector involvement may result in increased prices (to ensure financial viability) or a concentration of investment and provision in areas of high population or income. As a result, if policies to ensure universal service at affordable prices are not put in place as part of the regulatory framework, the access of the poor to essential services may not improve with increased private sector participation.<sup>77</sup>

The EU is expected to gain from increased service exports, particularly in the environmental services, professional and business services and financial services sub-sectors, as EU companies gain improved access to the Mercosur market. The CETM model predicts that services liberalisation would contribute 15% of the total real income gains to the EU from full liberalisation of EU - Mercosur trade.

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<sup>75</sup> There may be increased exports in certain sectors, such as construction, where Mercosur firms have established a comparative advantage. Exports of services personnel under mode 4 is another area of potential export growth.

<sup>76</sup> Valladao and Guerrieri (2006)

<sup>77</sup> Kirkpatrick et al (2006); Kirkpatrick and Parker (2005)

## Service Sub - Sectors<sup>78</sup>

### 3.3.1 Financial Services

The EU-Mercosur negotiations aim for additional commitments for liberalisation of trade in financial services beyond those that have been made through the WTO under GATS. GATS defines financial services as insurance and insurance-related services, and banking and other financial services (excluding insurance). Insurance and insurance-related services include direct insurance (including life, non-life and co-insurance); reinsurance and retrocession; insurance intermediation (such as brokerage and agency); and services auxiliary to insurance (such as consultancy, actuarial services, risk assessment and claim settlement services). Banking and other financial services cover all other financial service activities and auxiliary services related to them.

Within the EU the integration of financial services markets has been progressing across the board, but at a very different pace for different products and end-users. Wholesale markets are generally characterised by a high level of integration, while retail financial markets remain nationally fragmented. A Commission White Paper of 2005 set out objectives in financial services policy for the period to 2010, with emphasis on financial integration and increased coherence and consistency in regulation and supervision. A review carried out in 2007 recognises that greater integration can strengthen competition and offer better opportunities for financing and risk diversification, but identifies risks associated with corresponding structural changes in the financial system. In parallel with measures for increased convergence within the EU, it therefore calls for the development of adequate safeguards to ensure financial stability.

The Mercosur countries have suffered from several financial crises in the past decade. These have had significant consequences for their financial systems, which vary from country to country. Many banks were closed, merged, recapitalised or privatised, and restructuring led to a boom in foreign participation (mostly European). Foreign investment regimes have been significantly liberalised in the last 15 years, and are now considered to be conducive to attracting large foreign investment. Significant constraints do however remain.

The SIA for the financial services sector made use of three case studies to assess the potential impacts on sustainable development of further liberalisation between the EU and Mercosur.

For the Mercosur countries, the static economic welfare gain from the liberalisation of trade in financial services is small, but larger effects are expected from long term dynamic effects on economic growth. This is expected to make a significant long term contribution to reducing poverty. A short term decline in domestic financial services output is expected, but except in Paraguay the impact is small and likely to be countered in the longer term as domestic providers become more competitive. The decline in output projected for Paraguay is subject to a high degree of uncertainty, but could be large enough to be of major significance to the small domestic financial services industry.

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<sup>78</sup> The screening and scoping exercise that was undertaken at the inception of Phase 2 identified three service sub sectors for detailed assessment: financial services, professional and business services and environmental services. The detailed assessment for these three subsectors was reported in the Phase 2 Overview Mid Term Report.

The principal environmental impact of financial services liberalisation comes indirectly from the expected increase in economic growth. This would intensify the need for change in unsustainable patterns of consumption and production. No significant direct environmental impacts are identified in either direction.

Financial services liberalisation can have either a beneficial or an adverse effect on risks of financial instability, depending on the effectiveness of regulatory mechanisms. The potential benefits of liberalisation, however, could be more than outweighed if the risk of instability were allowed to rise. Effective mitigation measures may therefore be necessary in order to avoid major adverse effects in all the Mercosur countries and, to a lesser extent, in the EU.

For the EU, financial services providers stand to gain, with a small static economic welfare benefit. Social impacts are small but also beneficial. As in Mercosur, the potential benefits of liberalisation could be more than outweighed by increased risks of financial instability. The risk is smaller than in the Mercosur countries, but could result in significant adverse effects unless countered by effective mitigation measures.

### **3.3.2 Professional and Business Services**

Trade in ‘Miscellaneous Business, Professional and Technical’ services is an important category of EU-Mercosur total trade in services, accounting for 25% of EU imports from Mercosur and 10% of exports. EU – Mercosur exports and imports are almost equal with exports accounting to euro 1.351 billion and imports equal euro 1.344 billion in 2006. The aggregate figures for EU-Mercosur business service trade mask significant differences in pattern of trade between individual Southern Cone members and EU. For example, Argentina has a trade surplus in ‘Miscellaneous Business, Professional, and Technical’ services whereas Brazil has a deficit, Uruguay’s trade in Business and Professional Services with the EU is much smaller than the other two partners and accounts to a little over euros 90 million. For EU-Mercosur trade in ‘Computer and Informational Services’, the EU had a significant trade surplus (euro 195.8 million in 2006).

#### **Box 11: Trade in Business and Professional Services**

The OECD defines business services to include computer and related services, research and development and other business services. (ISIC Rev. 3 categories 72, 73 and 74).<sup>79</sup> The other business services category (74) represents services such as advertising, architectural, engineering, legal, accounting and business management services, among others.

Business and Professional Services have become an integral part of liberalization of international trade in services as these services have been increasingly important as a share of GDP for both developed and developing countries and as a share of total trade in services (OECD, 1999). The strong growth in international trade in business and professional services has been driven by several factors, including, the general shift towards

<sup>79</sup> Leshner and Nordas (2006)

services in the economy, the rise of the knowledge based economy, the need for greater flexibility within firms, specialisation and increased division of labour in many areas, outsourcing by established firms, and the trend towards smaller production units and firms. Professional services are of particular importance for economic development, in terms of both their contribution to the building up of infrastructure (engineering, architecture), and the creation of an investment and business friendly environment (legal and accounting services). Granting market access for these services can be important for attracting FDI and for promoting the transfer of knowledge (OECD, 2004). Furthermore, the convergence of computing and lower-cost international telecommunications has turned data into a commodity that can be moved around the globe instantaneously. The processing of a range of non-core service functions, including routine administration tasks, customer service and technical support is increasingly gravitating to places where it can be performed most efficiently. Out-sourcing and back office services, covering computer and related, business, professional and financial services are key areas of export interest. ICT has created real opportunities for many developing countries by dramatically reducing the cost of transportation, and thus enhancing their comparative advantages. The relatively low cost of highly skilled labour and improvements in telecommunications means that this is clearly an area for potential future growth (OECD, 2004).

The main obstacles for free flow of services include, (1) imposition of national technical standards; (2) inability to practice without a licence from professional body, or lack of mutual recognition of professional qualifications; (3) requirements to have a specific legal form, or difficulties with administrative regulation in setting up locally; (4) the absence of transparency in regulation and their implementation. Furthermore, the restrictions on forming multi-disciplinary professional service firms are also seen as an important barrier developing corporate structures in the sector. Such professional services barriers are particularly important in Accounting, Auditing, Tax Service and Engineering Related Consultancies. (EC, 2001, 2006).

In Brazil, Article 22 of the Constitution gives the Union the exclusive power to legislate on the practice of professions. No professions are reserved for nationals, however, foreigners must meet certain requirements established by law to exercise in Brazil (WTO, 2005). For accounting, auditing, and bookkeeping, commercial presence is bound only if a foreign supplier cedes its name to Brazilian professionals, to constitute and exercise full participation in a new legal person within Brazil. Brazil's Schedule refers to special registration requirements for accountants who wish to audit companies such as financial institutions and savings and loans associations, and Brazilian accounting and auditing standards must be followed. For architectural and various engineering services, commercial presence depends on foreign service suppliers joining Brazilian service suppliers in a specific type of legal entity (*consórcio*), where the Brazilian partner must maintain the leadership. For example, foreign participation in production of advertising services is limited to one third of the footage of advertising films; larger participation is conditional on the use of Brazilian nationals and domestic production-house facilities (WTO, 2005).



In Argentina under Decree No. 2293/92, the freedom to exercise a profession is subject only to the requirement of a single registration, where appropriate. However, those professions whose exercise could place the health, safety, rights, property or education of the population directly at risk are regulated by the State. Twenty-four professions have been declared to be of public interest and must be periodically accredited by the National Evaluation and University Accreditation Commission (CONEAU). These include medicine, pharmacy, biochemistry, veterinary science, architecture, dentistry and psychology, together with 18 engineering specialties. According to the authorities, there are no professions reserved for Argentine nationals (WTO, 2006). Under Law No. 24.521, for foreign diplomas (whether awarded to Argentine nationals or to foreigners) to be recognized in Argentina and authorize the exercise of a professional activity they must have been revalidated by a National University (WTO, 2006).

Uruguay has no general regulations on the exercise of professions. In Uruguay, the professions are regulated through approval of the study programmes followed in order to obtain a qualification and compliance with a number of legal standards that to a greater or lesser extent control the exercise of specific professions. The revalidation of professional qualifications from abroad is governed by the Regulation on the Revalidation and Recognition of Qualifications, Academic Grades and Foreign Study Certificates. Academic grades, professional qualifications and study certificates issued by foreign institutions may be revalidated or recognized by the Central Administrative Council of the University of the Republic, subject to certain conditions (WTO, 2006).

Similar situation occurs in accountancy services. Access to the Uruguayan market for accountants trained abroad requires professional accreditation, revalidation of their professional qualifications and registration in Uruguay. Foreign accounting firms may become established and offer services in Uruguay. Law No. 12.802 provides that balances must be certified by a chartered accountant and must be in accordance with international accounting rules (WTO, 2004).

Mode 4, covering the movement of people ('natural persons') is a contentious area, since labour market regulation and wider national immigration controls place inevitable constraints on this form of liberalisation. There is scope to extend the liberalization of business and professional services to include Mode 4 delivery to Mercosur. At the same time many EU-based multinationals would prefer greater freedom to locate key personnel in Mercosur countries. Greater allowance for contract-based supply could pave the way for temporary access by the individual (and typically higher-skilled) service supplier. This could also provide a means of addressing the temporary admission of teams of less skilled workers, such as those engaged in construction or environmental services (Pena, 2005).

The potential impacts of trade liberalisation of professional and business services can be categorised into short term, intermediate and longer term effects (EC, 2001) The first potential effect of removal of barriers may be an increase in cross-border demand and/or a freeing up in cross border supply. Increased competition is likely to put pressure on business service providers to reduce prices and improve quality. Existing 'business models' may be able to accommodate these effects (e.g. by reducing profit margins) but in some cases, changes in corporate strategies and structure may be necessary to remain competitive.

For the Mercosur countries, the economic impact of the liberalisation of professional and business services trade with the EU is expected to be positive. Liberalisation of mode 1 will allow Mercosur professionals to supply services to the European market, for example, Argentina is already developing mode 1 provision of legal services based on lawyers educated in Europe and fluent in one or more Community languages but based in Argentina. The increased presence of EU services providers in the Mercosur market can be expected to improve price and quality competition, putting pressure on local providers. In the short term, there may be some reduction in demand for locally provided services, as local firms adapt and restructure to compete with EU service providers. In the longer term, Mercosur firms will gain through increased efficiency and competitiveness which will in turn, stimulate the growth in Mercosur exports of services. There are not expected to be any significant environmental or social impacts of EU Mercosur liberalisation in the professional and business services sub-sector.

For the EU, the economic impact of EU Mercosur business services trade liberalisation is also expected to be positive, as EU companies increase their presence in the Mercosur market. In the short and medium term, EU companies can be expected to increase market share by competing with local suppliers, particularly in quality. Over time, the learning externalities linked to technology transfer will benefit Mercosur companies. As local firms gain in international competitiveness, they will increasingly compete with EU companies in the EU market and third country markets. There are not expected to be any significant environmental or social impacts linked to EU Mercosur trade liberalisation.

### **3.3.3 Environmental Services**

The Organization for Economic Co-operation and Development (OECD) and Eurostat define the environmental industry as: “activities which produce goods and services to measure, prevent, limit, minimize or correct environmental damage to water, air and soil, as well as problems related to waste, noise and ecosystems”. The definition serves as a basis for an indicative list that extends across all environmental media. It includes goods and services “which provide environmental protection in different domains: water, solid waste, air, soil, noise, natural resources, and miscellaneous services” (OECD, 2001) and classifies those under three broad rubrics: pollution management, cleaner technologies and products, and resource management (Vikhlyayev, 2003).

The estimated total turnover of eco-industries in the EU-25 is €227 billion, of which €214 billion corresponds to the EU-15 area. The total turnover in 2004 can be split into 64% for pollution management and 36% for resource management activities. (PwC, 2006). The environmental market size in Mercosur is only a fraction of the European market. In 2004 Brazil’s EGS market accounted to \$6.6 billion and the Argentinean one to \$2.2 billion. However, the market has grown rapidly in Mercosur, by 11% in Brazil and 10% in Argentina in 2004. The market for environmental services is expected to continue to grow rapidly, particularly in areas such as water and wastewater treatment, waste management, air pollution control and environmental monitoring and instrumentation. Brazil is the main market for both environmental goods and services in Mercosur. The Brazilian-German Chamber of Industry and Commerce estimated foreign investment in environmental technology in Brazil at USD 3 billion in 2002. The main product areas were equipment, engineering and consulting services, and instrumentation associated with pollution control and clean-up. The investment in the industry over 1999-2004 is

estimated at USD 10-15 billion and projected that the total would reach USD 42 billion by 2010 (OECD, 2007b).

#### **Box 12: The Environmental Goods and Services Sector**

The global environmental market (including environmental goods and services) has increased rapidly in recent years, with the EC, Japan and the United States account for about 65 per cent of annual revenues. The traditional environmental infrastructure services of water, sewage and solid waste management represented over 80 per cent of the environmental services market, although environmental non-infrastructure and support services are becoming more significant. Most trade in environmental services takes place through commercial presence (mode 3) with the accompanying presence of natural persons (mode 4).

Traditionally, environmental services have been considered mainly in relation to the operation of infrastructure facilities to provide water and waste treatment services, provided by publicly owned utilities. However, over the past two decades, trade in environmental services have grown as a result of the adoption of policies aimed at encouraging private sector participation in the supply and management of environmental services. Private participation in the water and sanitation sector in developing countries has been predominantly by foreign companies. While private sector participation in water services has been associated with a range of contractual arrangements, in practice, contracts under which private firms provide the services but government remains the ultimate owner of the water system and may remain responsible for some new investment, are commonplace. While the forms of private participation in the water sector vary in the allocation of risk, duration of the arrangement and assigning of asset ownership, all involve some form of contract with, or regulation by, the public sector.

If a government decides to involve private firms, including foreign ones, it is desirable to establish a regulatory framework which can control for inefficient monopoly behaviour. Where the service is a basic good such as water for household use, the case for regulation is reinforced by the need to ensure that the welfare and social objectives for the sector are met. Effective regulation achieves the overall welfare goals set down by the government for the regulator. Welfare goals will typically include economic, social and environmental objectives. In the developing country context, poverty alleviation and distributional objectives will be given a greater weighting than in developed countries. For example, expanding water services to communities and households that are currently inadequately supplied will often be an important regulatory goal in lower-income countries. This suggests that regulation of the water sector in developing countries may face a greater dichotomy than in developed countries between promoting economic and social goals. What is deemed regulatory ineffectiveness in one context, for instance, a failure to remove cross-subsidies that favour the poor, may not be in another context where poverty reduction is a primary goal of public policy. In the case of the water sector, there will also be environmental considerations to be built into the regulatory interventions.

At the same time, governments need to provide regulatory and contractual certainty to the private operators, if the inflow of private investment to the environmental services sector is to be sustained. The recent experience in some countries, including Argentina, of annulling or revising concession agreements, has had a negative impact on investors' confidence.

Mercosur – EU trade in environmental goods and services has increased in recent years and currently accounts for nearly \$4.5 billion. In the years from 2002 to 2007 EU's export of EGS to Mercosur have risen from slightly above \$1 billion to nearly \$3 billion, highlighting the EU's competitiveness in this sector. Brazil is the main recipient of EU exports in the sector and accounts for almost 80 per cent of Mercosur's imports. Argentina accounts for over 17% of Mercosur's imports with Uruguay and Paraguay together accounting for the remaining 3%.

The importance of Brazil as the main EU partner in EGS trade is evident on the export side, with Brazil accounting for 95.3% of total Mercosur exports to EU. Argentina accounts for the remaining 4.5% of export with the share of exports of the last two members of Mercosur – Paraguay and Uruguay – being negligible at less than 0.1%.

Liberalization of trade in environmental services within the context of EU-Mercosur Association Agreement involve negotiations on mode 3 (commercial presence) and mode 4 (temporary movement of natural persons). Commercially meaningful liberalization of environmental infrastructure services requires market access in environmental support services such as construction, engineering, legal, consulting, etc., where mode 4 is an increasingly relevant factor.

Liberalisation of environmental services has direct implications for national regulatory policy (OECD, 2005). Liberalising trade in environmental services, particularly services that require long-term investments in plant and equipment, may require new regulatory tools, including those relating to pricing and service standards. This is particularly necessary in the case of water delivery and waste water management services, which there are likely to be concerns relating to the potential environmental and social impacts (Kirkpatrick, 2006).

For the Mercosur countries, the economic benefits of EU Mercosur trade liberalisation in environmental services are likely to be positive in the long term, as competitive pressure and technological transfer induce productivity and competitiveness of domestic firms. This will support the growth in Mercosur exports, particularly to third markets. The environmental impacts will be positive as environmental goods and services are adopted for use in domestic productive activities. Environment gains will accrue through access to air quality protection, remediation services for contaminated land and water, noise abatement, and services to protect biodiversity and landscape. The social impacts are likely to be dependent on the effectiveness of regulatory policy in ensuring that access and affordability objectives are met by private sector service suppliers, particularly in the water and wastewater sector.

For the EU, the economic impacts are expected to be positive as European companies expand their share of the Mercosur market by increased commercial presence. The environmental and social impacts in the EU are unlikely to be significant.

