

The European Union's Sustainability Impact Assessment (SIA) Study of the Euro-Mediterranean Free Trade Area (EMFTA)

Sustainability Impacts of the Euro-Mediterranean Free Trade Area

Final Report on Phase 2 of the SIA-EMFTA Project

March 2006 (Revision)



This project is funded by
the European Union



A Project implemented by the
SIA-EMFTA Consortium

This Report has been prepared for the European Commission under
Contract No: EuropeAid/114340/C/SV/CME

Principal authors:

Colin Kirkpatrick, Clive George, Balsam Ahmad, Sergio Alessandrini, Carol Chouchani Cherfane,
Raymond Colley, Rachid Nafti, Lydia Richardson, Dirk Willem te Velde



SIA-EMFTA Consortium

Institute for Development Policy and Management, University of Manchester (IDPM)
Bocconi University
The International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM)
Centre International des Technologies de l'Environnement de Tunis (CITET)
Deloitte & Touche, Sustainable Emerging Markets
Overseas Development Institute (ODI)
United Nations Economic and Social Commission for Western Asia (ESCWA)

Project website: <http://www.sia-trade.org/emfta>

Project email address: sia-emfta@man.ac.uk

This report was prepared by:

**Impact Assessment Research Centre
Institute for Development Policy and Management
University of Manchester**



in partnership with:



Contents

Abbreviations	2
Executive Summary	3
1. Introduction	9
2. Methods of assessment	10
3. Impacts of liberalising trade in industrial products	15
3.1. Economic impacts	15
3.2. Social impacts	24
3.4. Process impacts	29
3.5. Summary of sustainability impacts for industrial products	31
4. Impacts of liberalising agricultural trade	33
4.1. Economic impacts	33
4.2. Social impacts	37
4.3. Environmental impacts	39
4.4. Process impacts	41
4.5. Summary of sustainability impacts for agriculture	42
5. Impacts of liberalising trade in services	44
5.1. Economic impacts	44
5.2. Social impacts	52
5.3. Environmental impacts	54
5.4. Process impacts	55
5.5. Summary of sustainability impacts for services	55
6. Impacts of south-south trade liberalisation	58
6.1. Economic impacts	58
6.2. Social impacts	64
6.3. Environmental impacts	65
6.4. Process impacts	66
6.5. Summary of sustainability impacts for south-south liberalisation	67
7. Impacts on MSSD indicators and Millennium Development Goals	69
8. Opportunities for mitigation and enhancement	73
8.1. Impacts in the European Union	73
8.2. Impacts in Mediterranean Partner Countries	73
9. Recommendations for institutional strengthening and capacity building	77
10. Priority issues and economic sectors for Phase 3 studies	78
References	81
Annex 1. Contributions from consultation	87
Annex 2. Economic models of the Euro-Mediterranean Free Trade Area	92
Annex 3. Areas proposed for detailed study in Phase 3 of the SIA project	103

Abbreviations

CAP	Common Agricultural Policy
CCA	Causal chain analysis
CGE	Computable General Equilibrium
EC	European Commission
EMFTA	Euro-Mediterranean Free Trade Area
EMP	Euro-Mediterranean Partnership
EU	European Union
FDI	foreign direct investment
GAFTA	Greater Arab Free Trade Area
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
IAIA	International Association for Impact Assessment
M&E	mitigation and enhancement
MDG	Millennium Development Goals
MPC	Mediterranean Partner Countries
MCSD	Mediterranean Commission for Sustainable Development
MSSD	Mediterranean Strategy for Sustainable Development
NAFTA	North American Free Trade Agreement
NGO	Non-Governmental Organisation
RO	rules of origin
SIA	Sustainability Impact Assessment
SME	Small and medium-sized enterprises
UNEP	United Nations Environment Programme

Executive Summary

This report describes the results of the second phase of a project being undertaken for the European Commission, to assess the economic, social and environmental impacts of the evolving Euro-Mediterranean Free Trade Area (EMFTA). Phase One of the project developed the methodology to be used. This report presents the results of Phase Two, in which a broad overview sustainability impact assessment (SIA) has been carried out for the region as a whole. The results are intended to provide information for the negotiations and for the development of parallel policy measures, and to identify priorities for more detailed studies in the third and final phase of the project. The principal findings of the overview impact assessment are presented in this Executive Summary, together with recommendations for negotiators and policy-makers in the EU and Mediterranean Partner Countries (MPCs).

The SIA analyses the impacts of four components of a postulated EMFTA scenario, in comparison with a without EMFTA baseline scenario. These four components cover removal of tariff and non-tariff barriers for industrial products, agriculture, services and south-south trade liberalisation. Liberalisation of industrial products is as defined in the current Association Agreements between the EU and MPCs. For the other three components, the postulated scenario includes all the major issues covered by the ongoing negotiations. For industrial products, some of the impacts will already have occurred in those MPCs that have begun tariff reductions, and this is taken into account in the assessment.

For all four components of the EMFTA scenario, significant impacts will be specific to the conditions in individual countries, and will vary in particular according to the level of existing tariff and non-tariff barriers, and the proportion of EU trade in a country's total international trade. Impacts are also time dependent, with variations in both magnitude and direction between the short term, medium term and long term. These effects are taken into account.

The assessment initially gives worst case indications of potential impacts, assuming that no mitigating actions are taken. It then proceeds to assess potential policy measures to mitigate adverse impacts or enhance beneficial ones.

Principal findings

Impacts in the EU

The economic impacts for the EU are expected to be beneficial overall for all four components of the EMFTA scenario, but fairly small in terms of direct economic efficiency. The results suggest a net gain in consumer welfare of the order of 0.2% of GDP for industrial products, with little difference between the short and long term. For the other three components of the scenario the additional impact on welfare for the EU is close to zero.

Larger economic gains may occur in the longer term for services, and to some extent for industrial products, associated with investment effects. These cannot be forecast with certainty, as they will be strongly dependent on individual investment decisions and other aspects of economic and development policy in both the EU and MPCs.

Significant potential adverse social impacts arise in the EU for agricultural liberalisation. These are mainly restricted to local rural areas of southern European countries, where the types of crops grown are similar to those produced in MPCs. In some areas, the affected workers will include temporary migrants from MPCs, with a knock-on effect on social issues in MPCs. Both positive and negative environmental impacts are expected. Impacts on water resources, agricultural pollution and biodiversity are generally beneficial, while those on the agricultural value and amenity value of rural environments may be adverse.

Impacts in MPCs

In terms of direct effects on consumer welfare, the economic impacts in MPCs are generally positive, although a small short term negative effect is possible in some countries. For industrial products, welfare is expected to rise by an average of about 0.8% of GDP, ranging from slightly less than zero in some countries, up to about 2% of GDP in others. For agriculture and services the additional welfare gain averages about 0.5% for each, with a small additional impact from south-south liberalisation.

Greater increases in welfare may occur in the long term, but these are strongly dependent on domestic reforms and investment decisions. In particular, there are large potential economic benefits from fuller regional integration, but to achieve them, other policy measures are needed in addition to south-south trade liberalisation.

The study identifies some social impacts that are beneficial in the short term as well as the long term, and others that may be significantly adverse unless effective mitigating action is taken. The potential impacts of greatest concern are:

- a significant rise in unemployment, particularly for liberalisation of EU-MPC trade in industrial products and agriculture, and to a lesser extent for services and south-south liberalisation;
- a fall in wage rates associated with increased unemployment;
- a significant loss in government revenues, with consequent social impacts through reduced expenditure on health, education and social support programmes;
- greater vulnerability of poor households to fluctuations in world market prices for basic foods;
- adverse effects on the status, living standards and health of rural women, associated with accelerated conversion from traditional to commercial agriculture.

Similarly, both positive and negative environmental impacts are expected. The main potential adverse impacts that have been identified are:

- significant local impacts on water resources, soil fertility and biodiversity in areas of high existing stress;
- higher environmental stress in cities, resulting from declining rural employment and accelerated rural-urban migration;
- higher air pollution and coastal water pollution from greater international transport;
- higher waste generation from greater use of packaging materials.

Many of these potential impacts would occur primarily in the short or medium term, although this may be as long as ten to fifteen years over the full period of adjustment. Unless effective action is taken in the short term, some impacts may continue into the long term.

Global environmental effects

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

Impacts on the Millennium Development Goals

The SIA has implicitly evaluated the impacts of the postulated EMFTA scenario on the Millennium Development Goals (MDGs), through the core indicators that frame the SIA methodology. It shows that unless effective mitigating action is taken, there will be a small but significant adverse effect on Goals 1 (poverty), 2 (education) and 4 and 5 (health). Both positive and negative effects occur for Goal 7 (environment), while the impact on Goal 8 (global partnership) is positive. The potential adverse impacts arise primarily from a short term rise in unemployment and loss in tariff revenues, occurring mainly for liberalisation of industrial products, but with additional effects from the other components of the EMFTA scenario. Without effective mitigation, some of the short term effects may continue into the long term.

Recommendations for negotiators and policy-makers

The SIA study is not intended to make specific recommendations for the negotiating positions of the EU or MPCs. However, negotiators in all countries are urged to take account of the impacts discussed above, in developing their positions and throughout the ongoing negotiation process. In particular, they should note the potentially adverse effects on Millennium Development Goal 1 (extreme poverty and hunger), and the mixed effects on Millennium Development Goal 7 (environmental sustainability). Negotiators and policy makers are urged to satisfy themselves that measures such as those discussed below are being taken within the negotiations and alongside them, in sufficient degree to counter these potentially adverse effects.

More specific policy measures have been identified for actions which may be taken to mitigate adverse impacts and enhance beneficial ones. As well as trade-related measures that are subject to negotiation, these apply to domestic policy in the EU and MPCs, and to actions which may be taken by the EU in its development assistance programmes within the Barcelona process and in its contributions to international efforts to strengthen global governance.

Trade-related measures

Measures that may be taken within negotiated agreements include both the extent of liberalisation and the timing of implementation.

- For industrial goods, the phasing of liberalisation may be adjusted to take account of the evolving conditions in individual MPCs, particularly in respect of the level of unemployment and the implementation of tax reforms to compensate for lower tariff revenues.
- Similar flexibility in timing may be incorporated into agreements for agriculture, services and south-south liberalisation, and may be linked to the monitoring of actual conditions for key economic, social and environmental indicators.
- For agriculture, special arrangements may be identified for those products for which large production changes are anticipated in either southern EU countries or MPCs. Such arrangements may be optimised by a thorough evaluation of the alternative options. This may for example take the form of collaborative research into the interacting impacts in both the EU and MPCs, including participatory evaluation on both sides of the Mediterranean of the alternative lifestyles of affected groups, and a fuller evaluation of the environmental issues. The options to be considered would include continued protection for sensitive products, the removal of protection combined with programmes to support the multifunctional role of agriculture, phased transition from one to the other, and phased transition to full liberalisation. The timing of negotiations would need to be compatible with the availability of the research findings.
- For services, special arrangements may be identified for those services for which strong regulation and/or government subsidies may be needed in order to avoid potentially adverse impacts. This may for example apply to distribution services (with potentially significant adverse impacts on small traders), environmental services (related to the availability and cost of supply to poor communities) and financial services (related to lenders' sensitivity to local

cyclical pressures and gaps in the credit system). Such arrangements may for example include linking the timing of liberalisation to monitoring the implementation of the necessary regulatory reforms.

- Similar arrangements may be incorporated into south-south agreements.
- In negotiating these and other measures, negotiators are encouraged to note the specific effects discussed in the full SIA report, alongside the arguments presented by their counterparts in other countries.

Domestic policy in the EU

Adverse impacts within the EU occur primarily for agriculture.

- Develop social policy and environmental policy for affected areas of southern EU countries in line with the findings of detailed research on agricultural reform, for example as developed for CAP reforms, extended to cover the specific impacts of EU-MPC liberalisation..

Domestic policy in MPCs

For all four components of the EMFTA scenario, action needs to be taken by MPCs to avoid or minimise significant adverse social and environmental impacts, and to enable the potential benefits to be realised.