### **3.3.4 Other Services Sub-Sectors**

#### Telecommunication Services

In Brazil, the telecommunication sector accounts for 2.7% of GDP in 2003. In 2006, there were 38.8 million fixed telephone lines and mobile density reached 59% with 99.9 million mobile subscribers.<sup>80</sup> Since the recent deregulation of the telecommunication services competition has emerged in the long-distance and mobile telephony, but not in the local fixed telephony. The sector is organized and regulated through General Telecommunication Law passed in 1996. Article 18 of that law provides the Executive Branch the right to limit foreign participation in the sector. Companies that apply for authorisation to supply services in the fixed telephony must be constituted in Brazil under domestic law, with offices and administration in Brazil<sup>81</sup>. As the result of this restriction Brazil has no GATS commitments in telecommunication in force.

In 2005, the telecommunication sector in Argentina accounted to 5.4% of GDP. Total teledensity in 2006 (fixed telephones plus mobiles) was 85%. In November 2000, Argentina liberalized its market after which all national and international telephony was offered on a competitive basis as a consequence of implementation of the Fourth Protocol of GATS. Decree No. 764/2000, liberalizing the telecommunications market, established a new regulatory framework which guarantees equality and freedom of trade and industry in the telecommunications market, with no restrictions on the participation of foreign capital. However, the situation of legal duopoly allowed companies to develop dominant positions: strength in facilities (networks), in services (telephony in all its forms, data transmission), market concentration (many captive customers) and financial resources (monopoly income).<sup>82</sup>

The telecommunication sector in Uruguay accounted for 3.6 per cent of GDP in 2004. At the end of 2006 there were around 1 million fixed telephone lines and 2.33 million mobiles (mobile density was 68%).<sup>83</sup> The main feature of the telecommunications market in Uruguay is the presence of segments that are subject to differing degrees of competition. In international long-distance telephony and mobile telephony, a number of operators compete.<sup>84</sup> In the case of urban fixed telephony and national long-distance telephony, however, the state continues to exercise a monopoly through the National Telecommunications Authority (ANTEL). Foreign companies may operate in any of the sectors open to private competition. Uruguay has no commitments on telecommunication services in GATS.

The telecommunications sector in Paraguay accounted for 3.9 per cent of GDP in 2002. The level of development in the fixed telephone infrastructure in Paraguay is low, with fixed line telephone density at only 10%. Mobile phones to a large extent met the

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<sup>80</sup> CIA Factbook

<sup>81</sup> WTO, 2004

<sup>82</sup> WTO, 2007

<sup>83</sup> CIA Factbook

<sup>84</sup> WTO, 2006.

unsatisfied demand and by 2006 there was over 3 million mobiles in Paraguay with mobile density at nearly 50%.<sup>85</sup> As of 2004, the telecommunication service sector in Paraguay is open to competition with the exception of fixed line telephony which is a state monopoly. In 2000, the government made a failed attempt to privatise the Paraguayan Communication Company (COPACO). The telecommunication sector has also become more open to foreign investment as by 2004 in almost all telecommunication markets, with the exception of basic telephony, there was some degree of foreign participation<sup>86</sup>.

Communications services, particularly telecommunications, play an increasingly important role in enhancing business competitiveness in Mercosur as well as in the EU. As suggested by the Mattoo et al (2001) study on growth rates, improving communications may make a major contribution to Mercosur economic development. Significant gains are available, either through liberalization or public investment. However, the international evidence suggests that the liberalization of telecommunications sector will be most successful where it is accompanied by effective regulatory institutions.<sup>87</sup> Further efficiency gains may be available from regulatory convergence with the EU. However, careful management would be needed to ensure that the benefits outweigh the potential negotiation, transition and compliance costs of convergence<sup>88</sup>.

### Transportation Services

In Brazil, transportation accounts for some 2.7% of GDP in 2002. For other Mercosur economies this share is roughly similar. In the last decade the Mercosur economies introduced deregulation of the transport sector, in general, however, there are still provisions that shelter the sector from international competition.

Domestic (cabotage) air services are reserved for national enterprises or nationals in Argentina and Uruguay<sup>89</sup>. Authorization to provide passenger and merchandise transportation services within Brazil is granted only to companies with headquarters in Brazil and under Brazilian management, and in which four fifths of voting rights are in domestic hands. Certain restriction on operation of national and international air transport also apply in Paraguay although out of four airlines that had regular international flights to Paraguay, none were Paraguayan-owned. In general, Mercosur economies require companies providing international air transport services to be subject to the concession or authorization regime. They must have an agent in a Mercosur member state, establish a domicile for all legal purposes, and be specifically subject to local jurisdiction.

Likewise, navigation and cabotage in maritime transport are reserved for national vessels in Mercosur. These restrictions often extend, as for example in Argentina, to auxiliary services such as to transshipment, dredging and towing operations and any other service or commercial activity carried out in Mercosur countries' waters. However, some exceptions may apply as the Executive, in Argentina, Uruguay and Brazil, may allow exceptions so that vessels flying other flags can provide cabotage services when national

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<sup>85</sup> CIA Factbook

<sup>86</sup> WTO, 2005

<sup>87</sup> Wallsten, 2001

<sup>88</sup> Müller-Jentsch (2005)

<sup>89</sup> WTO, 2007; WTO 2006

vessels are not available. In Brazil, there are no restrictions on the origin of capital for the establishment of a maritime transport operator. Under the Maritime Law, Brazilian flag vessels must be registered in the Registry of Maritime Property, and owned by natural persons resident and domiciled in Brazil or by a Brazilian shipping company (EBN) established in Brazil according to domestic law.

Transportation services can be a significant barrier to realising the potential benefits of other aspects of trade liberalisation. The section on trade facilitation identifies infrastructure deficiencies as a major constraint on export performance. The main benefits in terms of improved efficiency in transport services can be expected to result from increased foreign investment in infrastructure, resulting from investment liberalisation and improved credibility and confidence in the domestic regulatory environment affecting long term foreign contracts and concessions.

### Construction and related engineering services

Construction and civil engineering are essential components of many aspects of development, and can help to generate large economic benefits. In this sub-sector the potential static welfare gains from complete liberalisation may be greater in the EU than in Mercosur, through increased mobility of Mercosur workers to the EU. However, the scenario for mode 4 liberalisation is restricted primarily to professional staff, and so the gains to the EU would come mainly from the sale of services to Mercosur. Gains in Mercosur would come largely from productivity improvements or reduced rents. The sector is however one in which Brazil and Argentina already have highly experienced firms using modern techniques, and so the gains may not be large. Relaxed entry requirements may result in a small loss of employment of Mercosur professionals, but salary differentials would limit this effect.

### Distribution services

The scenario for services would expand the ability of EU distribution companies to establish outlets in Mercosur, where their technological capability is likely to give them a competitive advantage over local distributors. The EU would gain economically from the return on investment, while Mercosur would experience welfare gains from increased economic efficiency.

The number of small traders in Mercosur can be expected to decline, with a smaller number of jobs becoming available in new outlets. The welfare gain will come mainly from lower consumer prices, particularly for higher income urban communities.<sup>90</sup> Effective competition policy may be needed to control cartelisation and anti-competitive behaviour and would be needed in order to mitigate such effects.

In the longer term, liberalisation can be expected to improve the effectiveness of those distribution services which supply modern industrial and commercial equipment to other sectors of the economy. This may have a significant beneficial long term effect on Mercosur growth rates.

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<sup>90</sup> The SIA of the WTO negotiations on distribution services concludes that in many developing countries the potential gains are likely to be compromised by small retailers being squeezed out of the market and pressures exercised on suppliers by big international retail chains (Arkell and Johnson 2005).

### Educational services

Education services are partially exempt from liberalisation under GATS Article I.3, which provides a general exception for services provided in the exercise of government authority that are not supplied on a commercial basis or in competition. This is expected to apply similarly in the services scenario for EU-Mercosur liberalisation. The scenario will provide some additional freedom to offer private sector education, but no major economic impacts are anticipated.

### Energy services

Supply of natural gas and oil is less influenced by trade liberalisation than electricity supply. As with water supply services, the increased efficiency arising from increased competition is likely to improve availability as well as saving costs. Similar improvements have been achieved, however, in state owned utilities, through appropriate public investment<sup>91</sup>. Privatised utilities have however proved more efficient in extending coverage. Trade liberalisation can help to improve the performance of the energy services sector, but effective regulatory frameworks are also needed, in order to prevent the formation of private monopolies and maintain access for poorer communities.

Large numbers of professional and skilled staff are employed in the energy industry. Liberalisation may entail some loss of local employment associated with greater entry of EU firms, but this may be more than offset by a high degree of skill transfer. This may in turn lead to increased competitiveness of domestic energy services, depending on the country's development strategy and its success in building the appropriate technological infrastructure.

### Health-related and social services

As with educational services, health and social services are partially exempt from liberalisation under the GATS exception for government services, which applies also in the services scenario for EU-Mercosur. Qualification requirements, residency requirements or economic needs tests apply for example to doctors, nurses and pharmacists, and mode 4 liberalisation under the scenario will be limited. The opening of markets to foreign health service companies is largely a matter for individual governments' choice.

It has been suggested that health care services are an area in which developing countries could become major exporters, either by attracting foreign patients, or by migration of health personnel<sup>92</sup>. Health services liberalisation can also have a beneficial effect by exercising downward pressure on health service costs. Other studies have suggested that it is only in countries with high health standards and a surplus of medical personnel where such exports would not have an adverse effect on the health of the country's own population.

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<sup>91</sup> Kirkpatrick, Parker and Zhang (2008)

<sup>92</sup> World Bank (2002)



## Tourism and travel-related services

The growth of the tourism industry is determined mainly by market opportunity and government policy, and so the effects of further liberalisation are expected to be small. The principal economic impacts of EU-Mercosur liberalisation are likely to come through greater European involvement in local travel agencies, hotels and restaurants, but the sector is already highly competitive. Economic gains to the EU from foreign earnings and to Mercosur from greater competition are not expected to be significant.

### **3.3.5 Summary of SIA for Services: Mercosur**

#### Economic impacts

As indicated by the CETM CGE model results the overall impact on static economic welfare of the services component of an EU- Mercosur agreement is likely to be positive. Much greater long term gains are available provided that the opening of services markets is complemented by domestic regulation and competition policy measures. These gains can, in turn, make a significant contribution to investment and economic growth.

The exposure of Mercosur's services industries to foreign entry and competition can be expected to encourage investment in establishing a commercial presence on the part of EU companies. However, the downturn in private foreign investment in the infrastructure sector in Latin America which occurred in the first years of the current decade highlighted the importance of ensuring regulatory and contractual consistency and certainty for foreign investors.

Domestic investment in services provision may also increase over time, as local firms respond to improved access to the EU market by increasing export capacity in services sector activities. There are a growing number of Mercosur service companies that have rapidly expanded their service exports in recent years.

In Mercosur countries there may be negative adjustment effects on employment in the short-run, as sectors become more efficient and productive. Impacts are expected to be small overall, and restricted to service sub-sectors such as distribution. In comparison with similar changes associated with privatisation and other domestic reforms, impacts from services liberalisation are not likely to be more than minor in significance. The long term effects on employment in Mercosur are expected to be positive. Most of the anticipated employment changes arise through increases in productivity, which are likely to be associated with a beneficial long term effect on wage levels.

#### Social impacts

Liberalisation of environmental services may have significant social and health impacts, depending on the nature of associated reforms. The increase in investment in infrastructure services provision, such as water and sanitation and electricity, has the potential for improving the access of the poor to essential services.<sup>93</sup> This will require an effective regulatory institutional structure which can ensure that the services provided to the poor are affordable and accessible. There is a substantial body of empirical evidence

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<sup>93</sup> Kirkpatrick, Parker and Figuera (2007)

showing that improvements in the quality of basic infrastructure services have a positive impact on the health of the poor.<sup>94</sup> There are no significant impacts on equity attributed to services liberalisation.

### Environmental impacts

Services liberalisation is expected to help increase the use of environmentally efficient management techniques and technologies, and add to the pressures on government to improve environmental regulation and enforcement. Liberalisation of distribution services is expected to lead to goods being sourced from a wider area, with consequent adverse impacts on local pollution and climate change associated with increased transport. Changes in packaging techniques may have adverse impacts on waste generation, requiring stronger regulation to encourage recycling.

Greater use of environmentally efficient management techniques and technologies will tend to reduce pressures on consumption of water and other resources. The impact is not expected to be significant in relation to other effects in this area. No significant impacts on biodiversity have been identified.

### Process Indicators

Some of the service sectors affected, particularly telecommunications, can have important beneficial influences on processes of economic and social transformation. Liberalisation will also help to enable stronger environmental management. Increased transport associated with distribution services liberalisation will additionally add to climate change pressures.

In terms of consistency with sustainable development principles, the effects will be similar to those identified for industrial products. All are beneficial or neutral, except for the principle of reducing and eliminating unsustainable patterns of production and consumption (Principle 8).

The effects on institutional capacity for effective sustainable development strategies will be similar to those for industrial products. These are all relatively neutral in that they neither add to nor detract from Mercosur countries' capacity to implement effective sustainable development strategies.

The impacts discussed above are summarised in Table 14.

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<sup>94</sup> Clarke et al (2004), Kirkpatrick and Parker (2005, 2006)

**Table 14: Sustainable development impacts of services liberalisation in Mercosur**

| Impact                  | Countries / sectors affected  | Causal factors   | Factors affecting significance   | Potential significance |            |
|-------------------------|---|--|--|------------------------|------------|
|                         |   |  |  | short term             | long term  |
| <b>Economic</b>         |   |  |  |                        |            |
| Real income             | Strongest in Transportation, Finance and Telecom.                     | Static welfare<br><br>Higher growth  | Competitiveness of domestic service providers<br>Regulatory capacity<br>Other aspects of economic policy | ↑<br><br>-             | ↑<br><br>↑ |
| Fixed capital formation |   | Market access for FDI commercial presence<br>Service sector exports                | Domestic regulation<br>Business environment  | -                      | ↑          |
| Employment              | Distribution, smaller effects in other sectors                        | Production, labour productivity.   | Education and training; labour market flexibility and retraining   | ↓                      | ↑          |
| <b>Social</b>           |   |  |  |                        |            |
| Poverty                 |   | <b>Unemployment in short term, better long term economic performance</b>           |  | -                      | ↑          |
| Health and education    |   | <b>More efficient services, potential adverse effects for access to services</b>   | Strong regulation  | ↑                      | ↑          |
| Equity                  | Mixed small effects   |  |  | -                      | -          |
| <b>Environmental</b>    |   |  |  |                        |            |
| Biodiversity            | No significant impacts identified                                     |  |  | -                      | -          |
| Environmental quality   | Environmental services, energy services.<br><br>Distribution services | Greater use of improved management techniques<br>Increased packaging               | Government willingness to revise legislation<br><br><b>stronger regulation, recycling</b>                | ↑<br><br>↓             | ↑<br><br>↓ |
| Natural resources       | Environmental services, energy services etc.                          | Minor beneficial impacts   |  | -                      | -          |
| <b>Process</b>          |   |  |  |                        |            |
| SD principles           |   | Consistent with most principles. Small incremental consumption pressures           | Effective regulation   | -                      | ↓          |
| SD strategies           |   | Consistent with most strategic objectives. Concern for adverse effects on telecoms | Technology strategy  | -                      | -          |

Legend: ↑ positive greater significant impact, ↓ negative greater significant impact, ⬆ positive lesser significant impact, ⬇ negative lesser significant impact, ⬆⬇ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above), - non-significant impact compared with the base situation.

### 3.3.6 Summary of Services SIA Findings: EU

#### Economic Impacts

Liberalisation of EU Mercosur services trade is expected to have a positive impact on real income, employment and fixed capital formation in the EU, as a result of increased export and investment opportunities in the Mercosur region.

#### Social Impacts

The liberalisation of services sector is not expected to have any significant social impacts in the EU 25 countries.

#### Environmental Impacts

No significant environmental impacts in the EU have been identified for services liberalisation.

Table 15 summarises the anticipated impacts in the EU from services liberalisation within the EU Mercosur Association Agreement.

**Table 15: Sustainable development impacts of services liberalisation in the EU**

| Impact                | Countries / sectors affected             | Causal factors        | Factors affecting significance | Potential significance |           |
|-----------------------|--|-----------------------|--------------------------------|------------------------|-----------|
|                       |  |                       |                                | short term             | long term |
| <b>Economic</b>       |  |                       |                                |                        |           |
| Real income           | International companies investing abroad | Greater market access | Level of liberalisation        | ↑                      | ↑         |
| Fixed capital form.   |  | Overseas investment   |                                | ↑                      | ↑         |
| Employment            |  |                       |                                | -                      | -         |
| <b>Social</b>         |  |                       |                                | -                      | -         |
| Poverty               |  |                       |                                | -                      | -         |
| Health and education  |  |                       |                                | -                      | -         |
| Equity                |  |                       |                                | -                      | -         |
| <b>Environmental</b>  |  |                       |                                |                        |           |
| Biodiversity          |  |                       |                                | -                      | -         |
| Environmental quality |  |                       |                                | -                      | -         |
| Natural resources     |  |                       |                                | -                      | -         |
| <b>Process</b>        |  |                       |                                | -                      | -         |
| SD principles         |  |                       |                                | -                      | -         |
| SD strategies         |  |                       |                                | -                      | -         |

Legend: ↑ positive greater significant impact, ↓ negative greater significant impact, ⬆ positive lesser significant impact, ⬇ negative lesser significant impact, ⬆⬇ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above), - non-significant impact compared with the base situation.

### 3.4 SIA Findings for Rule Based Measures

The negotiations on the EU Mercosur trade agreement include a number of areas relating to domestic regulatory rules: investment, public procurement and trade facilitation. Liberalisation in these areas is seen as complementing the traditional market access measures by providing an ‘enabling environment’ for the expansion of international trade and investment flows.

#### 3.4.1 Investment

The inclusion of investment in trade negotiations is intended to minimise the conditions and regulations on foreign investors entering and operating in the host countries, to improve the transparency and consistency of the regulations that are applied to foreign investors, and to grant them national treatment.<sup>95</sup> The underlying premise in favour of an investment agreement is that it will increase the flow of foreign investment. In addition, by improving investor protection and confidence, domestic investment may be stimulated. Proponents of investment agreements argue, therefore, that the improvement of the investment ‘climate’ and the liberalisation of investment would be of mutual benefit to both parties in the trade agreement. The empirical evidence on the economic impact of investment provisions in regional trade agreements is generally positive.<sup>96</sup>

The EU – Mercosur negotiations on an investment agreement have focused on the improvement of the investment environment and a progressive liberalisation of investment, complemented by appropriate domestic regulations.<sup>97</sup> Foreign investment regimes have been significantly liberalized in the last 15 years, in each member of Mercosur, and are now considered to be conducive to attracting large foreign investments. In Brazil, constitutional amendments passed in 1995 eliminated the distinction between foreign and national capital. Constitutional Law now mandates the same legal treatment for national capital, and foreign capital invested in the country, under the same circumstances, and prohibits all forms of discrimination not explicitly foreseen in the Law.<sup>98</sup> As a consequence, the Federal Government does not grant special incentives to foreign investment, other than those available to investment in general, and foreign direct investment (FDI) is accorded, in general, national treatment. However, restrictions to foreign investment apply in a number of areas. These include mining of

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<sup>95</sup> Te Velde and Fahnbulleh, (2006) identify the following areas that can be covered in an investment agreement: Investment promotion and cooperation, liberalisation and market access, and investment protection.

<sup>96</sup> Dee and Gali (2003) find that FDI responds positively to the non-trade provisions within RTAs. Similarly, Te Velde and Bezemer (2006) find that regions with more investment provisions provide US and UK investors with positive signals about how different regions will treat them. Furthermore, the type of regional grouping matters for attracting FDI (i.e. whether or not the RTA includes certain trade and investment provisions). The OECD (2006) finds that investment provisions in RTAs are positively associated with both trade and investment flows.

<sup>97</sup> EU FTAs have in general, been concerned with investment cooperation, promotion and to some extent liberalisation, rather than investment protection

<sup>98</sup> WTO, 2004

mineral resources as well as exploitation, refining or transportation of hydrocarbons which remains under a state monopoly. Direct or indirect investment in health care in Brazil is closed to foreign enterprises. Investment in highway and road transport is limited to no more than 20-25% of the capital stock with voting rights. Commercial presence of foreign entities or individuals is restricted in financial services as the installation of new financial institutions is subject to case-by-case approval.<sup>99</sup>

In Argentina foreign companies can invest without prior approval, on the same conditions as investors domiciled in Argentina, and have the right to repatriate their investments and transfer their profits abroad at any time. However, under certain conditions, direct investments are subject to the 30 per cent deposit with the Central Bank. Further, in 2003, a new law on the preservation of cultural property and assets was adopted. This imposed a 30 per cent cap on the participation of foreign enterprises in the ownership of communications media and limited their voting rights to 30 per cent<sup>100</sup>.

In Uruguay, the Investment Law prescribes that the investment regime shall not discriminate between foreign investors established in Uruguay and Uruguayan investors. There are, however, some restrictions concerning market access.<sup>101</sup> For example, foreign investment is specifically prohibited in the following sectors: the operation of radio and television stations; cabotage and domestic transport of passengers by sea or air; fishing within an area of 12 nautical miles; and ownership of more than 49 per cent of the shares in railway companies. In general, foreign investors may engage in any type of activity on the same terms as Uruguayan investors. Foreign investors are eligible for the same incentives as Uruguayan investors.

As in the case of other Mercosur's members Paraguay's foreign investment regime is relatively open. There are no restrictions on foreign investment and private investment in general, other than in sectors reserved for the State. There are no prohibitions on Paraguayan investment outflows or restrictions on conversion or transfer of foreign currency. Private-sector participation is restricted in areas reserved for the State, such as some specialized telecommunications services.<sup>102</sup>

The Colonia and Buenos Aires Protocols codify common rules on investment for Mercosur's member and non-member countries, respectively. These protocols, however, have not been progressed and still await ratification by some members.

### **3.4.1.1 SIA Findings for Investment Agreement: Mercosur**

#### Economic Indicators

European investment in the Mercosur region is already very substantial and an investment agreement is expected to confirm investor confidence in the region. Given the substantial inflow of FDI the *additional* investment that could be attributed to an investment agreement may be muted. However, if an agreement resulted in the relaxation or removal of sectoral restrictions, there could be a proportionately larger increase in European investment into these sectors. An investment agreement will also act as a

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<sup>99</sup> opt. cit.

<sup>100</sup> opt. cit.

<sup>101</sup> WTO, 2006

<sup>102</sup> WTO, 2005

signal to non- EU investors. Over time, the inflow of new FDI is expected to contribute to economic growth. The increase in growth resulting from FDI inflows is expected to have a positive long term impact on employment

### Social Indicators

An increase in private investment from the EU into the network industries in Mercosur could contribute to improved quality and accessibility of basic services to low income households, provided that domestic regulatory offices are able to regulate for accessibility and affordability criteria in the delivery of services by private utility operators.<sup>103</sup> In the long run, the increase in real income attributable to higher FDI inflows may have an indirect trickle down effect on poverty. An investment agreement is not expected to have a significant impact on equity.

If FDI results in learning by doing and skills enhancement externalities, the quality of the labour force may be positively affected. Similarly, if the health safety standards in foreign owned enterprises are superior to domestic enterprises, there may be some marginal improvements in health for employees. Neither of these potential externalities of FDI is likely to be significant in the context of the middle income Mercosur countries.

### Environmental Indicators

The impact of increased FDI on the environment has been widely discussed in the literature, particularly in the context of pollution havens and a ‘race to the bottom.’ Where necessary, liberalisation of FDI market access should be conditional on a strengthening of environmental regulatory capacity. FDI can introduce improved environmental control technology, thereby contributing to improvements in environmental quality. Similarly, FDI in environmental services can contribute positively to environmental quality.<sup>104</sup>

Increased foreign investment in extractive industries and in sectors that use natural resources as inputs can be expected to put additional pressure on the natural resources capital stock and may require appropriate mitigation measures in terms of environmental controls and regulation. An investment agreement is not expected to have any significant impacts on biodiversity

### Process Indicators

Increased FDI may contribute to Principle 9, the exchange of scientific and technological knowledge, and enhance the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies. This is consistent with the other principles of sustainable development. In terms of the criteria for effective national sustainable development strategies, an investment agreement which was linked to the provision of environmental services and environmental technology transfer would contribute to criteria A.3, ‘the integration of the maintenance of sustainable levels of resource use and the control of pollution to maintain a healthy environment into

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<sup>103</sup> Kirkpatrick and Parker 2007

<sup>104</sup> See section 3.3.3: Environmental Services. Also, George, Kirkpatrick and Scricciu, 2006

economic policy' An agreement of investment would not be contrary to the other criteria for effective national development planning.

The findings for potential sustainability impacts in Mercosur are summarised in Table 16.

**Table 16: Summary of Sustainability Impacts for Investment Agreement: Mercosur**

| Impact                  | Countries / sectors affected | Causal factors   | Factors affecting significance   | Potential significance |           |
|-------------------------|------------------------------|--|--|------------------------|-----------|
|                         |                              |  |  | short term             | long term |
| <b>Economic</b>         |                              |  |  |                        |           |
| Real income             |                              | Investment led economic growth   | coverage of the investment agreement; quality of domestic investment environment | ↑                      | ↑         |
| Fixed capital formation |                              | Inflow of FDI  | Domestic regulation; Business environment  | ↑                      | ↑         |
| Employment              |                              | Increase in output   | Sectoral pattern of investment and growth  | –                      | ↑         |
| <b>Social</b>           |                              |  |  |                        |           |
| Poverty                 |                              |  |  | –                      | ↑         |
| Health and education    |                              |  |  | -                      | -         |
| Equity                  |                              |  |  | -                      | -         |
| <b>Environmental</b>    |                              |  |  |                        |           |
| Biodiversity            |                              |  |  | -                      | -         |
| Environmental quality   |                              | Sectoral allocation of FDI; use of environmental control technology in production                          | Effective environmental regulation   | ↑?                     | ↑?        |
| Natural resources       |                              | increased investment in resource intensive industries  | Effective environmental regulation   | -                      | ↓?        |
| <b>Process</b>          |                              |  |  |                        |           |
| SD principles           |                              | Contribution to development and diffusion of environmental technologies. Consistent with other principles. | Effective regulation   | ↑                      | ↑         |



| Impact        | Countries / sectors affected | Causal factors                        | Factors affecting significance | Potential significance |           |
|---------------|------------------------------|---------------------------------------|--------------------------------|------------------------|-----------|
|               |                              |                                       |                                | short term             | long term |
| SD strategies |                              | Consistent with strategic objectives. |                                | -                      | -         |

The following symbols are used in the tables to show impact significance

- ↑ positive greater significant impact
- ↓ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation.

#### 3.4.1.2 SIA Findings for Investment Agreement: EU

The inclusion of investment agreement provisions in the EU Mercosur Association Agreement is expected to generate economic gains for European investors in Mercosur. It is not expected to impact on the inflow of FDI to the EU. There are no significant social or environmental impacts expected in the EU Member States (Table 17)

**Table 17: Summary of Sustainability Impacts for Investment Agreement: EU**

| Impact                  | Countries / sectors affected | Causal factors  | Factors affecting significance   | Potential significance |           |
|-------------------------|------------------------------|---|--|------------------------|-----------|
|                         |                              |   |  | short term             | long term |
| <b>Economic</b>         |                              |   |  |                        |           |
| Real income             |                              | Investment led economic growth increases investment returns | coverage of the investment agreement; quality of domestic investment environment | ↑?                     | ↑         |
| Fixed capital formation |                              |   |  | -                      | -         |
| Employment              |                              |   |  | -                      | -         |
| <b>Social</b>           |                              |   |  |                        |           |
| Poverty                 |                              |   |  | -                      | -         |
| Health and education    |                              |   |  | -                      | -         |
| Equity                  |                              |   |  | -                      | -         |
| <b>Environmental</b>    |                              |   |  |                        |           |

| Impact                | Countries / sectors affected | Causal factors   | Factors affecting significance     | Potential significance |           |
|-----------------------|------------------------------|--|------------------------------------|------------------------|-----------|
|                       |                              |  |                                    | short term             | long term |
| Biodiversity          |                              |  |                                    | -                      | -         |
| Environmental quality |                              | Sectoral allocation of FDI; use of environmental control technology in production                          | Effective environmental regulation | -                      | -         |
| Natural resources     |                              | increased investment in resource intensive industries  | Effective environmental regulation | -                      |           |
| <b>Process</b>        |                              |  |                                    |                        |           |
| SD principles         |                              | Contribution to development and diffusion of environmental technologies. Consistent with other principles. | Effective regulation               | -                      | -         |
| SD strategies         |                              | Consistent with strategic objectives.  |                                    | -                      | -         |

The following symbols are used in the tables to show impact significance

- ↑ positive greater significant impact
- ↓ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation.

### 3.4.2 Public Procurement

Government procurement is arguably the largest trade sector sheltered from multilateral disciplines. With the completion of the Tokyo Round on multinational trade negotiations in 1979, a code of conduct for central government procurement, known as the Agreement on Government Procurement (GPA), was introduced into the GATT. The code bound only its signatories and most GATT contracting parties did not join. During the Uruguay Round the coverage of the agreement was expanded to include services and additional government entities. Transparency in government procurement was re-introduced as part of the WTO negotiation agenda at the Singapore Ministerial meeting in December 1996,

as one component of the so-called ‘Singapore issues’ (the other ‘behind-the-border’ Singapore issues related to multilateral rules for competition, trade facilitation and investment). In July 2004, the World Trade Organization (WTO) General Council decided not to launch negotiations on new multilateral rules on transparency in government procurement (or competition and investment). Multilateral disciplines on government procurement remain subject, therefore, to the amended plurilateral Government Procurement Agreement (GPA) which came into force in 1996. The agreement regulates public tenders in a way to guarantee the transparency of procedures and to ensure equal treatment for domestic and foreign suppliers.

The European Union has identified the absence of multilateral disciplines in the field of public procurement as a serious constraint on the ability of EU companies to compete for government contracts in areas such as transport equipment, public works and utilities, and seeks to improve the terms of access to procurement markets outside the EU for EU exporters.<sup>105</sup> To achieve this, the EU aims to negotiate access to procurement markets through its bilateral trade agreements and free trade agreements (FTAs), by encouraging third countries to negotiate substantial commitments with the EU. Government procurement has therefore been an integral part of the ‘second wave’ of regionalism which has been characterised by a ‘deepening’ of these agreements to include ‘behind the border’ regulatory issues including investment, technical barriers, and trade facilitation.

With regards to public procurement the EU Communication states that:

‘Public procurement is an area of significant untapped potential for EU exporters. EU companies are world leaders in areas such as transport equipment, public works and utilities. But they face discriminatory practices in almost all our trading partners, which effectively close off exporting opportunities. This is probably the biggest trade sector remaining sheltered from multilateral disciplines.

An examination of the areas of EU economic interests where the government procurement is most prevalent reveals that sectors such as ‘construction work’ and ‘Architectural, construction, legal, accounting and business services’ account for over 45% of the total number of government tenders. These areas coincide with EU’s main ‘offensive interests’ in the area of government procurement as the EU is world leader in the export of services as well as sectors such as construction, pharmaceuticals, public utilities, transport equipment.

The 2006 Communication focuses on the global competitiveness gains to Europe from improved access to foreign public procurement markets. In an earlier Communication on government procurement, the Commission emphasized that increasing the scope and transparency government procurement can:<sup>106</sup>

- Increase competition to make bidders more efficient and stimulate innovation
- Achieve better value for money and lower budget expenditure
- Promote partnership between national and foreign bidders
- Fight bribery and corruption in the public sector

There are two potential sources of benefit from liberalisation of government procurement (Evenett, 2003). First, as a result of the transparency requirements the government will be required to demonstrate better value for money in its contracting and purchases. More

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<sup>105</sup> [http://ec.europa.eu/trade/issues/sectoral/gov\\_proc/index\\_en.htm](http://ec.europa.eu/trade/issues/sectoral/gov_proc/index_en.htm)

<sup>106</sup> EC, 2002a

generally, greater transparency will contribute to improved governance. Estimates of the economic impact of improvement transparency and accountability suggest significant savings in the reduction of economic rents and corruption. Hockman (1998) estimated that competitive tendering and outsourcing could produce savings of about 20% without comprising quality. It is estimated that the introduction of the Internal Market reforms in the EU significantly improved the performance of public procurement markets over the past decade. Public procurement directives have effectively increased transparency and resulted in an estimated saving of 30% or more in public finances, despite the fact that direct cross border procurements remain low. Second, exports could expand as a result of purchases of goods and services by governments in the partner countries.

A significant share of government procurement is in services, where foreign supply would require the movement of people across national boundaries. The scope of negotiations on trade liberalisation in government procurement therefore is relevant to issues relating to domestic policy towards foreign direct investment, joint ventures and foreign mergers and acquisitions of domestic firms. However, negotiations on government procurement are only concerned with the right for a company to participate in a procurement, and thus do not include in themselves, the liberalisation of cross border movement of services and labour flows.

Resistance to GPA compliance may be based on concerns about the potential damaging effects on the development process. Procurement policies may be part of an industrial policy or an instrument to attain social objectives (e.g., support for small and medium sized enterprises, minority-owned businesses, disadvantaged ethnic groups, or certain geographic regions) through set-asides and preference policies.<sup>107</sup> In addition, a government's ability to procure from firms of its own choice can be an instrument for macroeconomic management.<sup>108</sup> There is also the concern that premature or over-rapid opening of government procurement markets will allow large foreign firms to drive out local firms before increasing prices, similar to predatory dumping.

However, there is also growing awareness that it may be possible to address these issues within a procurement chapter, to the mutual satisfaction of all Parties involved.

As emerging economies increasingly diversify their exporting interests they can compete in the supply of goods, for example, office furniture and equipment, textile products required in hospitals, shoes, tyres and other rubber products required by defence and other public organisations. But the lack of information on tender invitations and of the expertise required in filing the tenders can prevent producers from accessing this market.<sup>109</sup> On the other hand, as tender information is increasingly published in central data bases free of charge on the internet, and where as in the EU the information is published in several languages, access becomes easier for smaller companies, and suppliers from developing countries are increasingly active in the EU procurement market.

With the notable exception of the study published in 2004 by the European Commission demonstrating significant potential for cost savings (some 30%), to date, there is limited

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<sup>107</sup> Stiglitz and Charlton, 2005

<sup>108</sup> Stiglitz, 2004

<sup>109</sup> Rege, 2001

evidence on the effect of liberalizing government procurement markets.<sup>110</sup> This being said, there is a widely held view that opaque procurement practices are a significant source of corruption, and a key obstacle to a sustainable management of public finances.

Liberalisation of government procurement remains a complex issue, and a move towards a rule based agreement may be perceived by some stakeholders as a potential weakening of domestic policy autonomy. However, as an increasing number of developing countries are engaging in public procurement reform, there is likely to be an increasing opportunity to test the validity of these arguments.

In the EU, the procurement market is worth 1600 bn Euro. or over 16% of GDP.<sup>111</sup> In Mercosur, in 2004, the size of the government procurement at national level accounted to \$1.4 billion in Argentina and \$3.5 billion in Brazil.<sup>112</sup> This market is significantly smaller in Uruguay and Paraguay due to their smaller size but still accounts for a significant part of the total government expenditure.