- Direct measures to help industrial companies increase their competitiveness against European companies (equivalent to Tunisia's mise à niveau programme). Measures may for example include assistance to both large scale producers and SMEs to access appropriate information and funding for modernisation, schemes to facilitate the development of internal supply chains, and initiatives to strengthen the responsiveness of education and training systems to changing private sector needs.
- Measures to facilitate the transition to commercial agriculture, fully integrated with parallel measures to support the livelihoods of subsistence farmers during the transition period. Facilitation measures such as land reforms, skills training and micro-credit schemes may be combined with initiatives to promote the development of rural industries and accelerate the creation of alternative sources of income in rural areas.
- Cooperative investment in regional transport and other infrastructure.
- The development of integrated regional industrial and agricultural policies, in order to take greater advantage of economies of scale within the region, and achieve greater synergy of development strategies.
- The creation of regional institutions to undertake research into common issues of economic, social and environmental development, and contribute to the development of regional and national policy initiatives, such as developing a common system of rules of origin, and regional approaches to dismantling non-tariff barriers.
- Revised provisions for food subsidies, designed to buffer world price fluctuations.
- Strengthened environmental regulation, particularly in relation to water resources, land use planning and controls, and protection of biological diversity.
- Assistance to large and small companies in environmental management and cleaner production systems.
- Promotion of environmentally sound farming practices.
- Strengthening of environmental standards for marine transport and commercial vehicles.

EU development assistance

The development assistance programmes of the Barcelona process already address many of the issues in varying degrees. In order to counter the incremental effects of the EMFTA, these efforts need to be strengthened in particular areas.

- Promotion of collaborative research among all MPCs into the cost-effectiveness of past measures and potential future ones to enhance the competitiveness of MPC industrial companies.
- Detailed research into the social and environmental impacts of agricultural liberalisation in MPCs and southern EU countries.

- Assistance with schemes providing wider dissemination of information on EU product standards and other market access constraints and opportunities.
- Targeting of continued support for stronger environmental management towards measures that are particularly relevant to EMFTA impacts. This may for example include strengthening institutional capacity for integrated economic, social and environmental planning, and integrated urban-rural and industrial-agricultural planning.
- Assistance with strengthening institutional capacity for the use of environmental economics techniques in development planning.
- Coordination of all EU support within the Barcelona process towards common sustainable development objectives, through, for example, inter-agency screening of programme proposals against the priority actions defined in the Mediterranean Strategy for Sustainable Development (MSSD).
- Support for further development of the MSSD, to take account of continuing research into the economic, social and environmental impacts of greater regional integration.

EU support for stronger global governance

- Reinforce efforts to strengthen multilateral governance mechanisms which effectively address climate change and declining global biological diversity, both of which would otherwise deteriorate incrementally under the EMFTA scenario that has been assessed.

Priorities for further study in Phase 3 of the SIA-EMFTA project

The overview SIA has identified a number of priority areas to be considered for more detailed assessment in Phase 3 of the project. These are:

Industrial

- Textiles, transportation equipment, food and beverages, furniture and paper, chemicals/iron and steel

Agriculture

- Fruits and vegetables, fish and seafood, olive oil, cereals, livestock/dairy produce

Services

- Transport, telecommunications, energy, financial, distribution, construction

South-south liberalisation

- All of the priority areas noted above are important for south-south liberalisation as well as EU-MPC liberalisation. Additionally, consideration should be given to detailed assessment of the potential mitigating and enhancing effects of cooperative regional investment in transport and other infrastructure, and regional cooperation on the development of industrial and agricultural policy.

Following consultation on a preliminary version of the Phase 2 final report, these areas have been refined into the following four priority areas: environment-related aspects (including water resources, environmental services and convergence of standards), agriculture (with particular attention to small scale agriculture and the non-farm rural sector), tax reform, and urban employment/industrial diversification.

Further consultation

The results of the overview SIA will contribute to refining the EU's position in ongoing negotiations, the design of its development assistance programmes and other parallel measures, and the selection of priority areas for more detailed study in Phase 3 of the SIA project. In order to assist with this, comments and suggestions are invited on the questions identified below. The list is not intended to be comprehensive, and observations relating to other aspects of the study are also welcomed.

- Is there any important evidence of which you are aware that has not been taken into account, such that incorrect conclusions may have been drawn?
- Are there any faults in the analysis which may have led to incorrect conclusions?
- Do you have any suggestions for additional mitigation and enhancement measures which have not been discussed?
- Are there any priority areas which should be given particular consideration for more detailed study in Phase 3 of the project, including any which have not been identified in this report?

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

sia-emfta@man.ac.uk

1. Introduction

This report presents the results of a Sustainability Impact Assessment (SIA) of the evolving Euro-Mediterranean Free Trade Area (EMFTA). The potential economic, social and environmental impacts of the existing and potential future trade agreements have been assessed at regional level, with indications of national variations. The purpose of the SIA is to identify opportunities for enhancing sustainability in the further development of trade agreements between the EU and the ten Mediterranean Partner Countries¹ (MPCs), and available EU financial support under the Barcelona Process. The assessment covers both the EU and MPCs, with particular emphasis on potential impacts in partner countries. The report gives recommendations for institutional strengthening and capacity building in MPCs, and identifies priority issues and economic sectors to be considered for more detailed regional or national studies in the third and final phase of the SIA.

The establishment of the EMFTA is one of the central elements of the Euro-Mediterranean Partnership (EMP), formed in the Barcelona Declaration of 1995. The partnership aims to create a common area of peace, stability and shared prosperity between the European Union and the MPCs, through cooperation in three principal areas: political and safety partnership, economic and financial partnership, and social, cultural and humanitarian partnership. The Barcelona Process has also adopted sustainable development as a guiding objective, and has initiated the development of a Mediterranean Strategy for Sustainable Development (MSSD)². At the Euro-Mediterranean Ministerial Meeting held in Stuttgart in 1999, the European Commission made a commitment to undertake a sustainability impact assessment of the EMFTA. The SIA study is being carried out in collaboration with the development of the MSSD.

Phase 1 of the SIA project developed the methodology to be used³, and this broad overview assessment of potential impacts has been undertaken in Phase 2. Two earlier consultation reports have been issued during the Phase 2 work. The first of these described the baseline situation in the MPCs⁴, while the interim report⁵ described the trade liberalisation scenarios whose impacts have been assessed in this final report, in comparison with the baseline. Four components of the EMFTA scenario are assessed, covering four areas of trade liberalisation:

- industrial products
- agriculture
- services
- south-south liberalisation

Taken together, these four components may be regarded as a single overall scenario for the full EMFTA.

1 The ten EU-Med partner countries are Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Territories, Syria, Tunisia, and Turkey.

2 UNEP/MAP (2005).

3 IARC (2004), George and Kirkpatrick (2004)

4 IARC (2005a)

5 IARC (2005b)

2. Methods of assessment

As described in the report on Phase 1 of the SIA-EMFTA project, the main components of the methodology are:

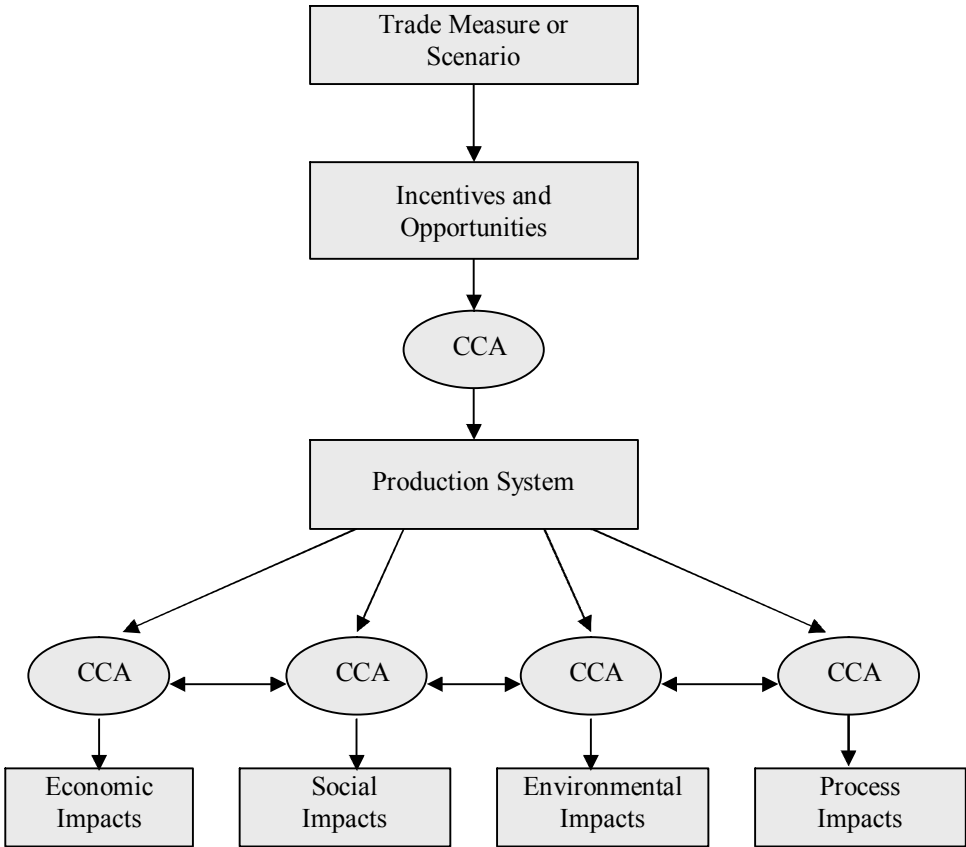
- Screening and scoping – the initial overview impact assessment presented in this report, for use in the selection of key trade measures and economic sectors to be assessed in Phase 3.
- Scenarios – as developed in the first two reports on Phase 2.
- Country groupings – recommendations made in this report for the assessments of Phase 3.
- Assessment of impacts – technical analysis of potential impacts as described below.
- Evaluation of alternative mitigation and enhancement (M&E) measures.
- Monitoring and *ex post* evaluation – proposals to be developed in Phase 3.
- Integration into decision-making processes – described in the Phase 1 report.
- Consultation and stakeholder participation – at each stage of the project.

The fourth of these components, the assessment of impacts, includes:

- consideration of submissions from stakeholders, experts and other interested parties;
- analysis of results of economic modelling studies;
- review of empirical evidence of potential economic, social and environmental impacts;
- causal chain analysis;
- assessment of significance of potential impacts;
- assessment in relation to Millennium Development Goals and MSSD indicators.

The technical analysis is shown schematically in Figure 1.

Figure 1. Analysis of the impact of a trade measure on sustainable development



Causal chain analysis (CCA) is the fundamental assessment method used to assess the potential impacts of the EMFTA. This includes, where appropriate, the causal analysis embedded in economic modelling studies, together with empirical evidence from the literature.

The scenarios that are assessed are summarised in Box 1.

Box 1. Scenarios

Baseline scenario

This provides a 'without EMFTA' scenario, as a comparison against which to assess other scenarios. It is defined as the continuation of foreseeable trends, including traditional trade and foreign direct investment flows, as described in the first report on Phase 2 of the SIA study.

EMFTA scenario

a) industrial products

The scenario is as described in the existing Association Agreements, which define the liberalisation of industrial products in detail.

b) agriculture

The scenario assumes full implementation of the Euro-Mediterranean Roadmap for Agriculture, as recommended for adoption by other Ministers at the Foreign Ministers' meeting held in Luxembourg in May 2005. Potentially sensitive products are not excluded from liberalisation, except for any that may be defined as non-negotiable. All tariff barriers are assumed to be removed, and all non-tariff barriers are assumed to be removed as far as practicable.

c) services

The scenario assumes the fullest practicable extent of liberalisation of all service sectors that are covered by GATS negotiations, including right of establishment and regulatory convergence. The scenario does not include intellectual property rights, government procurement or capital movements. Barriers which are assumed to be removed are those defined in GATS Article XVI. Full liberalisation is assumed for GATS Modes 1, 2 and 3, except for any cross-border trade restrictions that may be required for consumer protection. Commitments for Mode 4 are assumed to cover temporary movement of intra-corporate transferees and contractual service suppliers, for all service sectors.

d) south-south liberalisation

The scenario assumes full liberalisation between MPCs, comprising elimination of tariffs on goods amongst partner countries, and removal of barriers to trade in services amongst partner countries.

For each of the four components of the EMFTA scenario, the technical analysis begins by identifying the effect of the scenario on economic incentives and opportunities, in comparison with the without-EMFTA baseline. This will cause changes in the production system, differently in different countries. These changes in the production system will have economic, social and environmental impacts, which may interact with each other. Some impacts may be only temporary, occurring while the system adjusts to the change in a trade measure, while others will continue into the longer term.