Government procurement legislation in Mercosur countries gives preference to local suppliers. In Argentina the *Compre Nacional* [Buy Argentine] programme was reintroduced in 2001 in favour of domestic industry for the procurement and contracting of goods, works and services by public organizations, with a maximum of 10 per cent domestic preference in the case of goods.<sup>113</sup> This provision was subsequently repealed by Law No. 25.551, (*Compre Trabajo Argentino*) [Buy Argentine Labour], which established a system of preferences for goods of domestic origin, defined as those produced or extracted in Argentina, provided the cost of the raw materials, imports or nationalized imported materials did not exceed 40 per cent of the gross production value. There are also 'Buy provincial' and 'Buy municipal' programmes.<sup>114</sup>

In Brazil, under the Law No. 8,666 all procurement of goods, works and services must be tendered except in cases listed in Article 24 of the law. This law has effectively established no discrimination between companies incorporated under Brazilian law as the determining factors in selecting suppliers are the lowest price or best technical offer. However, in order to qualify for government contracts, suppliers must be legally established or represented in Brazil. Foreign firms without operations in Brazil and involved in international tenders need legal representation in the country or to be associated with a Brazilian firm (at least 51% Brazilian capital participation and operational control). Under the Law number 10,176 of 2001, the Federal Public administration should give preferences to the information technology goods and related services developed in Brazil.<sup>115</sup>

In Uruguay Decree No. 194/997 provides that government procurement should be through a public bidding procedure open to any Uruguayan or foreign supplier, although preferences are given to Uruguayan suppliers. State and semi-public enterprises give preference to Uruguayan over foreign products provided that they equal the foreign product in terms of quality and suitability. This requirement allows Uruguayan bidders to

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<sup>110</sup> Evenett and Hoekman (2005:3) argue that 'a convincing, evidence-based case for the incorporation of further binding constraints in the WTO has not been made.'

<sup>111</sup> EC (2004)

<sup>112</sup> WTO (2004)

<sup>113</sup> WTO (2007)

<sup>114</sup> opt. cit.

<sup>115</sup> WTO (2004)

be awarded contracts even if their bids are 10 per cent higher than the foreign bid. In order to encourage the participation of foreign suppliers, invitations to tender are published abroad through Uruguay's diplomatic missions, but this is not a legal requirement.<sup>116</sup> When awarding contracts for public works, preference is given to those which guarantee the most utilization of domestic raw materials and labour; for the purposes of evaluating such a preference, the general terms and specifications require bidders to give an estimate of the percentages of Uruguayan labour and materials comprised in the price offered. For foreign suppliers, preference is given to those which offer to purchase and use Uruguayan products.

In Paraguay the Law on Government Procurement (LGP) No 2,051 of January 2003 establishes the statutory provisions governing all public procurement in Paraguay. The LGP classifies public tendering as either local or international. The former is limited exclusively to natural or legal persons domiciled in Paraguay, while the latter is open to participation by natural or legal persons, whether or not they are domiciled in Paraguay. International tenders are used only in one of the following cases: (i) where required by an international treaty; (ii) where stipulated in agreements with international organizations; (iii) where, following investigation by the UOC, no Paraguayan suppliers are found to supply goods and services of the quality required or where the price of such goods or services is not "suitable"; or (iv) where no proposal has been submitted in a local tendering procedure.<sup>117</sup>

In the past few years, Mercosur has undertaken initiatives to liberalize government procurement market within its member states. In December 2004 the Common Market Council (CMC) approved the Protocol on Government Procurement with CMC Decision 27/04. The objective of this instrument was to gradually extend non-discriminatory treatment in the procurements made by public entities to the suppliers and providers established inside Mercosur. However, none of the Mercosur member states is a party to the WTO Plurilateral Agreement on Government Procurement.

#### **3.4.2.1 SIA Findings for Government Procurement: Mercosur**

The coverage of an agreement of government procurement could range from an agreement on greater transparency in government contracting with the private sector to formal agreement on national treatment of foreign firms. In the context of the EU - Mercosur negotiations, given the sensitivity and importance of government procurement for Mercosur industrial policy, it is assumed that a realistic liberalisation scenario would focus mainly on improving transparency in relation to the extent of national treatment and non-discrimination in government procurement and public works concessions.

##### Economic impacts

An agreement on greater transparency in Mercosur governments' procurement procedures may generate gains from increased competition for government contracts. Further economic efficiency gains might be expected to result from the improvement in the quality of public sector governance. The 'demonstration effect' of improvements in transparency and accountability in government procurement may spillover in

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<sup>116</sup> WTO (2006)

<sup>117</sup> WTO, 2005

improvements in other areas of public regulation and policy affecting the private sector. Consumers are likely to benefit from an improvement in the quality of goods and services provided by the state. There may be additional gains to Mercosur exporting firms if an agreement assists Mercosur firms in competing for public sector contracts for the supply of goods and labour services, in the EU countries. These economic gains would need to be compared to any benefits foregone in terms of developing domestic productive and technological capacity through the use of government long term contracting with local producers as an instrument of industrial strategy. On the other hand, a procurement framework which is perceived as more reliable and transparent by operators could also be a key driver to attract more innovative inward investment into Mercosur.

### Social Impacts

The liberalisation of government procurement could have an impact on the use of procurement to support SME development or regional development. However, there are ways of addressing these issues. It is unlikely that the economic gains from the liberalisation of government procurement could immediately be secured by the fiscal system and redistributed to support these goals. This being said, the money saved on more efficient procurements would become available for other important policy objectives such as social policy issues. Over time, tax revenues from corporate taxation could increase as the dynamic effects of liberalisation of government procurement are realised in terms of increased economic performance and growth in the private sector. On the other hand, those groups who depend heavily on goods and services provided by the state are likely to benefit from the improvement in the quality of these goods that is engendered by the liberalisation of public procurement rules.

### Environmental Impacts

The reforms to government procurement procedures are not expected to have any significant environmental impacts.

The impact of public procurement reform in Mercosur are summarised in Table 18.

**Table 18: Summary of Sustainability Impacts for Government Procurement: Mercosur**

| Impact          | Countries / sectors affected                            | Causal factors                          | Factors affecting significance | Potential significance |           |
|-----------------|---|---|--------------------------------|------------------------|-----------|
|                 |   |   |                                | short term             | long term |
| <b>Economic</b> |   |   |                                |                        |           |
| Real income     | EU and Mercosur firms that compete for public contracts | Improved transparency                   |                                | ↑                      | ↑         |
|                 | Improved quality of public sector services              | More competitive tendering and sourcing |                                | ↑                      | ↑         |
|                 | Savings in public                                       | More competitive                        |                                | ↑                      | ↑         |

| Impact                  | Countries / sectors affected | Causal factors | Factors affecting significance | Potential significance |           |
|-------------------------|------------------------------|----------------|--------------------------------|------------------------|-----------|
|                         |                              |                |                                | short term             | long term |
|                         | expenditure                  | tendering      |                                |                        |           |
| Fixed capital formation |                              |                |                                | -                      | -         |
| Employment              |                              |                |                                | -                      | -         |
| <b>Social</b>           |                              |                |                                | ↑↓                     | ↑         |
| Poverty                 |                              |                |                                |                        |           |
| Health and education    |                              |                |                                |                        |           |
| Equity                  |                              |                |                                |                        |           |
| <b>Environmental</b>    |                              |                |                                | -                      | -         |
| Biodiversity            |                              |                |                                |                        |           |
| Environmental quality   |                              |                |                                |                        |           |
| Natural resources       |                              |                |                                |                        |           |
| <b>Process</b>          |                              |                |                                |                        |           |
| SD principles           |                              |                |                                |                        |           |
| SD strategies           |                              |                |                                |                        |           |

The following symbols are used in the tables to show impact significance

- ↕ positive greater significant impact
- ↕ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation



### 3.4.2.2 SIA Findings for Government Procurement: EU

Economic gains are expected to occur as EU companies benefit from an improvement in access and transparency in public procurement markets in Mercosur. Greater transparency in EU rules and procedures for government procurement may allow some Mercosur companies to compete for Member State government procurement contracts, however, this is unlikely to on a scale that would result in significant economic gains to EU consumers. There are no social or environmental impacts anticipated in the EU from government procurement rule changes (Table 19).

**Table 19: Summary of Sustainability Impacts for Government Procurement: EU**

| Impact                  | Countries / sectors affected | Causal factors | Factors affecting significance | Potential significance |           |
|-------------------------|------------------------------|----------------|--------------------------------|------------------------|-----------|
|                         |                              |                |                                | short term             | long term |
| <b>Economic</b>         |                              |                |                                |                        |           |
| Real income             |                              |                |                                | ↑                      | ↑         |
| Fixed capital formation |                              |                |                                | -                      | -         |
| Employment              |                              |                |                                | -                      | -         |
| <b>Social</b>           |                              |                |                                |                        |           |
| Poverty                 |                              |                |                                |                        |           |
| Health and education    |                              |                |                                |                        |           |
| Equity                  |                              |                |                                |                        |           |
| <b>Environmental</b>    |                              |                |                                | -                      | -         |
| Biodiversity            |                              |                |                                |                        |           |
| Environmental quality   |                              |                |                                |                        |           |
| Natural resources       |                              |                |                                |                        |           |
| <b>Process</b>          |                              |                |                                |                        |           |
| SD principles           |                              |                |                                |                        |           |
| SD strategies           |                              |                |                                |                        |           |

The following symbols are used in the tables to show impact significance

- ↕ positive greater significant impact
- ↕ negative greater significant impact
- ↑ positive lesser significant impact
- ↓ negative lesser significant impact
- ↕ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
- impact has been evaluated as non-significant compared with the base situation

### 3.4.3 Trade Facilitation<sup>118</sup>

The CETM model includes trade facilitation as part of the full liberalisation scenario. On the basis of estimates that a reasonable package of trade facilitation measures would reduce trade costs by 1%, the model calculated the effect this would have on trade flows and economic welfare. For Mercosur, the result accounted for approximately 30% of the aggregate welfare gains from full trade liberalisation. For the EU, trade facilitation was found to be the single most important trade liberalisation measure, accounting for approximately half the increase in real income for EU25. Other modelling studies of trade facilitation as part of trade liberalisation also indicate significant gains (Engman, 2005).

There is a broad consensus that trade facilitation has the potential to contribute significantly to smoother and intensified trade between countries, particularly in terms of eliminating burdensome trade procedures, increasing transparency, improving business opportunities and security, and generally enhancing competitiveness and economic development to the benefit of both the government and the private sector<sup>119</sup>.

Recent data on the costs and constraints for trade across borders in the EU and Mercosur (Table 20) indicate that performance in the EU as a whole is significantly better than for Mercosur, but with wide variations for individual countries. This suggests that there are significant potential gains to be realised in both regions from a reduction in the trade facilitation costs incurred by exporters and importers.

**Table 20. Indicators of constraints to trade across borders**

|                  | Documents for export (number) | Time for export (days) | Cost to export (US\$ per container) | Documents for import (number) | Time for import (days) | Cost to import (US\$ per container) | World rank |
|------------------|-------------------------------|------------------------|-------------------------------------|-------------------------------|------------------------|-------------------------------------|------------|
| <b>Mercosur</b>  |                               |                        |                                     |                               |                        |                                     |            |
| Argentina        | 9                             | 16                     | 1,325                               | 7                             | 20                     | 1,825                               | 107        |
| Brazil           | 8                             | 18                     | 1,090                               | 7                             | 22                     | 1,240                               | 93         |
| Paraguay         | 9                             | 35                     | 720                                 | 10                            | 33                     | 900                                 | 123        |
| Uruguay          | 10                            | 24                     | 925                                 | 10                            | 23                     | 1,180                               | 125        |
| Mercosur average | 9                             | 23                     | 1,015                               | 9                             | 25                     | 1,286                               |            |
| <b>EU</b>        |                               |                        |                                     |                               |                        |                                     |            |
| Austria          | 4                             | 8                      | 843                                 | 5                             | 8                      | 843                                 | 12         |
| Belgium          | 4                             | 8                      | 1,600                               | 5                             | 9                      | 1,600                               | 48         |
| Bulgaria         | 5                             | 23                     | 1,329                               | 7                             | 21                     | 1,377                               | 89         |

<sup>118</sup> See separate SIA Report for Trade Facilitation

<sup>119</sup> Hellqvist (2003), UNECE (2002), Ivanow and Kirkpatrick (2007)

|                |   |    |       |   |    |       |    |
|----------------|---|----|-------|---|----|-------|----|
| Czech Republic | 5 | 16 | 775   | 7 | 18 | 860   | 30 |
| Denmark        | 4 | 5  | 540   | 3 | 5  | 540   | 2  |
| Estonia        | 3 | 5  | 675   | 4 | 5  | 675   | 7  |
| Finland        | 4 | 8  | 420   | 5 | 8  | 420   | 5  |
| France         | 4 | 11 | 1,028 | 5 | 12 | 1,148 | 25 |
| Germany        | 4 | 7  | 740   | 5 | 7  | 765   | 10 |
| Greece         | 5 | 20 | 998   | 6 | 25 | 1,245 | 65 |
| Hungary        | 5 | 18 | 975   | 7 | 17 | 975   | 45 |
| Ireland        | 4 | 7  | 1,090 | 4 | 12 | 1,139 | 20 |
| Italy          | 5 | 20 | 1,291 | 5 | 18 | 1,291 | 62 |
| Latvia         | 6 | 13 | 800   | 6 | 12 | 800   | 19 |
| Lithuania      | 6 | 10 | 820   | 6 | 13 | 980   | 23 |
| Luxembourg     | 5 | 6  | 1,250 | 4 | 6  | 1,250 | 32 |
| Netherlands    | 4 | 6  | 880   | 5 | 6  | 1,005 | 14 |
| Poland         | 5 | 17 | 834   | 5 | 27 | 834   | 40 |
| Portugal       | 6 | 16 | 580   | 7 | 16 | 994   | 31 |
| Romania        | 5 | 12 | 1,075 | 6 | 13 | 1,075 | 38 |
| Slovakia       | 6 | 25 | 1,015 | 8 | 25 | 1,050 | 90 |
| Slovenia       | 6 | 20 | 971   | 8 | 21 | 1,019 | 69 |
| Spain          | 6 | 9  | 1,000 | 8 | 10 | 1,000 | 47 |
| Sweden         | 4 | 8  | 561   | 3 | 6  | 619   | 6  |
| United Kingdom | 4 | 13 | 940   | 4 | 13 | 1,267 | 27 |
| EU average     | 5 | 12 | 921   | 6 | 13 | 991   |    |

Source: World Bank (2008)

While the economic benefits of trade facilitation itself are fairly well understood (subject to the acceptability of implementation costs that cannot all be quantified), the impact of including these measures within the trade agreement is less apparent. In the Mercosur customs union itself, as in the common market of the EU, there are evident benefits from making joint commitments on such measures, since all member states benefit from common action. In the case of the EU-Mercosur trade agreement the common interest of the parties is less readily identifiable. The principal benefits are expected to come from specific measures for which the costs of making an additional commitment are outweighed by the benefits of reciprocal commitments, and from EU technical assistance to Mercosur countries in implementing trade facilitation reforms.

Provisions for customs cooperation would build on the EU-Mercosur project that was completed in 2007<sup>120</sup>. The project aimed to contribute to the consolidation of customs integration and the establishment of the single market, including work on harmonising legislation, increasing transparency and speed of customs operations, administrative cooperation and implementing a communication policy.

This and other provisions for cooperation and coordination will have relatively low cost, with minimal adverse impact if the expected benefits fail to materialise. Most of the other provisions already have been or are being implemented in the EU, and are consistent with the Mercosur countries' own objectives for improving the efficiency and effectiveness of their procedures. The provision of technical assistance from the EU will help to facilitate more rapid action than would otherwise be possible.

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<sup>120</sup> PADUEM (2007)

### 3.4.3.1 SIA Findings for Trade Facilitation: Mercosur

The static efficiency effects of the proposed trade facilitation measures on economic welfare are small, but the longer term dynamic effects are potentially much larger. These gains are available primarily in the Mercosur countries, which have made less progress than the EU in implementing efficient border procedures. The EU will also benefit economically, mainly through improved performance of specific export industries and reduced costs of its own border procedures. The long term gain will be smaller than in Mercosur, since EU-Mercosur trade is a smaller proportion of its total trade.

These benefits and the actions needed to deliver them are those which would apply to unilateral action by both parties, primarily in Mercosur. The additional benefits that would accrue from including trade facilitation measures within the trade agreement are dependent on the negotiation of reciprocal commitments and on the magnitude and effectiveness of technical assistance.

The principal impact on poverty is expected to come in the longer term in Mercosur, from accelerated economic growth, and is likely to be significantly beneficial. In the shorter term the Mercosur countries are expected to gain a significant increase in tax revenues, enabling increased expenditure on issues such as health and education.

The acceleration of economic growth to which a full trade facilitation programme would contribute may have significantly adverse distributional effects, similar in magnitude to those discussed in the Overview SIA. These arise primarily from increased agricultural exports from Mercosur to the EU, and include potential conflicts over land and adverse gender effects.

Similarly, the changes in trade flows that would be stimulated by a fully effective trade facilitation programme are predicted by economic models to be as large as or larger than those arising from agricultural trade liberalisation. The Overview SIA has assessed the associated environmental impacts as of potentially major adverse significance, in both the short term and the long term, associated with increased agricultural exports from Mercosur to the EU.

The effects of trade facilitation measures on sustainable development principles are assessed as being neutral, except in so far as they influence long term economic growth. Growth is in principle highly consistent with goals of socio-economic transformation and poverty reduction, but will at the same time intensify the need for change in unsustainable patterns of consumption and production in both Mercosur and the EU.

The impacts discussed above are summarised in Table 21.