Long term economic, social or environmental impacts may also arise through the impact of the EMFTA on underlying economic, social or environmental processes. Even without the EMFTA, social transformations and economic development are taking place in response to various drivers of change, while biodiversity loss and other environmental degradation may be occurring from a variety of causes. These underlying processes are discussed in the MSSD and in the baseline report for Phase 2 of the SIA. Any effect which the EMFTA may have on accelerating, decelerating or otherwise altering any of these processes may have significant long term cumulative impacts on the economic, social or environmental aspects of sustainable development. The SIA methodology identifies two aggregate indicators for such effects:

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

The key principles of sustainable development are taken to be the principles defined in the Rio Declaration on Environment and Development⁶. Not all of these are relevant to the EMFTA, and Box 2 summarises those which are. For the first of the two process indicators, the assessment examines the consistency of the EMFTA with the principles summarised in Box 2.

Box 2. Sustainable development principles relevant to the EMFTA

Principle 8 - reduce and eliminate unsustainable patterns of production and consumption

Principle 9 - exchange scientific and technological knowledge, and enhance the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies

Principle 11 - enact effective environmental legislation

Principle 12 - promote a supportive and open international economic system

Principle 14 - discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health

Principle 15 - the precautionary approach shall be widely applied

Principle 16 - promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should bear the cost of pollution

Principle 20 – enable the full participation of women in environmental management and development

Principle 22 - recognize and duly support the identity, culture and interests of indigenous people and their communities, and other local communities

Source: The Rio Declaration, United Nations (1992)

For the second of the two process indicators, the assessment examines the effect of the EMFTA on capacity to implement the Mediterranean Strategy for Sustainable Development. The MSSD identifies four objectives and seven priority fields of action, given in Box 3.

Box 3. Objectives and priorities of the MSSD

Objectives

1. contribute to economic development by enhancing Mediterranean assets
2. reduce social disparities by implementing the Millennium Development Goals and strengthen cultural identities
3. change unsustainable production and consumption patterns and ensure the sustainable management of natural resources
4. improve governance at the local, national and regional levels

Priority fields of action

1. better management of water resources and demand
2. improved rational use of energy, increased renewable energy use and mitigation of and adaptation to climate change
3. sustainable mobility through appropriate transport management
4. sustainable tourism as a leading economic sector
5. sustainable agriculture and rural development
6. sustainable urban development
7. sustainable management of the sea, coastal areas and marine resources

Source: UNEP/MAP (2005)

⁶ United Nations (1992)

The SIA analysis evaluates process effects according to the consistency of expected EMFTA outcomes with the Rio principles, and their likely contribution to the MSSD objectives and priority actions.

In assessing the economic, social and environmental impacts, the methodology makes use of internationally recognised impact assessment approaches. In particular, the United Nations Environment Programme (UNEP) has developed guidance on the integrated assessment of trade related policies⁷, and the International Association for Impact Assessment (IAIA) has developed principles for social impact assessment, strategic environmental assessment, biodiversity in impact assessment and the biodiversity impacts of trade⁸.

The four sections of the report which follow cover each of the four components of the overall EMFTA scenario separately. They describe the analysis of economic, social and environmental impacts, followed by an analysis of process impacts under the headings of the impact indicators defined in the SIA methodology. The impacts are summarised at the end of each section, in tables of the form shown in Table 1.

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

Table 1. Format of impact summary tables

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

⁷ UNEP (2001, 2005)

⁸ The IAIA principles series are available from <http://www.iaia.org>

Column 1	This shows the types of likely significant impact that have been identified in the analysis, grouped under the nine core indicators and two process indicators defined in the methodology.
Column 2	Entries in this column may contribute to the prioritisation of more detailed studies in Phase 3.
Column 3	Highlights factors which may need to be considered in more detailed studies.
Column 4	An entry in this column indicates potential for either a mitigating or an enhancing measure, or a combination of the two
Column 5	Significance of short and long term impacts. May be used in prioritisation of issues for more detailed study in Phase 3.

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.

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.

After the assessment of impacts for the four components of the EMFTA scenario, the final sections of the report summarise the impacts on the Millennium Development Goals, the MSSD indicators, and other specific indicators identified during the study. A review is then presented of opportunities for mitigation, enhancement and associated technical assistance, followed by recommendations for the further studies to be carried out in Phase Three of the project.

3. Impacts of liberalising trade in industrial products

3.1. Economic impacts

3.1.1. Method of analysis

The coverage of industrial products in the Association Agreements provides primarily for reduction of tariffs and other barriers in MPCs. The EU already gave duty free access to most MPC industrial products before the EMFTA agreements, and the additional effect of the agreements on market access for industrial products from MPCs is small. Impacts in the EU will arise mainly from increased exports to MPCs. There will be a significant economic benefit to producers, and corresponding social benefits, but these will not be major, since the extra production is a small proportion of total EU exports. There will be potentially adverse environmental impacts associated with the higher production, but these are not expected to be significant, in the light of strong EU environmental regulation. The assessment of the industrial products scenario therefore focuses mainly on impacts in MPCs.

The assessment examines the effects of removing tariffs and key non-tariff aspects such as streamlining border controls. Broadly speaking, these measures reduce the domestic prices of imported goods. This will lead to a shift away from demand for domestic products to demand for imported ones. Because, in our scenario, tariffs will be reduced for imported products from the EU only, and not worldwide, there may also be an import diversion effect towards more imports from the EU, in addition to trade creation effects. The volume of imports will increase, and will compete with domestic producers of import-competing goods, who will have to increase their own competitiveness or shift to other sectors.

Because domestic prices will fall, consumers will gain, as will domestic producers that use imports as intermediates. Overall consumer welfare is therefore likely to rise, with the main effects coming from a reduction in consumer prices. There will also be a fall in domestic production, with adverse effects on employment. If domestic producers respond positively to the stronger competition, the overall long-term economic impact can be expected to be beneficial.

The SIA examines both short-run and long-run effects. In the long-run, domestic producers of import-competing goods who are not able to withstand competition will adjust towards other sectors. The effects will depend on the extent to which the institutional framework supports firms in raising their productivity, or in shifting into other activities. Thus, the timing and pace of liberalisation and policy actions is important for maximising beneficial impacts on sustainable development and minimising adverse ones.

Computable General Equilibrium (CGE) models tend to assume that there will be full pass through of tariff changes to import and domestic prices. However, the MPCs are characterised by market imperfections, such as monopolistic power by importers, price rigidities in domestic markets, and other government interventions. If these rigidities are large and sustained, the effects on consumer welfare could be lower than estimated by CGE models, because of lower changes in domestic prices. At the same time, the effects on domestic production would also be lower than estimated by the models.

A separate effect comes from impacts of tariff reductions on government revenues. This effect is especially important when tariff reduction on EU products is associated with trade diversion, but it also occurs when new trade is created, if the extra revenue is less than that lost on existing trade.

The effect of tariff elimination on imported goods is likely to differ across MPC countries and industries, for several reasons. First, the initial level of tariffs differs across partners. Average tariffs on manufacturing products range from around 20% in Tunisia, Algeria, Morocco, Syria and Egypt, to around 5% in Turkey and Israel. Since industrial tariffs are scheduled to be eliminated in both high

and low tariff countries, we can expect larger impacts and adjustment effects in countries with high initial tariffs. Similarly, larger effects can be expected in those sectors where initial tariffs are high. These include leather, food, drinks, tobacco, clothing (with exceptions in countries such as Jordan and Turkey), automotive products, furniture, and textiles in some countries.

Secondly, the effects may also differ because of different trading structures. The effects will be relatively greater in countries for which trade, and imports in particular, play a larger role in the economy. Countries with a greater trade intensity of exports and imports include Jordan, Tunisia, Israel and Algeria, although in Algeria this is associated mainly with oil. Countries with a lower trade intensity include Morocco, Syria, Turkey, Lebanon and Egypt. It could be expected that tariff changes result in larger effects in countries whose economies are more dependent on imports or exports of affected products.

The effects will also be relatively greater in countries whose trade is more intense with the EU. The share of exports going to the EU is greater than half for Tunisia, Morocco, Algeria, Syria and Turkey, around a third for Egypt and Israel, and less than 10% in Jordan and Lebanon. The share of imports from the EU is more than half for Tunisia, Morocco and Algeria; between 40-50% for Turkey, Lebanon and Israel, and a quarter or less for Egypt, Syria and Jordan.

Reflecting differences in trade structures and tax systems, the fiscal implications will also differ amongst partner countries. Tax revenues as percent of GDP are lower in MPCs than in the EU, but a higher proportion of total tax revenue. Non-tax revenues such as mineral rents in Jordan and Syria contribute significantly to government revenues, but nevertheless, reduction of high tariffs can significantly affect government income. The magnitude of the effect depends on the price elasticity of demand for imports. Import duties on goods imported from the EU as percent of GDP ranges from low in Israel (0.21), to 0.80 in Syria, 1.34 in Egypt, 2.02 in Jordan, 2.21 in Algeria, 2.53 in Morocco, 3.18 in Tunisia and 3.32 in Lebanon⁹. Israel, which has already liberalised its trade regime with the EU for many years, would not face a difficult task compensating for the revenue losses, but countries with a high share of imports from the EU (Tunisia, Algeria and Morocco) or high tariffs generally (Jordan and Egypt) may face a more daunting task. Lebanon is vulnerable, as duties on EU imports account for nearly 30 per cent of import taxes, and its debt to GDP ratio is very high¹⁰. The Palestinian Territories are also dependent on import duties (7.1% of GDP)¹¹.

Finally, consumer tastes, production systems and production technologies will differ amongst countries, so that changes in industrial tariffs will work their way through the economies in different ways.

Most of these causal chain effects are incorporated in economic models, to allow quantitative estimates to be made of impact magnitude.

3.1.2. Modelling results

The assessment has reviewed some 80 economic modelling studies of Mediterranean trade liberalisation, of which 38 model scenarios for industrial goods which are similar to the one adopted for the SIA (elimination of tariffs on industrial imports from the EU). These cover Egypt, Israel, Jordan, Morocco, Syria, Tunisia and Turkey (see Annex 2). Inferences are drawn from these studies, and also from other evidence, for the likely effects in the MPCs which have not been modelled explicitly (Algeria, Lebanon and the Palestinian Territories).

The results of the studies need to be used with caution. The behaviour of a country's economy and of individual firms is rarely understood well enough to be modelled with any great precision, and the data

⁹ Abed (1998)

¹⁰ Martin (2004)

¹¹ Nashashibi (2002)

required are usually scarce. Many simplifying assumptions have to be made, both in the algorithms which describe the causal relationships, and in the data used. It is rarely possible to validate a model and calibrate its use by comparing its predicted results with actual outcomes, since these will usually have been influenced by many other factors than those which were modelled. Domestic policy and regulatory changes which might accompany trade liberalisation may not be allowed for, including those aspects which have a strong influence on how firms will respond. These and other factors result in high levels of uncertainty, both in individual outcomes such as a fall in production in one sector and a rise in another, and in the overall effect on consumer welfare. An indication of the level of uncertainty can be obtained from the differences between the results from different models, but this will not reveal systematic errors, which may be common to them all. Nonetheless, the results do give a broad indication of the possible order of magnitude of the impacts which may result from the postulated scenarios.

3.1.3. Effects on consumer welfare

The modelling studies vary in the details of the scenarios analysed, as well as in the modelling assumptions and data. Differences occur for example in details of tariff reductions, treatment of non-tariff barriers, harmonisation of standards, and how the models deal with loss of tariff revenue, exchange rates, investment decisions, long run productivity gains and technology transfer. The results are not strictly comparable, but the majority indicate that the change in economic welfare is generally positive but small. In the EU, welfare is estimated to rise by about 0.2% of GDP, with little difference between the short and long term. Most of the results for welfare changes in MPCs lie in the range minus 1 to plus 2 percent of GDP. The average change estimated is a rise of about 0.8 percent, which corresponds to about three or four month's economic growth at typical rates. Short term results generally near the middle of the range, moving towards the upper end in the long run.