**Table 21: Sustainable development impacts of trade facilitation measures: Mercosur**

| Impact | Countries / sectors affected | Causal factors | Factors affecting significance | Potential significance |           |
|--------|------------------------------|----------------|--------------------------------|------------------------|-----------|
|        |                              |                |                                | short term             | long term |
|        |                              |                |                                |                        |           |

| Impact                  | Countries / sectors affected   | Causal factors  | Factors affecting significance                       | Potential significance |           |
|-------------------------|--|---|--|------------------------|-----------|
|                         |  |   |  | short term             | long term |
| <b>Economic</b>         |  |   |  |                        |           |
| Real income             | All  | details of negotiated agreement   | details of negotiated agreement                      | ?↑                     | ?↑        |
| Fixed capital formation | All  | details of negotiated agreement   | details of negotiated agreement                      | ?↑                     | ?↑        |
| Employment              | All  | details of negotiated agreement   | details of negotiated agreement                      | ?                      | ?         |
| <b>Social</b>           |  |   |  |                        |           |
| Poverty                 | Mercosur   | Economic growth   | Parallel policy measures                             | -                      | ↑         |
| Health and education    | Mercosur, smaller in EU  | Tax revenues, economic growth   | Parallel policy measures                             | ↑                      | ↑         |
| Equity                  | Mixed effects, potentially adverse for women   | Land conflicts, mechanisation   | Employment in other sectors, redistributive policies | ↑↓                     | -         |
| <b>Environmental</b>    |  |   |  |                        |           |
| Biodiversity            | Greatest in Brazil, Amazon and Cerrado   | Deforestation and monocultures for increased production   | Regulatory regimes, ethanol certification            | ↓                      | ↓         |
| Environmental quality   | All  | Increased production, agrochemicals; Intensification, Deforestation and monocultures for increased production | Production methods, regulatory framework             | ↓                      | ↑↓        |
| Natural resources       | Greatest in Brazil and Paraguay for land. Argentina for water  | Increased agricultural production   | Regulatory regimes, ethanol certification            | ↓                      | ↓         |
| <b>Process</b>          |  |   |  |                        |           |
| SD principles           | Positive for socio-economic change and poverty reduction, adverse for consumption and production, otherwise neutral. | Economic growth   | Parallel policy measures, environmental regulation.  | -                      | ↓         |
| SD strategies           | Neutral impact   |   |  | -                      | -         |

Legend: ↑ positive greater significant impact, ↓ negative greater significant impact, ↑ positive lesser significant impact, ↓ negative lesser significant impact, ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above), ? or ? uncertain positive or negative impacts of greater or lesser significance, - non-significant impact compared with the base situation.

### 3.4.3.2 SIA Findings for Trade Facilitation: European Union

The EU will benefit economically, mainly through improved performance of specific export industries and reduced costs of its own border procedures. The long term gain will be smaller than in Mercosur, since EU-Mercosur trade is a smaller proportion of its total trade.

Trade facilitation reforms are not expected to have significant social and environmental impacts in the EU. These findings are shown in Table 22.

**Table 22: Sustainable development impacts of trade facilitation measures: EU**

| Impact                  | Countries / sectors affected   | Causal factors  | Factors affecting significance                       | Potential significance |           |
|-------------------------|--|---|--|------------------------|-----------|
|                         |  |   |  | short term             | long term |
| <b>Economic</b>         |  |   |  |                        |           |
| Real income             | All  | details of negotiated agreement   | details of negotiated agreement                      | ?↑                     | ?↑        |
| Fixed capital formation | All  | details of negotiated agreement   | details of negotiated agreement                      | ?↑                     | ?↑        |
| Employment              | All  | details of negotiated agreement   | details of negotiated agreement                      | ?                      | ?         |
| <b>Social</b>           |  |   |  |                        |           |
| Poverty                 | Mercosur   | Economic growth   | Parallel policy measures                             | -                      | -         |
| Health and education    | Mercosur, smaller in EU  | Tax revenues, economic growth   | Parallel policy measures                             | -                      | -         |
| Equity                  | Mixed effects, potentially adverse for women   | Land conflicts, mechanisation   | Employment in other sectors, redistributive policies | -                      | -         |
| <b>Environmental</b>    |  |   |  |                        |           |
| Biodiversity            | Greatest in Brazil, Amazon and Cerrado   | Deforestation and monocultures for increased production   | Regulatory regimes, ethanol certification            | -                      | -         |
| Environmental quality   | All  | Increased production, agrochemicals; Intensification, Deforestation and monocultures for increased production | Production methods, regulatory framework             | -                      | -         |
| Natural resources       | Greatest in Brazil and Paraguay for land. Argentina for water  | Increased agricultural production   | Regulatory regimes, ethanol certification            | -                      | -         |
| <b>Process</b>          |  |   |  |                        |           |
| SD principles           | Positive for socio-economic change and poverty reduction, adverse for consumption and production, otherwise neutral. | Economic growth   | Parallel policy measures, environmental regulation.  | -                      | -         |
| SD strategies           | Neutral impact   |   |  | -                      | -         |

Legend: ↑ positive greater significant impact, ↓ negative greater significant impact, ↑ positive lesser significant impact, ↓ negative lesser significant impact, ↑↓ positive and negative impacts likely to be experienced according to context (may be lesser or greater as above), ? or ? uncertain positive or negative impacts of greater or lesser significance, - non-significant impact compared with the base situation.

## **4. PREVENTATIVE, MITIGATION AND ENHANCEMENT MEASURES AND POLICY RECOMMENDATIONS**

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### **4.1 Overview**

In accordance with the project's terms of reference, this section of the draft Final Overview Report proposes preventative, mitigation and enhancement measures and policy recommendations. These recommendations include proposals of the ongoing monitoring of key sustainability indicators affected by EU Mercosur trade liberalisation and for ex-post evaluation of the final Overview EU Mercosur Trade SIA.

The analysis of preventative, mitigation and enhancement measures is an integral part of the SIA methodology and on the basis of the impacts identified in the assessment, an SIA should propose measures in different areas of public policy, including trade policy, which can prevent potential negative impacts, enhance potential positive impacts and mitigate potential negative impacts. Measures can be taken through trade-related measures within the negotiation framework; through reforms within the EU; through domestic reforms in Mercosur and in the individual Mercosur countries; and by means of EU – Mercosur cooperation programmes.

The EU SIA Handbook (EC, 2006) defines the purpose of the mitigation and enhancement analysis in the following terms:

‘The idea is to assess how best to define a full package of domestic policies and international initiatives to yield the best possible outcome, not just in terms of trade liberalisation and economic growth but also of other components of sustainable development. A Trade SIA should also provide guidelines for the design of possible accompanying measures. Such measures may go beyond the field of trade as such and may have implications for internal policy, capacity building or international regulation. Accompanying measures are intended to maximise the positive impacts of the trade negotiations in question, or to reduce any negative impacts’.

This Final Overview Report has assessed the likely economic, social and environmental impacts of a potential EU Mercosur Trade Agreement, negotiated as a single undertaking. The aim of this section of the report is to provide an integrated set of preventative, mitigation and enhancement proposals that covers all affected sectors and each of the dimensions of sustainable development.

It is generally recognised that the opening up of markets to international competition offers significant potential gains in terms of economic efficiency, competitiveness, economic growth and the creation of new employment opportunities. The exposure to competition is expected to induce efficiency and productivity gains, and the opportunities for new investment and prospects of higher rates of return can be expected, other things being equal, to stimulate increased foreign and domestic investment. At the same time, there is a consensus among all stakeholders that trade liberalisation alone is not a sufficient condition to guarantee economic growth. There is ample evidence that

successful trade liberalisation requires not only improved market access but also supply-side reforms which improve productive capacities.<sup>121</sup>

Similarly, trade liberalisation does not always result in overall social improvement. Trade liberalisation is normally accompanied by significant adjustment costs and there is often a significant asymmetry between the overall benefits of openness, which are diffuse and often take time to materialise, and its adverse effects, which are more immediate and concentrated in specific industries, regions or segments of the labour market.<sup>122</sup> The immediate and medium term impact of trade liberalisation on poverty can be adverse, particularly in low income countries where social protection schemes are weak or do not exist.

The relationship between trade liberalisation and environmental sustainability is equally complex, and is an issue of global concern. While the impact of trade liberalisation on the environment cannot be predicted *a priori*, it is generally agreed that the magnitude of the environmental impacts will typically be context specific, and can be both positive and negative.

The results of this Overview SIA and the separate sector SIAs confirm this basic asymmetry in the benefits and costs of trade liberalisation. For the EU, the impact of the proposed liberalisation of EU Mercosur trade would be positive overall, with a significant economic welfare gain. Economic gains in services and manufacturing goods are predicted to offset the welfare decline in agriculture. If not mitigated by appropriate support programmes or other policy measures, the adjustment process may lead to adverse social impacts in agriculture, concentrated in particular sub-sectors and localities. Environmental effects are expected to be localised and insignificant in the context of an effective regulatory regime.

In Mercosur, the overall gains in economic welfare are also predicted to be positive. Most of these static welfare gains come from agricultural trade liberalisation, with a smaller contribution from liberalising cross-border trade in services. There are also significant potential gains from trade facilitation measures. The predicted sectoral changes in Mercosur are generally in the opposite direction to those in the EU. The agricultural and processed foods sectors are expected to benefit from the increased export opportunities in the EU market. For the manufacturing sector, the increased exposure to European competition is expected to necessitate a period of adjustment for Mercosur producers. Similar adjustment costs will arise in the services sector, particularly for financial services, utilities and business services. The magnitude and duration of these adjustment costs will be affected by the mitigation measures that are taken.

Economic gains are expected to increase over time in the Mercosur countries. In the long run, the exposure to competition is predicted to induce efficiency and productivity gains, and the opportunities for new investment and prospects of higher rates of return are likely to increase foreign and domestic investment, depending on the other factors which affect the investment climate. The sequencing of liberalisation and the phasing for the implementation of complementary supply side measures will affect the size of the longer term economic gains attributable to EU Mercosur trade liberalisation.

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<sup>121</sup> World Bank (2006)

<sup>122</sup> EC (2006c)



The social impacts in Mercosur are expected to be mixed. In the longer term, employment and income gains are predicted. The potential social costs include employment losses in parts of the manufacturing sector and additional non-adherence to decent work standards in some parts of the rural economy, as agricultural production increases following EU Mercosur trade liberalisation. Gender impacts are expected to be mixed and relatively small.

Both positive and negative environmental impacts are expected in Mercosur. The main impacts that have been identified are (i) opportunities for improved environmental services, subject to continued state support and effective regulation (ii) risk of increased water pollution, requiring stronger regulation (iii) a potentially significant adverse impact on forests and biodiversity as increased production of biofuels leads to deforestation.

The expected impacts of the proposed trade agreement on climate change are mixed. The economic modelling studies indicate a small reduction in greenhouse gas emissions from the re-allocation of production between Mercosur and the EU, countered by a larger increase due to increased international transport.

In summary, the results of the SIA confirm that EU Mercosur trade liberalisation will deliver economic gains to both the EU and Mercosur. However, in the absence of public policy interventions designed to offset market failures and imperfections, the economic gains resulting from trade liberalisation will be less than predicted in an idealised economy of perfectly competitive markets and frictionless adjustment. There is also the potential for adverse environmental and social impacts, unless appropriate and effective mitigation measures are implemented.

The challenge to policymakers is to ensure that the potential adverse social and environmental impacts of trade liberalisation are effectively avoided or mitigated, and the positive impacts enhanced. This requires an integrated and coherent set of preventative, mitigation and enhancement that can strengthen the positive synergies between trade liberalisation and support outcomes that are compatible with the goal of sustainable development.<sup>123</sup>

EC policy vis-à-vis Mercosur since April 2000 has resolved principally around the negotiation of a three pillar Association Agreement. The EU is aiming for a deep and comprehensive agreement going well beyond a simple free trade area in goods and services. The political chapter aims at enhancing political dialogue through new institutional mechanisms. The cooperation chapter aims, *inter alia*, to promote sustainable development and create new trade and investment opportunities while promoting competitiveness and innovation. The trade chapter, which has been the focus of the SIA, covers goods and services and also rule-based measures.

Three sets of preventative, mitigation and enhancement measures are proposed: (1) measures that relate to the trade pillar of the EU Mercosur Association Agreement; (2) measures that relate to the political and cooperation pillars; (3) measures that relate to domestic policy.

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<sup>123</sup> The OECD (2005d, 2006b) provides 'good practice' principles for formulating preventative, mitigation and enhancement measures for trade liberalisation.

## 4.2 Trade Pillar Measures

- (1) Establish a timetable for phased reduction in tariff and NTM reductions to allow for orderly adjustment period in sectors that are expected to experience significant adjustment costs. In Mercosur, these sectors are likely to include, motor vehicles and parts, transport equipment, textiles and clothing, machinery, financial services and distribution and retailing. In the EU, the main adjustment costs will occur in agriculture. The transition periods should be agreed after a detailed assessment of the restructuring needs and required time period for each (sub) sector.
- (2) Timing of reductions in tariffs and quota restrictions for environmentally/biodiversity sensitive products to be conditional on compliance with a set of sustainability criteria.
- (3) Agree programme of trade facilitation measures to improve the trade environment aimed at reducing costs of doing business:
  - (i) establish a joint Customs and Trade Facilitation committee
  - (ii) de facto harmonisation of customs procedures and electronic systems through adoption of international standards.
  - (iii) extend and improve single window systems for both export and import, with particular attention to countries with less developed systems
  - (iv) extend the use of risk management techniques
  - (v) provide up-to-date information on all trade and customs procedures from a single source
- (4) Include a Trade and Sustainable Development Chapter in the Trade Pillar of the Association Agreement

The proposed EU Mercosur Association Agreement provides an opportunity to integrate trade policy goals with wider sustainable development objectives, particularly environmental and social issues. The proposed Trade and Sustainable Development Chapter could include clauses to address specific social and environmental concerns relating to the proposed Agreement:

- reference to the requirement that both parties commit to the effective implementation of core labour standards and other basic decent work components.
- statement that both parties will ratify the ILO standards concerned, including Convention 169 relating to tribal and indigenous peoples
- Establishment of a EU Mercosur Trade SIA Forum with responsibility for monitoring the social and environmental impacts of the EU Mercosur Agreement. The body would provide for regular consultation with civil society in the EU and Mercosur, and would be required to report regularly, in a transparent manner, to high-level EU Mercosur Association Agreement meetings.

- Voluntary or mandatory certification for forest products and biofuels
- Commitment to multilateral agreements, such as the Kyoto Protocol
- EU Mercosur cooperation on the development of measures to reduce particulates and CO<sub>2</sub> emissions from automobiles, focusing particularly on technology development and transfer opportunities between Mercosur and EU in the areas of biofuels, engine design and emission control technology.
- Joint committee to report on the environmental consequences of increased production of biofuels in the EU and Mercosur
- EU Mercosur cooperation in promoting trade in environmental goods and services
- Commitment by both parties to the adoption and implementation of effective environmental regulation measures.

### **4.3 Cooperation and Political Pillar Measures**

The Cooperation Agreement signed in December 1995 in Madrid, which entered into force in July 1999. In contrast to the earlier phase of EU Mercosur development cooperation which was almost entirely project based, the EU's current programme covering the period 2007 – 2013, takes a more strategic approach and is intended to support the conclusion and implementation of the EU Mercosur Association Agreement, particularly the trade pillar.

It is proposed that the EC, in cooperation with the Mercosur partners, should consider the opportunities achieving greater synergies between the Interregional Framework Cooperation Agreement and the proposed Association Agreement, including measures in the cooperation and political pillars that could enhance, mitigate and/or prevent potential positive and negative impacts of the trade negotiations.

The proposed measures are as follows:

(1) support for regulatory policy capacity building in Mercosur, particularly in environmental regulation, public utility regulation (water and electricity sub-sectors) and financial sector regulation. This support should be based on a prior assessment of the capacity of the existing policy making and regulatory framework to respond to predicted changes. The Mercosur countries should be pro-active in identifying their technical assistance and expertise needs that can be best met through the EC Mercosur cooperation programme.

(2) Support for capacity building in regulatory and public policy analysis and design, through the provision of training in (Regulatory) Impact Assessment, drawing on the EC's extensive experience in the use of IA methods for better regulation design.

- (3) support for the establishment of a EU Mercosur Automotive Sector Forum with the aim of strengthening public-private cooperation. The members of the Forum would represent the EC, Mercosur Authorities, employers and labour.
- (4) support for a detailed impact assessment of the impact on the international competitiveness of the auto sector in both regions of replacing of regional-level regulations by international automobile technical standards (UN-ECE).
- (5) Provision of development assistance including education and training on sustainable forestry practices and alternative skills, and in monitoring the impacts of agricultural production, particularly in relation to soya.
- (6) Technical assistance measures and cooperation in order to strengthen institutions, the legislative framework and enforcement in relation to environmental protection and safeguarding areas of natural forest.
- (7) Strengthen systems to help Mercosur exporters to comply with REACH requirements, particularly by improving the provision of information and technical assistance through the WTO enquiry point and the European Chemicals Agency
- (8) Technical support and training for the development of improved systems for evaluating the suitability of collateral offered by SMEs
- (9) Joint EU-Mercosur development of guidance on implementation of the Basel principles
- (10) Implementation of the European Commission's Economic and Financial Committee (EFC) recommendations for strengthening international and cross-sector co-operation, particularly in monitoring cross-border financial institutions in the context of EU Mercosur cross border cooperation.

#### **4.4 Domestic Measures**

In addition to the measures proposed for inclusion in the EU Mercosur Association Agreement, the EU and Mercosur member state authorities can exercise domestic policy autonomy to implement measures that would either enhance the positive impacts of the EU Mercosur Association Agreement, or prevent or reduce the potential negative impacts. This section identifies a number of areas where the SIA analysis found that domestic policy interventions could be expected to be particularly advantageous. These are:

- (1) Strengthen environmental regulation in Mercosur countries to offset adverse impacts of forest conversion and expansion in agricultural production, while exploiting potential gains.
- (2) Fuller implementation in both Mercosur and the EU of the Basel Core Principles for Effective Banking Supervision, and implementation of any revisions to the Basel Principles that may be agreed in response to the current global crisis...
- (3) Research in both regions into the barriers to trade facilitation reforms beyond those to which commitments are made in the trade agreement



## 5. CONCLUSIONS

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The economic impacts of the proposed EU-Mercosur free trade area are likely to be positive overall in both Mercosur and the EU. The projected economic welfare gain is fairly small except in Paraguay, but additional gains can be expected from dynamic effects whereby productivity is enhanced through greater competition and economies of scale.

These gains could potentially be accompanied by increased environmental pressures, unless countered by appropriate mitigation measures. The main environmental impact of concern is a potentially significant loss of global biodiversity from increased agricultural production in Mercosur. The expected economic gain could also give rise to adverse social adjustment costs, particularly in Mercosur, if not mitigated by appropriate policy measures.

This final overview SIA and its accompanying sector studies have put forward a series of recommendations for preventing or mitigating the potentially adverse effects of the proposed EU-Mercosur free trade area and enhancing the beneficial ones.

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## **ANNEX 1: MODELLING THE EU-MERCOSUR ASSOCIATION AGREEMENT**

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### **Introduction**

Quantitative modelling of the effects of trade liberalisation provides a valuable source of information on the likely magnitude of the economic, social and environmental impacts of trade liberalisation in the main sectors and different groups of countries. In accordance with the terms of reference for the EU Mercosur SIA study, a computable general equilibrium (CGE) model was used to obtain quantitative estimates of the impacts of EU Mercosur trade liberalisation.

The CGE approach is based on the simulation of outcomes for a specified policy ‘shock’, and it has been widely used to estimate the impact of trade liberalisation, taking both partial and, more often, full implementation of liberalisation scenarios as policy shocks. CGE economic modelling studies rely on an extensive economic theoretical framework largely based upon the logic of general equilibrium and neoclassical economic theory, where economic agents display rational optimisation behaviour. All model results are specific to the details of the scenario (policy change) and structure imposed, especially assumptions regarding response elasticities. As a general rule, the greater the degree of trade liberalisation represented in the scenario (policy shock) and the more responsive the economy is assumed to be (as represented by structural parameters), the greater the effect of liberalisation predicted by the model. CGE models simulate the final equilibrium outcomes that are reached after the market process of factor reallocation and adjustment has been completed.

### **CGE Modelling of EU Mercosur Trade-Liberalisation**

This section presents the results from a model-based static comparative assessment of the economic, social and environmental impacts of a potential FTA between EU and Mercosur is expected to lead to economic gains for both the EU and the Mercosur, and understanding the size and the source of these gains is essential for the overall assessment of such an agreement.

Our analysis assesses the size and source of the static comparative economic gains from removing existing barriers to trade between the EU and Mercosur (but not internally within the Mercosur), and we focus on those effects that can be modelled using reliable data of world trade. We use a consistent and empirically well-founded analytical framework (so-called general equilibrium model) in which different scenarios of a free trade agreement can be evaluated and compared with the current situation (the baseline). The baseline for our analysis is therefore a global model of the production and trade structure for the entire world economy including the best available information about cost structures (including inputs, labour and capital) and price levels for both exported goods and those consumed domestically. We also include information about trade barriers, both in the form of tariffs, but also non-tariff barriers such as quotas etc. Using this information, we are able to model and reproduce the trade flows and production structures in the baseline year. The model uses the GTAP 6.2 database, which has baseline data for the year 2001. The database has been updated to adjust for changes in the trading environment, such as the phase-out of the agreement on textiles and clothing (ATC). See also the section on model data.

## The applied trade liberalisation scenario

Within this consistent and well-established modelling framework we analyse the effects of a scenario of a potential free trade agreement. No one knows what such an agreement will look like in details, and no one knows when it will be implemented. We have been asked by the Commission to look at the impacts of a scenario of full liberalisation of trade between the EU and Mercosur. While such a scenario might be desirable for both the EU and Mercosur, it is unlikely that full liberalization scenario can be agreed in the short term. The scenario for this analysis as defined by the European Commission covers the following elements:

- A removal of all tariffs and non-tariff barriers in agriculture, while keeping the domestic agriculture policies in both the EU and Mercosur unchanged
- A removal of all tariffs and non-tariff barriers in manufacturing, and thus providing full market access for non-agricultural products
- A removal of all barriers on cross-border trade in services (mode 1), while leaving aside the potential gains from opening the two economies for investment in services via lower barriers to consumption abroad, foreign establishment or movement of natural persons (thus modes 2, 3 and 4 are *not* included)
- A representation of trade facilitation measures (i.e. reducing barriers related to customs procedures and other administrative burdens directly related to trade), which for the purpose of the analysis has been modelled as reduction in trade costs of 1 percent<sup>124</sup>.

In summary, the applied scenario is a conservative estimate of an ambitious free trade agreement. The scenario is conservative in the sense that where ever needed we deliberately chose the most conservative assumptions, and we avoid overestimating the economic gains by only including the effects which are widely accepted to be well captured in this kind of model (e.g. we use a constant returns to scale model which provides more conservative evaluations of free trade agreements than models with increasing returns to scale).

We also restrain from formal modelling of effects where little is known about the actual flows and the factual barriers – as is the case for foreign direct investment in services. This does not mean that investment in services is irrelevant or unimportant. On the contrary, relaxing barriers to foreign establishment in services could bring further benefits to both economies, but the required data for formal modelling are unavailable.

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<sup>124</sup> Quantification of the economic benefits from trade facilitation is challenged by the lack of reliable and precise data and the complexity of the underlying issues. Quantitative studies generally show that reductions in trade transaction costs may result in welfare gains of the same or larger magnitude than those expected from tariff liberalization. These studies also generally show that no, or very few, countries would loose from global trade facilitation and that developing countries have the most to gain from implementation of trade facilitation measures, although important variations can be expected across countries, sectors, and types of traders (Francois et al., 2005; OECD, 2003a). In quantitative modelling, estimates in the range from 1 to 3 percent of trade costs are generally assumed. We have chosen the more conservative estimate of 1 percent trade facilitation.

Furthermore, we chose to model only the static comparative effects from trade liberalisation, and thereby leaving the dynamic effects from trade induced productivity gains aside. Again, we have deliberately chosen the most conservative assumption, and modelled the static comparative efficiency gains from better allocation of production factors between sectors based on today's production and cost structure. However, recent literature on the dynamics of trade liberalization suggest that trade liberalization can lead to greater international competition and thereby put increased pressure on domestic firms to improve productivity and to innovate, but such effects are not formally modelled and any such benefits should thus be added to the static comparative gains quantified in this analysis.

At the same time, the scenario is ambitious. It is ambitious in the sense that all barriers that can formally be included in the model are removed in the scenario. That being said, we also underline that the scenario is not chosen because we consider it as the most likely, nor necessarily as the most desirable scenario. It could turn out that both negotiating parties find it useful to negotiate further liberalisations in services, especially in reducing the barriers to foreign establishment of service firms, while keeping some of the existing protection in sensitive sectors such as agriculture, food and automobiles, or at least consider very long transition periods for such ambitious trade reforms.

The above mentioned scenario is deliberately chosen as the one giving the best possibilities for revealing potential social and environmental side-effects that needs to be dealt with in order to achieve the economic gains from free trade. When negotiating a final agreement, the current analysis can then serve as part of the evidence-base and make negotiators well-prepared to tackle potential concerns.

## **Summary of results**

In this study we have analyzed the possible effects on the Mercosur and the EU from a full free trade agreement, where all of the above mentioned barriers are removed. We use a well-known and state-of-the-art general equilibrium model (CGE-model) of world trade for the most recent year.

If the scenario described above were fully implemented in this setting (corresponding to today's situation) we estimate conservatively that the Mercosur countries all in all will obtain a welfare gain amounting to around 9 billion USD. The welfare gain captures the effect from a more efficient allocation of production factors between sectors, lower prices on imported goods and services and higher wages as the economies have adjusted to the new equilibrium without barriers. The welfare gain also takes into account that tariff revenues are lost. But as shown, it is all in all an economic welfare improvement for the Mercosur area.

The corresponding gain in the European union (EU25) is around 4 billion USD (or 0.1 percent of GDP), measured at current price levels and with the production structure and productivity levels as in the model baseline. These efficiency gains primarily arise because Mercosur has a comparative advantage in agricultural products and processed food, and because the EU has a comparative advantage in manufacturing and services. This is the general picture, but as our studies show, there are also specialized comparative advantages at the sectoral level.

Overall, the results of our analysis show that a full free trade scenario between the two regions will lead to positive net income effects across all countries. Looking closer at the effects of each trade liberalization measure in the scenario, we find that for the Mercosur countries, tariff reductions are the single most important measure, while our analysis shows that trade facilitation is of relatively large importance to the EU. Trade liberalization of cross-border services in itself does not give as large a contribution to the overall result. However, liberalizing other modes of trade in services, especially foreign establishment (FDI), certainly constitute an important part of the trade negotiations, and economic effects should be expected in the service sector as well as economy-wide from liberalising other modes of service trade.

At the aggregate, production and output will increase in both economies. On a sector specific level, we find that in general, there will be an overall contraction of Mercosur manufactured goods and expansion in agricultural goods, most notably so for processed foods. For the EU the effect is the reverse, i.e. output of manufacturing goods will increase, while the agricultural sectors, and again processed foods are expected to shrink in relative importance. Whether some sectors will shrink in absolute terms depends on a number of assumptions to be made outside the model, i.e. will the identified upward pressure on unskilled wages in Mercosur attract labour from the informal sector to the formal sector? In this case the absolute change even in those sectors contracting in relative terms could be positive.

We also include the effects of removing the impediments to cross-border trade in services. However, large gains from trade in services are expected to arise from removing barriers to foreign establishment. These effects are not included in the model, and therefore substantial additional gains are expected from liberalising in this area as well.

Besides the static efficiency gains that have been modelled in a state-of-the-art CGE-model there are also other potential effects:

- Economic gains from removing barriers to foreign direct investment
- Dynamic gains from trade-induced productivity gains
- Economic gains from expanding the labour force in Mercosur (from informal to formal sector)
- The loss of tariff revenues is included in the welfare economic evaluation. However, potential negative welfare effects from replacing the lost tariff revenues with revenues from raising other taxes and the distortion effects hereof are not considered.

These aspects of free trade are also important, but have not been included in the model.

## Overview of the model

The model employed in this study is a global, multi-regional, multi-sectoral general equilibrium model. In each region, there is a single representative household, which allocates its expenditures over personal consumption today and savings (future consumption). The representative household owns all production factors and receives income by selling them to firms. It also receives income from tariff revenues. Part of the income is distributed as subsidy payments to some sectors.

On the production side, firms use domestic production factors (capital, labour and land) and intermediate inputs from domestic and foreign sources to produce outputs in the most cost-efficient way that technology allows. Factor markets are competitive, and labour and capital are mobile between sectors but not between regions.

Prices on goods and factors adjust until all markets are simultaneously in (general) equilibrium. This means that we solve for equilibrium in which all markets clear. While we model changes in gross trade flows, we do not model changes in net international capital flows. Rather our capital market closure involves fixed net capital inflows and outflows. The model is described in more detail in the technical annex.

## Model Data

The GTAP version 6.2 dataset is benchmarked to 2001, and includes detailed information on input-output, trade and final demand structures for the whole world this year. However, there are some important changes to the trade policy environment that have happened since then, that we wish to include in the basic dataset. Therefore, before conducting any policy experiments, we first run a pre-experiment, where we include the ATC phase-out, China's accession to the WTO, EU 10 joining the European Union in 2004, as well as Venezuela joining the Mercosur in 2006.

*In short, the data set we employ for the analysis is a representation of a notional world economy in 2001; this should be borne in mind when interpreting the results of the model.*

For the purpose of this study, the GTAP data base has been aggregated into 22 sectors and 10 regions. Table A.1 below shows the sector structure.

**Table A.1: Sectors in the Model**

| Primary sectors | Manufacturing Sectors | Service sectors    |
|-----------------|-----------------------|--------------------|
| Grains          | Textiles and Clothing | Utilities          |
| Crops           | Wood, Pulp and Paper  | Construction       |
| Animal Products | Chemicals             | Wholesale, retail  |
| Forestry        | Metals                | Communications     |
| Fisheries       | Motor vehicles        | Transport Services |



|                |                     |                   |
|----------------|---------------------|-------------------|
| Mining         | Transport Equipment | Finance           |
| Processed Food | Machinery           | Business Services |
|                |                     | Other Services    |

*Note: The detailed mapping between the aggregated sectors and the original GTAP sectors, together with a list of regions used in the model can be found in the Annex.*

Most sectors in model are self-explaining from the sector label in the table above. A few sectors need a little more explanation. “Processed food” is covering product categories like processed meat, vegetable oils and fats, dairy products, processed rice, sugar, and beverages and tobacco products. The label “other services” covers travel and tourism receipts, hotels, and other personal services, as well as dwellings.

### **Economic effects in the scenario compared to the baseline situation**

We now turn to the results of the analysis and we focus on describing and discussing the main results.

#### *Real Income Effects*

When we construct our key economic indicator, real income, we combine the effect of changes in incomes and changes in consumer price levels and calculate the net economic effect for a representative consumer in each economy<sup>125</sup>, and look at the results in the free trade scenario compared to the constructed baseline.

We show that the trade liberalisation scenario defined above have positive real income effects for all countries in Mercosur, and a positive real income effect for the European Union as a whole (EU25). The effect on real income is also positive for EU15 as well as EU10 taken separately. In total both EU and Mercosur gain economically from free trade. Seeing that the Mercosur countries have higher initial barriers to trade, these countries are expected to experience larger gains from free trade, mainly because of the increase in purchasing power for domestic consumers when the high tariffs on European goods are dropped. This is confirmed by the model simulations. In absolute terms, a potential full FTA is expected to lead to a real income gain of a little over 9 billion US\$ for the Mercosur countries. For the EU25, the corresponding figure is close to 4 billion US\$.

Take the combined Mercosur economy as example. Real income basically increases through two channels. One is through the generation of higher incomes when export-oriented sectors expand their activity, as does for example the Brazilian processed food sector (e.g. meat products and dairy products). The other effect is through the reduction of consumer prices for imported goods when tariffs on European imports are removed. We need to keep both these effects in mind when evaluating the economic impact of a free trade agreement on final consumers.

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<sup>125</sup> Technically we measure the change in so-called ‘equivalent variation’ (EV). The idea is that we find the income required to ensure that we are at the new level of utility but with the old set of prices. Assume that trade liberalisation makes prices fall. At the original price level, what is then the minimum amount of money which we would have to give to our representative consumer to make her as well off as she will be after the price fall? The answer is EV. EV is almost always used as the best lower bound approximation of the true welfare effect in terms of consumer’s surplus.

The national real income effects are summarized in Table A.2 below. As can be seen from the table, large countries have large absolute gains. Thus, approximately three quarters of the net income gain in Mercosur is attributable to Brazil and the lions part of the European gains are not surprisingly found in EU15.

**Table A.2: Real Income Effects, Overview**

|           | Gain in Millions of<br>US\$ | Change from baseline |
|-----------|-----------------------------|----------------------|
| Argentina | 1 255                       | + 0.5%               |
| Brazil    | 6 883                       | + 1.5%               |
| Paraguay  | 643                         | + 10.0%              |
| Uruguay   | 369                         | + 2.1%               |
| Venezuela | 91                          | + 0.1%               |
| EU15      | 3700                        | + 0.1%               |
| EU10      | 201                         | + 0.1%               |

*Source: Model simulations*

Seeing that the Mercosur region is economically much smaller than the European Union<sup>126</sup>, this naturally implies that the relative effects on real income for Mercosur are larger. For Argentina and Venezuela, the effects are 0.5 and 0.1 percent of GDP respectively, while for Brazil the corresponding figure is 1.5 percent. The biggest relative effects are shown to arise in Uruguay and Paraguay, where a full FTA between Mercosur and EU25 is expected to lead to increases in net income amounting to 2.1 and 10.0 percent of GDP. For the European Union the relative net income effect is shown to be approximately 0.1 percent.

In order to find out more about the effects of different trade liberalization measures, we now decompose the real income effects with respect to tariff reductions, service liberalizations and trade facilitation.

Tariff reductions are the most important factor for the gains from trade liberalization in the Mercosur countries. This measure accounts for a little over 60 percent of the real income effect. The second most important factor for the Mercosur countries is trade facilitation, which would account for approximately 30 percent of the gains under the assumptions made in the model. It is interesting to note, that although our liberalization scenario assumes a full liberalization of trade in services for Mode 1, this measure is shown to have a limited effect on outcome. In short, tariff reductions and trade facilitation are very important for the Mercosur to realize the potential gains of a free trade agreement with the EU. The main reason for this result is that Mercosur is facing high tariffs in EU on those trade flows that are already the most important ones. Therefore, if substantial tariffs are removed on those goods which are already traded the most, then this is inevitably having a large impact.

<sup>126</sup> i.e. in GDP terms, the Mercosur market is less than 10 % of the European Union, according to the World Bank World Development Indicators (WDI) 2005.

On EU's part, trade facilitation is shown to be the single most important trade liberalization measure. Here, trade facilitation accounts for approximately half the increase in real income for EU25. Tariff reductions are attributable for 35 percent, while the corresponding figure for service liberalization is 15 percent. Thus, for both regions tariff reductions and trade facilitation are shown to be central, while the gains are not very sensitive to the level of Mode 1 liberalization taking place in the service sector.

**Table A.3: Decomposition of Real Income Effects, (Millions of US\$)**

|                      | <b>Total gain</b> | <b>Of which from Goods liberalisation</b> | <b>Of which from Cross-border Service Trade Liberalization</b> | <b>Of which from Trade Facilitation</b> |
|----------------------|-------------------|---|--|---|
| Argentina            | 1 255             | 411                                       | 138  | 705                                     |
| Brazil               | 6 883             | 4 510                                     | 465  | 1 908                                   |
| Paraguay             | 643               | 502                                       | 12   | 129                                     |
| Uruguay              | 369               | 272                                       | 21   | 76                                      |
| Venezuela            | 91                | -267                                      | 61   | 297                                     |
| Total Mercosur       | 1103              | 507                                       | 697  | 502                                     |
| EU15                 | 3 700             | 1 306                                     | 558  | 1 836                                   |
| EU10                 | 201               | 39  | 18   | 144                                     |
| Total European Union | 201               | 39  | 576  | 144                                     |

*Source: Model simulations*

### *Output effects*

In this section, we describe the changes in output in each country. Here we measure the changes in value added holding producers prices constant. This economic indicator is thus used to analyze how much more value is created from expanding production in each economy as a result of our trade liberalization scenario. Since we hold producer prices constant this is an aggregated indicator for the goods producing sectors to reflect the changes in physical output due to free trade.

First we summarize the overall national effects on production, and later we go on to discuss the changes in sectoral output for each country. Looking at the increase in economy-wide output, the largest relative effects are in Mercosur, again most notably so in Paraguay, where output is expected to increase by 2.5 percent as a result of a potential FTA. Also, the expected effects are quite large for Uruguay and Brazil, with expected increases of close to one percent. For Argentina, Venezuela and the European Union, the effects on total output are smaller. The national changes in output are summarized in table A.4 below.