The 2001 study by Augier and Gasiorek differs from most of the others, both in its results and in the structure of the model. Whereas most of the other studies focus on a single country, the Augier and Gasiorek model comprises 7 partner countries as well as the EU and its new Mediterranean members (modelled separately), and takes account of interactions between the partner countries themselves as well as with the EU. For countries with particularly high initial tariffs, the estimated effect on economic welfare is considerably greater than in the other studies. In the short run, welfare rises by about 6% in Egypt, 13% in Morocco and 18% in Tunisia, with further rises in the long run. It is not clear whether this difference in the results arises from the multi-country structure of the model or other aspects of its design. As with the other studies, only a limited number of economic sectors are modelled. These cover most of the manufactured goods sector, while the rest of the economy is aggregated into a single composite, which is assumed to be perfectly competitive and tradable. The model therefore allows increases in production and exports in agriculture, services and other sectors, in response to rising imports and declining production in industrial goods, in ways which do not attempt to model the actual behaviour of these other sectors. Since agriculture and services (including tourism) are large components of all MPC economies, this adds an extra factor to the uncertainties inherent in all the models.

Several of the studies compare the effects of a free trade agreement with the EU with those of non-discriminatory tariff reduction, and are consistent in finding that broad multilateral liberalisation would have a greater positive effect on economic welfare than the EMFTA.

For all the studies, the differences in welfare effects between countries are broadly as expected. Larger changes in welfare occur in countries such as Tunisia and Morocco, because they have high initial tariffs and trade a large share with the EU. The welfare changes are smaller in countries such as Jordan and Turkey, which are less trade intensive, trade a smaller share with the EU, and have low initial tariffs.

Some of the studies show knock-on effects from industrial product liberalisation on other sectors. Construction services appear to suffer from lower investment, while other sectors such as services and utilities benefit from greater domestic demand.

3.1.4. Effects on government revenues

Many of the studies identify a significant loss in tariff revenues in partner countries. The effects of this on income distribution depend in part on whether the loss of revenue is compensated by taxes on consumption or on capital. One of the studies suggests that if tariffs are replaced by capital taxes, the effect of industrial trade liberalisation on economic welfare may shift from positive to negative, since although wages rise, the returns to capital fall¹². The revenue loss in Lebanon has been estimated at 5% of GDP, 2.4% for Tunisia and 2% for Morocco¹³.

3.1.5. Effects on production output

Most of the studies show that where an increase in economic welfare is projected, this is associated with large increases in imports and short term falls in domestic production. The modelling parameters generally anticipate that the effects of trade liberalisation on productivity will increase a country's competitiveness in the long run, sufficiently to achieve compensating exports without a major adjustment of the exchange rate and an associated decline in real incomes. In some cases this may be assisted by an increase in foreign direct investment. In practice, the expected increase in export competitiveness will depend on the effectiveness of the institutional framework in helping firms to raise their productivity, or to shift into other activities which make use of the available labour at existing wage rates. It should also be noted that the potential economic benefits occur in the long-run, and that short-run employment effects may be major and adverse if the pace of liberalisation exceeds the rate at which the economy can adjust.

The studies indicate that in Israel the production impacts are positive but small in most products, with a larger rise in scientific equipment and other specialist areas. Major short term decreases in domestic production occur for some sectors in all the other MPCs. The products for which adverse effects are greatest include furniture, transportation equipment, food and beverages, and in some cases, textiles. Some studies show a rise in textile production in some countries, arising from cheaper inputs. However, few of them model the parallel effects of the WTO's multilateral elimination of quotas in textile and clothing. Avisse and Fouquin (2001) argue that the ending of the Multi-Fibre Agreement will have a negative impact on the Mediterranean countries, as the main benefits will accrue to China and India. Some of the modelling studies show that, on its own, the EMFTA would lead to positive results for MPC textiles in some countries (particularly Turkey). They do not however reveal the extent to which this gain may be lost to rising competition from low cost Asian exports.

The study by Augier and Gasioriek (2001) gives particularly useful results for the SIA, because its multi-country analysis gives an indication of the potential magnitude of production effects for most of the MPCs, such that valid comparisons can be made. The study also covers several short-run and long-run scenarios related to different aspects of the SIA scenario, again allowing comparison of the effects, with an indication of their evolution over time. The estimates of short-run impacts, before anticipated productivity increases have taken effect, are given in Table 2.

The first of the two columns for each country in Table 2 gives the percentage change in production for the sub-sector, while the second column gives the change as a percentage of total manufacturing in the country. In Tunisia, production of non-electrical machinery shows an eleven-fold rise (associated with cheaper inputs), but this starts from a very low base, so the effect on total manufacturing production is negligible. Production changes in all other sectors are negative in all countries except Israel, and for textiles in Turkey.

¹² Konan and Maskus (1997b)

¹³ Martin (2004), Oxfam International (2003)

Algeria, Lebanon and the Palestinian Territories were not included in the multi-country simulation, and few other modelling studies have been done for these countries. Algeria has relatively high initial tariffs and a high share of imports coming from the EU, which might suggest large effects on both production and welfare. However, the effect on welfare is likely to be smaller, because of the large contribution of oil to the Algerian economy. Production effects in Algeria may be broadly similar to those in Morocco and Tunisia, which also have high initial tariffs and a high share of EU imports. In Lebanon, the relative levels of initial tariffs and trade with the EU suggest that the effects will be broadly similar to those in Jordan. Effects in the Palestinian Territories will be strongly dampened by the dominance of trade with Israel. However, Algeria, Lebanon and the Palestinian Territories would all face relatively high losses in government revenue as a result of a reduction in tariffs on EU imports.