**Table A.4: Economy-wide output changes**

|                      | <b>Argentina</b> | <b>Brazil</b> | <b>Uruguay</b> | <b>Paraguay</b> | <b>Venezuela</b> | <b>EU15</b> | <b>EU10</b> |
|----------------------|------------------|---------------|----------------|-----------------|------------------|-------------|-------------|
| Change from baseline | + 0.3%           | + 0.8%        | + 2.5%         | + 0.9%          | + 0.3%           | + 0.1%      | + 0.1%      |

*Source: Model Simulations*

*Note: Output is measured by value added (GDP) at given produce prices.*

### *Effects on Sectoral Outputs*

Disaggregating the economy-wide output changes, we find that the specific barriers removed in our scenario leads to some changes in the production structure across sectors. These changes are summarized in Table A.5 and A.6 below. Overall, a pattern emerges where, for Mercosur, there is an increase in the production of agricultural goods, while the manufacturing sectors in general contract. The opposite is true for Europe, here, production of agricultural goods is expected to lose importance, while the manufacturing sector in general will expand. The changes in sectoral output composition mirror the underlying initial levels of trade protection, i.e. domestic output is expected to decrease as a result of increased competition, in the industries that initially enjoyed high levels of import protection.

Production of grains, other crops, animal products and processed foods are expected to increase across all Mercosur countries. Meanwhile, in the manufacturing sectors metals, motor vehicles, transport equipment and machinery are all shown to contract. As pointed out in the previous section, these are among the sectors where the ex-ante Mercosur trade barriers were higher than their European counterparts.

**Table A.5: Sectoral Output Shares in Mercosur in baseline model data**

| <b>Value Added Shares, 2001</b>  |                  |               |                 |                |
|----------------------------------|------------------|---------------|-----------------|----------------|
|                                  | <b>Argentina</b> | <b>Brazil</b> | <b>Paraguay</b> | <b>Uruguay</b> |
| Grains                           | 1.5              | 0.5           | 2.3             | 1.9            |
| Other crops                      | 2.5              | 2.6           | 13.2            | 1.6            |
| Animal products                  | 1.8              | 1.8           | 4.7             | 7.1            |
| Forestry                         | 0.2              | 0.2           | 2.1             | 0.5            |
| Fisheries                        | 0.1              | 0.0           | 0.1             | 0.3            |
| Mining                           | 2.2              | 1.3           | 0.1             | 0.3            |
| Processed foods                  | 3.9              | 3.4           | 4.8             | 7.4            |
| Textiles and clothing            | 1.5              | 1.5           | 1.9             | 2.2            |
| Lumber, wood, pulp, paper        | 1.8              | 1.8           | 1.4             | 1.4            |
| Chemicals                        | 2.6              | 3.4           | 0.6             | 3.1            |
| Metals and non-metallic minerals | 2.3              | 2.7           | 2.6             | 2.5            |
| Motor vehicles                   | 0.9              | 0.8           | 0.03            | 0.5            |
| Transport equipment              | 0.2              | 1.0           | 0.0             | 0.1            |
| Machinery                        | 1.7              | 4.3           | 1.0             | 1.1            |
| Utilities                        | 2.2              | 3.2           | 18.8            | 4.4            |
| Construction                     | 4.2              | 9.3           | 4.6             | 3.3            |
| Trade                            | 14.4             | 9.0           | 18.6            | 8.6            |
| Communications                   | 2.3              | 1.6           | 1.3             | 2.2            |
| Transport services               | 5.3              | 2.4           | 3.3             | 10.4           |
| Financial services               | 3.9              | 8.5           | 2.6             | 3.8            |
| Business services                | 6.4              | 13.2          | 3.0             | 5.3            |
| Other services                   | 38.2             | 27.4          | 12.9            | 31.8           |
| <b>Total</b>                     | <b>100</b>       | <b>100</b>    | <b>100</b>      | <b>100</b>     |

*Source: Model simulations*

**Table A.6: Sectoral Output Shares in Mercosur in full free trade scenario**

| <b>Value Added Shares, 2001</b>  |                  |               |                 |                |
|----------------------------------|------------------|---------------|-----------------|----------------|
|                                  | <b>Argentina</b> | <b>Brazil</b> | <b>Paraguay</b> | <b>Uruguay</b> |
| Grains                           | 1.7              | 0.6           | 2.6             | 2.1            |
| Other crops                      | 2.5              | 2.6           | 12.2            | 1.6            |
| Animal products                  | 1.8              | 2.3           | 6.4             | 7.4            |
| Forestry                         | 0.2              | 0.2           | 1.9             | 0.5            |
| Fisheries                        | 0.1              | 0.0           | 0.1             | 0.4            |
| Mining                           | 2.2              | 1.3           | 0.1             | 0.3            |
| Processed foods                  | 4.1              | 5.0           | 8.3             | 8.7            |
| Textiles and clothing            | 1.5              | 1.4           | 1.4             | 1.8            |
| Lumber, wood, pulp, paper        | 1.7              | 1.7           | 1.1             | 1.3            |
| Chemicals                        | 2.6              | 3.2           | 0.5             | 2.9            |
| Metals and non-metallic minerals | 2.2              | 2.3           | 2.1             | 2.2            |
| Motor vehicles                   | 0.8              | 0.6           | 0.0             | 0.3            |
| Transport equipment              | 0.2              | 0.8           | 0.0             | 0.1            |
| Machinery                        | 1.4              | 3.3           | 0.4             | 0.7            |
| Utilities                        | 2.2              | 3.2           | 17.4            | 4.5            |
| Construction                     | 4.2              | 9.4           | 5.0             | 3.4            |
| Trade                            | 14.3             | 9.1           | 18.1            | 8.7            |
| Communications                   | 2.3              | 1.6           | 1.3             | 2.2            |
| Transport services               | 5.3              | 2.4           | 3.3             | 10.1           |
| Financial services               | 3.8              | 8.4           | 2.0             | 3.8            |
| Business services                | 6.4              | 13.0          | 2.6             | 5.2            |
| Other services                   | 38.3             | 27.4          | 13.1            | 32.0           |
| <b>Total</b>                     | <b>100</b>       | <b>100</b>    | <b>100</b>      | <b>100</b>     |

*Source: Model simulations*

For **Argentina**, a potential FTA with the EU is expected to lead to an increase in overall production amounting to 0.3 percent. In general, the sector specific effects are not so big in Argentina as for the other Mercosur countries. Comparing the changes in output to their relative share of total production gives a better picture of each sector's effect on the overall economy. Each industry's share of production is available in the annex. For Argentina, output in the sector 'other service', is attributable to 38 percent of total value added, thus the 0.2 percent increase in this is expected to have a significant effect on the overall economy. Meanwhile, the 15 percent decrease in machinery sector, although

dramatic on a sector specific level, does not translate to a big effect on the general Argentinean economy, since this sector only accounts for 1.7 percent of total production.

The **Brazilian** economy is shown to expand overall output by 0.8 percent as a result of a potential FTA. Here, the biggest relative increase is shown to occur in the processed food sector, which is expected to expand by close to 50 percent. Seeing that 3.5 percent of total production is attributable to this sector, this large increase will have a significant effect<sup>127</sup> on the overall output increase in the economy. The same is true for animal products, which is accountable for 1.8 percent of total value added, and is expected to increase by 32 percent, which implies an overall effect of 0.6 percent. Motor vehicles are shown to be the sector expected have the biggest contraction, here production will decrease its share of total value added from 0.9% to 0.6%. However, the overall effects of this decrease will not be very big, since less than one percent of total value added is attributable to this sector. The production of machinery is also expected to contract in relative terms.

The effects in the applied free trade scenario are expected to have large effects on the **Paraguayan** economy (detailed results are shown in appendix). As previously pointed out, this is true at the aggregated level i.e. the overall effect on output is expected to be 2.5 percent, but also on disaggregate level. As can be seen from the table above, the largest absolute increase is shown to occur in the processed foods sector, where output is expected to increase by almost 75 percent. Seeing that this sector is accountable for close to 5 percent of overall production, this leads to a big increase (i.e.3.5%) of total value added. Animal products is the sector with the second biggest expected expansion, i.e. 37 percent. Close to five percent of all Paraguayan production stems from this sector, so a large share of the overall gain comes from this increase as well. On the contracting side, the motor vehicles, transport equipment and machinery sectors are all expected to lessen their importance in terms of share of total value added. Although these are large sector specific changes, the effect on total output is very limited since these sectors account for less than 0.1 percent of overall production. The utilities sector, which is expected to decrease by 7.8 percent, is the single most important contracting sector, since it is accountable for close to 20 percent of total production. (i.e. the decrease in this sector is accountable for a total decrease of 1.5 percent of overall production).

In **Uruguay**, the processed foods sector has the relatively largest share of overall production in all of Mercosur. 7.4 percent of total value added in Uruguay is attributable to this sector, the expected 17 percent increase in production in this sector, is accountable for a 1.3 percent increase in overall production. This is counteracted by the expected decrease in production in the textiles and clothing sector, which accounts for a decline of 0.3 percent of total value added. Please refer to appendix for details.

The total effect on **EU15** output sums up to 0.1 percent of GDP. The lowering of Mercosur import protection leads to an expansion of the European metals, machinery and automotive sectors. In general, production of manufacturing goods is expected to increase, while the agricultural sectors in general and processed foods in particular are expected to contract. Meanwhile, the service sectors, which are attributable to about 75 percent of EU output value, are also positively affected from the removal of the barriers

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<sup>127</sup> i.e.  $0.466 \times 3.5 = 1.6\%$  to be exact.

to cross-border trade in services. However, the service sectors will further benefit from reducing the barriers to foreign establishment.

**Table A.7: Changes in Sectoral Output, EU**

**Value Added Shares in baseline model data (2001) and in the scenario of free trade**

|                       | Baseline data |               | Free trade scenario |               | Change in scenario from baseline |        |
|-----------------------|---------------|---------------|---------------------|---------------|----------------------------------|--------|
|                       | EU15          | EU10          | EU15                | EU10          | ΔEU15                            | ΔEU10  |
| Grains                | 0,16%         | 0,77%         | 0,15%               | 0,76%         | -0,01%                           | -0,01% |
| Crops                 | 0,92%         | 2,05%         | 0,92%               | 2,05%         |                                  | -0,01% |
| Animal Products       | 0,58%         | 1,29%         | 0,56%               | 1,28%         | -0,02%                           | -0,01% |
| Forestry              | 0,19%         | 0,50%         | 0,19%               | 0,50%         |                                  |        |
| Fisheries             | 0,28%         | 0,08%         | 0,28%               | 0,08%         |                                  |        |
| Mining                | 0,44%         | 1,51%         | 0,44%               | 1,51%         |                                  |        |
| Processed Foods       | 3,17%         | 6,17%         | 3,01%               | 6,00%         | -0,16%                           | -0,17% |
| Textiles and Clothing | 1,22%         | 2,73%         | 1,23%               | 2,73%         | +0,01%                           | +0,01% |
| Wood, Pulp, Paper     | 2,34%         | 3,50%         | 2,34%               | 3,50%         |                                  | +0,00% |
| Chemicals             | 3,33%         | 3,74%         | 3,34%               | 3,75%         | +0,01%                           | +0,01% |
| Metals                | 3,68%         | 5,54%         | 3,71%               | 5,58%         | +0,03%                           | +0,03% |
| Motor Vehicles        | 1,94%         | 1,76%         | 1,97%               | 1,78%         | +0,03%                           | +0,01% |
| Transport Equipment   | 0,53%         | 0,56%         | 0,53%               | 0,57%         |                                  | +0,01% |
| Machinery             | 6,58%         | 6,55%         | 6,67%               | 6,60%         | +0,09%                           | +0,05% |
| Utilities             | 2,10%         | 3,86%         | 2,10%               | 3,87%         |                                  | +0,01% |
| Construction          | 6,04%         | 6,29%         | 6,04%               | 6,29%         |                                  |        |
| Wholesale, Retail     | 12,99%        | 13,13%        | 12,99%              | 13,15%        |                                  | +0,01% |
| Communications        | 2,46%         | 2,33%         | 2,46%               | 2,33%         |                                  |        |
| Transport Services    | 4,36%         | 6,10%         | 4,36%               | 6,11%         | +0,01%                           | +0,02% |
| Finance               | 4,17%         | 2,28%         | 4,17%               | 2,28%         |                                  |        |
| Business Services     | 11,91%        | 11,62%        | 11,92%              | 11,62%        | +0,01%                           |        |
| Other Services        | 30,62%        | 17,60%        | 30,62%              | 17,62%        |                                  | +0,02% |
| <b>Total</b>          | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b>       | <b>100,0%</b> |                                  |        |

*Source: Model simulations*

For **EU10**, the effects are very similar to EU15 with an expected contraction in the agricultural sectors, most notably so for processed food, which for EU10 is a substantial sector in terms of overall production (i.e. 6.2%). Here, the manufacturing sectors are also expected to increase their importance, with significant overall effects in the sectors metals and machinery which are accountable for about six percent of total output each.



## Trade Effects

Having analyzed the expected changes in production, we now turn our attention to the effects on trade. As previously pointed out, production in the agricultural sectors in Mercosur are expected to expand, while the manufacturing sectors in these sectors will decrease output as a result of trade liberalization. Table A.8 below show the changes in export for each sector in Mercosur.

**Table A.8: Change in Exports, Mercosur (value of exports, millions. USD)**

|                               | Argentina    | Brazil        | Paraguay     | Uruguay    | Mercosur      | Pct of<br>baseline (%) |
|-------------------------------|--------------|---------------|--------------|------------|---------------|------------------------|
| Grains                        | 478          | -191          | -15          | 16         | 288           | 7                      |
| Crops                         | 22           | -2.024        | -218         | -3         | -2.137        | -22                    |
| Animal products               | -21          | -118          | -9           | -22        | -161          | -36                    |
| Forestry                      | 1            | -11           | -2           | -4         | -16           | -12                    |
| Fisheries                     | 2            | -6            | -            | -2         | -5            | -7                     |
| Mining                        | 8            | 243           | -            | -1         | 361           | 2                      |
| Processed foods               | 2829         | 31.203        | 1.829        | 1.114      | 37.242        | 210                    |
| Textiles and clothing         | 125          | -244          | -51          | -88        | -229          | -4                     |
| Wood, pulp, paper             | 42           | -456          | -32          | -16        | -449          | -8                     |
| Chemicals                     | 143          | -378          | -14          | -36        | 124           | 1                      |
| Metals                        | 215          | -448          | -8           | -18        | 256           | 2                      |
| Motor vehicles                | 8            | -886          | -            | -35        | -816          | -11                    |
| Transport equipment           | 31           | -411          | -            | -4         | -380          | 9                      |
| Machinery                     | -33          | -1.436        | -15          | -33        | -1.412        | -13                    |
| Utilities                     | -31          | 5             | -138         | 38         | -123          | -6                     |
| Construction                  | 1            | 3             | -            | -          | 4             | 9                      |
| Wholesale, Retail             | 43           | 121           | -11          | 5          | 181           | 16                     |
| Communications                | 92           | 49            | -1           | 5          | 150           | 24                     |
| Transport services            | 20           | -72           | -8           | -55        | -62           | -1                     |
| Finance                       | 28           | 80            | -5           | 8          | 117           | 13                     |
| Business services             | 160          | 672           | -7           | 2          | 857           | 16                     |
| Other services                | 237          | 18            | -9           | 5          | 332           | 14                     |
| <b>Total</b>                  | <b>4.399</b> | <b>25.735</b> | <b>1.284</b> | <b>874</b> | <b>34.124</b> | <b>26</b>              |
| Change in country exports (%) | 14           | 38            | 42           | 27         | 26            |                        |
| Share of Mercosur change (%)  | 13           | 75            | 4            | 3          | 100           |                        |

*Source: Model simulations; Note: Intra Mercosur trade included*

As can be seen in Table A.8, the expected changes in exports are largely in line with the prediction with regards to changes in production, although the overall increase in agricultural production is mainly spilling over in an increase in processed foods. Above, the primary agricultural sectors, i.e. grains, crops, and animal products are all shown to increase in Brazil in Table A.9, however, they are shown to decrease in exports. The underlying reason for this is that these products are used as intermediate inputs in the processed foods sector, which could increase as much as triple. This is also true for Paraguay.

It is always difficult to predict the impact of large changes, but given that the EU in the base year apply a very high protection against Paraguayan food products (92%) we can

certainly predict a large increase on this trade link if these barriers are completely removed.

Mercosur imports are also expected to increase in the free trade scenario, and when the intra-Mercosur trade is counted and measured in values imports increase more than exports and the trade balance is worsened, cf. Table A.9.

**Table A.9: Change in Imports, Mercosur (value of imports, millions. USD)**

|                               | Argentina | Brazil       | Paraguay      | Uruguay      | Mercosur     | Pct of baseline (%) |
|-------------------------------|-----------|--------------|---------------|--------------|--------------|---------------------|
| Grains                        | 4         | 776          | 18            | 3            | 801          | 68                  |
| Crops                         | 63        | 614          | 101           | 13           | 790          | 57                  |
| Animal products               | 21        | 284          | 29            | 16           | 349          | 189                 |
| Forestry                      | 0         | 7            | 0             | 0            | 7            | 38                  |
| Fisheries                     | 1         | 15           |               | 2            | 19           | 36                  |
| Mining                        | -1        | -253         |               | -10          | -265         | -6                  |
| Processed foods               | 532       | 4.199        | 645           | 521          | 5.897        | 205                 |
| Textiles and clothing         | 203       | 919          | 115           | 78           | 1.316        | 42                  |
| Wood, pulp, paper             | 190       | 580          | 54            | 36           | 860          | 32                  |
| Chemicals                     | 264       | 1.487        | 88            | 41           | 1.880        | 10                  |
| Metals                        | 286       | 1.768        | 105           | 60           | 2.220        | 38                  |
| Motor vehicles                | 527       | 7.906        |               | 28           | 5.461        | 90                  |
| Transport equipment           | -1        | -255         |               | 0            | -256         | -7                  |
| Machinery                     | 1.440     | 8.249        | 352           | 117          | 10.158       | 35                  |
| Utilities                     | -79       | 108          | 1             | 9            | 38           | 2                   |
| Construction                  | 13        | 16           |               |              | 29           | 49                  |
| Wholesale, Retail             | 198       | 623          | 26            | 25           | 872          | 41                  |
| Communications                | 36        | -9           | 3             | 16           | 47           | 8                   |
| Transport services            | -30       | 219          | 36            | 38           | 263          | 4                   |
| Finance                       | 193       | 537          | 53            | 15           | 799          | 39                  |
| Business services             |           | 267          | 2.334         | 21           | 29           | 2.651               |
| Other services                |           | 433          | 800           | 44           | 77           | 1.354               |
| <b>Total</b>                  |           | <b>4.560</b> | <b>27.925</b> | <b>1.755</b> | <b>1.115</b> | <b>35.290</b>       |
| Change in country imports (%) | 18        | 39           | 64            | 26           | 34           |                     |
| Share of Mercosur change (%)  |           | 13           | 79            | 5            | 3            | 100                 |

Source: Model simulations

Note.: Intra Mercosur trade included

The corresponding results for the EU are very similar to the expected changes in output. (Tables A.10 and A.11)

**Table A.10: Changes in Exports, EU (value of trade, million. USD)**

|                               | <b>EU15</b>   | <b>EU10</b> | <b>EU25</b>   | <b>Pct of baseline (%)</b> |
|-------------------------------|---------------|-------------|---------------|----------------------------|
| Grains                        | -302          | -7          | -309          | -4.2                       |
| Crops                         | 55            | -5          | 50            | 0.2                        |
| Animal products               | -263          | -7          | -270          | -3.3                       |
| Forestry                      | 0             | -1          | -1            | 0.0                        |
| Fisheries                     | -9            | 0           | -9            | -0.3                       |
| Mining                        | -19           | 0           | -19           | -0.1                       |
| Processed foods               | -6.697        | -178        | -6.872        | -5.0                       |
| Textiles and clothing         | 1.051         | 24          | 1.075         | 0.8                        |
| Wood, pulp, paper             | 113           | 0           | 113           | 0.1                        |
| Chemicals                     | 1.466         | 32          | 1.498         | 0.4                        |
| Metals                        | 1.469         | 113         | 1.583         | 0.7                        |
| Motor vehicles                | 4.545         | 133         | 4.679         | 1.7                        |
| Transport equipment           | 79            | 34          | 113           | 0.1                        |
| Machinery                     | 9.327         | 318         | 9.645         | 1.4                        |
| Utilities                     | -11           | 6           | -4            | 0.0                        |
| Construction                  | 0             | 0           | 0             | 0.0                        |
| Wholesale, Retail             | 0             | 4           | 4             | 0.0                        |
| Communications                | 0             | 0           | 0             | 0.0                        |
| Transport services            | 244           | 25          | 269           | 0.2                        |
| Finance                       | 0             | 0           | 0             | 0.0                        |
| Business services             | 170           | 0           | 170           | 0.1                        |
| Other services                | 0             | 5           | 5             | 0.0                        |
| <b>Total</b>                  | <b>11.222</b> | <b>497</b>  | <b>11.719</b> | <b>0.4</b>                 |
| Change in country imports (%) | 0.4           | 0.3         | 0.4           |                            |
| Share of Mercosur change (%)  | 96            | 44          | 100           |                            |

*Source: Model simulations, including intra-EU trade*

**Table A.11: Changes in Imports, EU (value of trade, million. USD)**

|                               | <b>EU15</b>   | <b>EU10</b> | <b>EU25</b>   | <b>Pct of baseline (%)</b> |
|-------------------------------|---------------|-------------|---------------|----------------------------|
| Grains                        | -116          | -6          | -123          | -1.8                       |
| Crops                         | -1.655        | -12         | -1.667        | -3.4                       |
| Animal products               | -535          | -6          | -541          | -5.5                       |
| Forestry                      | -22           | 0           | -22           | 0.6                        |
| Fisheries                     | -86           | 0           | -86           | -2.3                       |
| Mining                        | 384           | 0           | 384           | 0.3                        |
| Processed foods               | 29.918        | -175        | 29.743        | 23.0                       |
| Textiles and clothing         | 378           | 23          | 401           | 0.2                        |
| Wood, pulp, paper             | 6             | 0           | 6             | 0.0                        |
| Chemicals                     | 615           | 52          | 668           | 0.2                        |
| Metals                        | 1.623         | 114         | 1.737         | 0.8                        |
| Motor vehicles                | 1.069         | 100         | 1.170         | 0.5                        |
| Transport equipment           | 88            | 40          | 128           | 0.2                        |
| Machinery                     | 3.187         | 411         | 3.598         | 0.5                        |
| Utilities                     | 250           | 4           | 253           | 1.6                        |
| Construction                  | 10            | 0           | 10            | 0.1                        |
| Wholesale, Retail             | 261           | 3           | 263           | 0.4                        |
| Communications                | 113           | 0           | 113           | 0.6                        |
| Transport services            | 46            | 14          | 60            | 0.0                        |
| Finance                       | 141           | 0           | 141           | 0.3                        |
| Business services             | 993           | 0           | 993           | 0.6                        |
| Other services                | 419           | 3           | 422           | 0.5                        |
| <b>Total</b>                  | <b>37.088</b> | <b>565</b>  | <b>37.653</b> | <b>1.4</b>                 |
| Change in country imports (%) | 1.5           | 0.3         | 1.4           |                            |
| Share of Mercosur change (%)  | 98            | 2           | 100           |                            |

*Source: Model simulations, including intra-EU trade*

As could be expected, trade liberalization implies an overall increase in export for all countries in Mercosur and the EU. The aggregated changes in national imports and exports are summarized in Table A.12

**TableA.12: National Trade Balance Effects (percentage change)**

|                     | <b>Argentina</b> | <b>Brazil</b> | <b>Uruguay</b> | <b>Paraguay</b> | <b>EU15</b> | <b>EU10</b> |
|---------------------|------------------|---------------|----------------|-----------------|-------------|-------------|
| % change in exports | +14%             | +38%          | +42%           | +27%            | +0,4%       | +0,3%       |
| % change in imports | +18%             | +39%          | +64%           | +26%            | +1.5%       | +0.3%       |

*Source: Model estimations*

The largest increases in export are evident in the Mercosur countries. The increases in exports are expected to be big in Brazil, Uruguay and Paraguay. Seeing that the majority of EU-Mercosur trade is accounted for by Brazil, the 37 percent increase in Brazilian exports implies a large increase in trade between the two trading blocs.

## Social effects in the scenario compared to the baseline situation

We now turn to the social effects in terms of wages and return on investment. We decompose the real income effects with respect to the three production factors unskilled labour, skilled labour and capital. Table A.13 contains summarizing data on changes in wages for skilled and unskilled labour and changes in real return to investment.

**Table A.13: Decomposed Income Effects (percentage change)**

|                               | Argentina | Brazil | Uruguay | Paraguay | EU15 | EU10 |
|-------------------------------|-----------|--------|---------|----------|------|------|
| Unskilled Real Wage Effects % | 0.3%      | 0.9%   | 5.5%    | 1.4%     | 0.2% | 0.1% |
| Skilled Real Wage Effect %    | 0.0%      | 0.7%   | 3.2%    | 0.7%     | 0.3% | 0.2% |
| Real return to Investment %   | 0.1%      | 1.8%   | 8.0%    | 1.4%     | 0.1% | 0.2% |

*Source: Model estimations*

### *Wage Effects*

Trade liberalization is shown to have positive effects on wages for both skilled and unskilled labour in both the EU and Mercosur. The wage increase for unskilled labour will be relatively higher in the Mercosur countries, while skilled European workers are expected to enjoy the larger wage increase<sup>128</sup>.

### *Real Return to Investment*

The real return to investments is also expected to increase across both Mercosur and Europe as a result of a potential FTA. Overall, the increase in return to capital will be higher for the Mercosur countries, most notably so for Uruguay (8.0%) but also for Brazil and Paraguay. The increase in return to investments is expected to be smaller for Argentina, Venezuela and the European countries.

## Energy and environmental effects in the scenario compared to baseline situation

The total consumption of coal and oil declines in the scenario while the consumption of gas increases. All in all the demand for the energy goods falls. Brazil is the country that reduces the energy demand most. The total decrease in Brazil is 5.2 Mtoe where the main part comes from reduction in oil demand. EU15 is the region with the largest increase in energy demand measured in absolute terms. In relative terms Venezuela increases the demand most. For both regions it is the demand for gas that increases most.

<sup>128</sup> Employment is – by definition – kept constant in the scenario. Therefore, the shown wage shift is the resulting change in wages that exactly clears the labour markets. If we made different assumptions about the functioning of the labour markets some of this wage increase will be transformed into higher employment, and smaller increases in wages.

**Table A.14: Energy consumption for firms and households (Mtoe)**

|                  | Coal      |          | Oil       |          | Gas       |          | Total Energy |          |
|------------------|-----------|----------|-----------|----------|-----------|----------|--------------|----------|
|                  | Benchmark | Scenario | Benchmark | Scenario | Benchmark | Scenario | Benchmark    | Scenario |
| <b>Argentina</b> | 0.7       | 0.7      | 25.9      | 25.9     | 17.4      | 17.3     | 44,0         | 43.9     |
| <b>Brazil</b>    | 12.3      | 11.6     | 81.8      | 77.6     | 7.1       | 6.8      | 101.2        | 96.0     |
| <b>Paraguay</b>  | 0,0       | 0,0      | 0.1       | 0.1      | 0,0       | 0,0      | 0.1          | 0.1      |
| <b>Venezuela</b> | 0,0       | 0.1      | 54.6      | 55.8     | 27.6      | 28.1     | 82.2         | 84,0     |
| <b>EU15</b>      | 215.0     | 215.1    | 569.4     | 571.8    | 230.9     | 230.9    | 1015.3       | 1017.8   |
| <b>EU10</b>      | 92.3      | 92.4     | 43.2      | 43.3     | 34.6      | 34.6     | 170.1        | 170.3    |
| <b>Sum</b>       | 320.3     | 319.8    | 776.8     | 774.5    | 317.6     | 317.7    | 1414.6       | 1412.2   |

*Source: Model simulations*

The decrease in demand for energy and the shift towards gas and away from oil results in a decrease of CO<sub>2</sub> emissions from EU-Mercosur production. The largest reduction comes from oil while emission from gas increases.

### Overview of key indicators

Our free trade scenario is welfare improving for both trading blocs in terms of increasing real income. All countries in Mercosur as well as the two parts of Europe we analyze (EU15 and EU10). Aggregate output in all parts of the two trading blocs is also expected to increase as a result of free trade.

A free trade scenario as analyzed here will entail large scale and long term adjustments to the two economies. Brazil, Paraguay and Uruguay can foresee an economic gain from a major restructuring of their economies, with a decrease in output shares for some sectors and a increase in output from the processed food sector.

From a social point of view these sectoral changes will imply adjustment costs which have not been quantified in our economic study. From a labour market point of view the overall change is positive in all economies since both skilled and unskilled wages are expected to increase, or may – depending on the functioning of the labour market – attract labour to shift from the informal to the formal sector and thereby increase the labour supply. Furthermore there is generally a positive social profile of the wage shift in the direction of more convergence between skilled and unskilled wages. Unskilled wages increase generally more than for skilled labour in Mercosur. In the EU the reverse is true and skilled wages increase more than unskilled.

In terms of energy consumption we assess that a free trade agreement could lead to less energy consumption in production because the energy intensive parts of the manufacturing sector are shifted towards Europe, where firms generally are more energy efficient than the Mercosur counterparts. The lower energy consumption and substitution towards more gas leads to a small downturn in total carbon emissions from production in Mercosur and EU together. A drop in emissions in Mercosur is counteracted by an

increase in emissions in the EU, but the net-result is expected to be a small reduction in carbon emissions. Carbon emissions elsewhere in the world are assumed unaffected.

### Effects on the rest of the world

The rest of the world is also affected by a potential free trade agreement between the EU and Mercosur. Total world welfare in terms of real income is increased by a bilateral free trade agreement between the EU and Mercosur. The gains to the two parties (EU and Mercosur) outweigh the loss to the rest of the world. The other South American countries (both the Mercosur associates and the rest of South America) are facing a relative decline of real income of -0.1 percent. While the negative real income impact on the rest of the world is large in absolute values, the change is insignificant in relative terms (less than 0.1 percent) (Table A.15).

**Table A.15: Welfare Effects, millions of dollars**

|                        | <b>Goods liberalization<br/>(tariff cuts and other<br/>AVTs)</b> | <b>Liberalisation of<br/>cross border<br/>trade in services</b> | <b>Total effect<br/>(including 1 pct. trade<br/>facilitation)</b> |
|------------------------|--|---|---|
| Argentina              | 411  | 138   | 1.255   |
| Brazil                 | 4.510  | 465   | 6.883   |
| Paraguay               | 502  | 12  | 643   |
| Uruguay                | 272  | 21  | 369   |
| MERCOSUR<br>associates | -165   | -12   | -173  |
| Other South<br>America | -65  | -7  | -67   |
| EU15                   | 1.306  | 558   | 3.700   |
| EU10                   | 39   | 18  | 201   |
| ROW                    | -2.594   | -199  | -2.982  |

*Source: Model results*

## **ANNEX 2: SOCIAL AND ENVIRONMENTAL INDICATORS FOR MERCOSUR**

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### Social Indicators

Argentina and Uruguay are classified as upper middle income countries in the World Bank classification, and Brazil and Paraguay as lower middle income. Paraguay is the only Mercosur member with a significant inflow of development aid.

Unemployment in Argentina and Uruguay, is around 20% of the labour force. In both countries, rural unemployment is significantly higher than in urban areas. In Brazil and Paraguay overall unemployment levels are lower (recorded as less than 10%), and are higher in urban than rural areas. Formal unemployment statistics are likely to understate the level of underemployment and unrecorded unemployment.

The proportion of the population living at less than US\$ 1 per day is 16.4% in Paraguay, 8.2% in Brazil, 3.3% in Argentina and less than 2% in Uruguay. The proportion of the population with incomes below \$US 2 per day are 33.2% in Paraguay, 22.4% in Brazil, 14.3% in Argentina and 3.9% in Uruguay.

The countries' rankings in the broader measure of the Human Development Index follow the same order as GDP per capita, with Argentina at 0.863, Uruguay at 0.840, Brazil at 0.792 and Paraguay at 0.755. Poverty levels vary significantly between regions, particularly between the more prosperous cities and remote rural areas. In Paraguay a skewed distribution of land ownership, with the overwhelming majority of peasants without formal land titles, contributes to a high level of rural poverty.

Life expectancy at birth is the highest in Uruguay, at 75.4 years, followed by Argentina at 74.5 years. Brazil (70.5%) has the lowest life expectancy, with Paraguay slightly higher at 71.0%. Life expectancy in Brazil has improved significantly in recent years, from 68.3 years in 2001.

Brazil has a lower adult literacy rate, at 88.4% compared with 91.6%. The two richer countries have significantly higher literacy rates, at 97.2% in Argentina and 97.7% in Uruguay. Brazil has however made strong progress, with a combined enrolment ratio the second highest in the region at 91%, after Argentina at 95%. Uruguay has a combined enrolment ratio of 88%, with Paraguay lagging far behind at 73%. Secondary education in Paraguay is particularly weak, at 51% of children.

Income inequality is the lowest for the four countries in Uruguay, with a Gini index at 44.8.. The figure has shown only slight variation between the pre and post-crisis periods. In Brazil income inequality is among the highest in the world, improving somewhat between 1994 and 2003 to a figure of 56.9, then falling sharply back in 2004 to the 1994 level of 61.5. Inequality in Paraguay is similar, at 57.9, with Argentina rather lower at 52.7. The figure in Argentina has been rising steadily since 1996, when its Gini index was 48.5.

Although per capita income in Argentina rose in the early 1990s, the distribution of income worsened and the income of the poorest 20% declined. Since 1995, average income for nearly all groups fell, except for the highest 20%. Similarly in Paraguay,



income inequality rose significantly between 1990 and 1995 and has stayed relatively high. With rising unemployment in both countries, many of the poor have resorted to work in the informal sector, with limited social protection. Poverty in Brazil is similarly linked with large disparities in income, both between regions and in the social exclusion of some groups.

As well as income inequalities, the rural poor often have limited access to social services, and lack the power to exercise rights to land or employment. Indigenous peoples and other ethnic minorities are particularly affected, with a close connection to environmental issues, for example in the Amazonian forest.

As measured by the Gender-related Development Index, Argentina has the highest levels of gender equity at 0.854, followed by Uruguay at 0.836. Paraguay has the lowest level of gender equity, at 0.742, with Brazil at 0.786.

### Environmental Indicators

Mercosur has the largest reserves of arable lands and forests in the world. The expansion of agricultural activities combined with logging has led to a rapid deforestation in many areas, especially in Brazil and Paraguay. Other activities such as mining and road construction have also contributed to deforestation.

Biological diversity is also high in coastal zones, where it is threatened by population pressures and commercial activities such as shrimp farming and oil extraction. Fisheries, especially in Argentina, have suffered from over-exploitation of some species. Concerns have also been expressed about the impact on biodiversity of transgenic crops, particularly in Argentina and in Brazil, used both legally and illegally.

The main threat to air quality comes from emissions of pollutants in urban areas, particularly from road transport. Industrial emissions are also significant in some areas. In Brazil and Argentina oil extraction and the chemical industry are significant pollution sources.

The Amazon hydrographic basin and the Rio de la Plata basin (Paraná and Uruguay rivers) are unique sources of water for human consumption and for hydroelectric energy and navigation, presenting both economic opportunities and threats to these very sensitive marshland eco-systems. To date, few measures have been taken in the Mercosur area to avoid water pollution caused by domestic and industrial waste products. The drainage and recycling of waste waters is still in its infancy.

The agriculture sector has grown rapidly since the 1990s, with potential for pollution from fertilisers and pesticides. Other concerns arise from pollution from mining and the chemical industry. Water is abundant in most parts of the region, and water quantity is not a major issue in most areas.

Some environmental qualities are improving while others are deteriorating, through effects such as depletion of water resources, land conversion, coastal development, climate change, urbanisation and increasing consumption, pollution and waste generation. Many of the environmental trends are associated with social and economic ones, including industrialisation and economic growth.