Table 2. Short-run production impacts of removing MPC import tariffs

	Egypt		Israel		Jordan-Syria		Morocco		Tunisia		Turkey	
	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot
Food, beverages, tobacco	-96.9	-24.2	-0.4	-0.05	-37.9	-11.4	-98.5	-34.5	-94.1	-17.9	-34.1	-4.4
Textiles, clothing, leather, footwear	-99.7	-11.0	3.8	0.3	-32.8	-2.3	-73.2	-13.2	-99.7	-25.9	7.8	1.3
Wood, furniture, paper, printing	-95.3	-2.9	-0.04	0.0	-32.4	-3.2	-85.8	-5.2	-94.2	-6.6	-2.5	-0.1
Chemicals, petrol, rubber, plastic	-28.4	-9.9	3.7	0.6	-24.4	-5.6	-20.6	-3.5	-39.4	-10.2	-1.6	-0.4
Pottery, glass etc.	-36.1	-2.9	0.3	0.01	-14.2	-2.3	-9.2	-0.8	-15.7	-1.4	-0.4	-0.03
Iron & steel, other metals	-62.2	-6.2	0.03	0.0	-23.9	-2.2	-32.7	-2.0	-77.6	-3.9	-4.3	-0.5
Non electrical machinery	-90.6	-1.8	0.9	0.03	-16.2	-0.3	-78.3	-0.8	1100	<i>negl.</i>	-5.9	-0.3
Electrical machinery	-85.4	-2.6	1.1	0.3	-40.3	-0.8	-55.4	-1.7	-79.6	-3.2	-2.6	-0.2
Transport equipment	-62.4	-1.3	-0.1	0.0	-32.8	-0.3	-52.1	-1.6	-35.8	-0.7	-9.3	-0.7
Scientific and other equipment	-35.4	0.0	27.2	0.8	-24.9	-0.3	-23.9	0.0	-12.4	-0.1	-23.8	-0.2
Manufacturing sector total	-69.6		0.8		-29.6		-64.1		-65.0		-6.0	

% sec: percent of production in sector, % tot: percent of total manufacturing production

Source: derived from Augier and Gasiorek (2001) Tables 1 and 6

The study of Morocco by Elbehri and Hertel (2004) examines short-run impacts of removing all tariffs on non-food manufacturing imports, with no productivity changes other than those which result from changing economies of scale. Firm behaviour is modelled in two ways, one with no entry/exit and full employment, and the other with entry/exit permitted. The first gives a welfare loss of 1% compared with the 13% rise estimated by Augier and Gasiorek, and falls in production that are generally smaller than the Augier and Gasiorek estimates. When entry/exit is permitted, the welfare loss is only 0.04%, but the production losses are higher. Production declines in 9 of the 15 industrial sectors examined, with the highest falls in motor vehicle production at 65%, wood products at 34%, and the other manufacturing group at 29%. Production of wearing apparel rises by 15% and light manufacturing by 13%, with small rises in four other sectors. A third simulation in the study examines aggregate labour demand for the whole economy, assuming perfectly elastic supply of unskilled labour at the prevailing real wage rate. Because this simulation does not allow the wage rate to fall, aggregate employment in Morocco declines by 8.4%, and economic welfare decreases by 5%.

As Augier and Gasiorek point out, results such as these are likely to overestimate the effects, even in the short run. The phasing of tariff reductions is such that policy makers will be able to introduce parallel changes, in order to stimulate key structural changes in their economies. These may include

changes in domestic policy and regulation, actions to stimulate foreign direct investment and associated technology transfer, measures to support other increases in domestic productivity, harmonisation of standards to improve access to EU markets, management of exchange rates, and a broader bilateral and multilateral trade liberalisation agenda. The monopolistic behaviour and price rigidities in MPC markets will also tend to dampen the effects analysed in the models. The results do however indicate the possible order of magnitude of the impacts which may arise in the absence of mitigating actions.

The Augier and Gasiorek study gives an indication of the timescale in which these impacts might occur. For Jordan and Syria the decline in production output is fairly steady over a 14 year period. In Egypt, Morocco and Tunisia a significant drop occurs in the first year, followed by continuing decline, with most of the production losses occurring in the first 8 years.

In practice, a combination of mitigating policy measures and the productivity enhancing effects of increased competition should begin to generate production increases during this period. With the full set of policy measures and other influences modelled in the Augier and Gasiorek study, the adverse short-run impacts are reduced to close to zero in most of the MPCs, and in Morocco and Egypt to an overall loss of output of 5% or less, followed by longer term improvements.

The same study models these potential long-run production effects, with the assumption that productivity enhancements and associated export strategies take effect within the 14 year period. The productivity changes are derived from the pro-competitive influence of removing tariff and non-tariff barriers, allowing for variations by country and by industry according to the size of the reductions. The associated export strategy aims to achieve greater access to EU markets, through, for example, the harmonisation of standards and regulations. The results are given in Table 3.

Table 3. Long-run production impacts of removing MPC import tariffs

	Egypt		Israel		Jordan-Syria		Morocco		Tunisia		Turkey	
	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot	% sec	% tot
Food, beverages, tobacco	14.0	3.5	8.8	1.1	11.8	3.5	268.0	93.8	375.8	71.4	-0.7	-0.1
Textiles, clothing, leather, footwear	27.8	3.1	26.7	2.4	-1.0	-0.1	-5.0	-0.9	123.9	32.2	64.3	10.9
Wood, furniture, paper, printing	-92.4	-2.8	-0.1	-0.01	-10.9	-1.1	-51.3	-3.1	-66.3	-4.6	2.4	0.1
Chemicals, petrol, rubber, plastic	5.6	1.9	11.1	1.9	35.1	8.1	23.6	4.0	15.7	4.1	2.0	0.5
Pottery, glass etc.	-8.0	-0.6	0.2	0.01	1.0	0.2	17.9	1.6	14.7	1.3	5.1	0.4
Iron & steel, other metals	-11.9	-1.2	-0.4	-0.05	-2.2	-0.2	3.0	0.2	-71.7	-3.6	1.6	0.2
Non electrical machinery	-88.8	-1.8	0.8	0.02	-0.4	-0.01	-80.8	-0.8	327.2	0.0	-2.8	-0.1
Electrical machinery	-80.8	-2.4	1.7	0.4	-20.0	-0.4	-50.5	-1.5	-73.8	-3.0	3.0	0.2
Transport equipment	-48.6	-1.0	4.2	0.3	16.8	0.2	-39.6	-1.2	-5.2	-0.1	2.8	0.2
Scientific and other equipment	-1.2	0.0	242.8	7.3	-4.0	-0.04	5.2	0.0	30.9	0.3	-12.2	-0.1
Manufacturing sector total	-2.0		3.6		9.8		93.2		116.7		14.5	

% sec: percent of production in sector, % tot: percent of total manufacturing production

Source: derived from Augier and Gasiorek (2001) Tables 1 and 8

In this simulation, Egypt still experiences a small overall decline in manufacturing production, but production rises in all the other countries, with large gains in Morocco and Tunisia. Even here however, large falls in production output occur for some products, while others rise. In all the countries except Israel and Turkey, large production decreases occur in electrical machinery, wood,

furniture, paper and printing. In Tunisia, a significant decline also occurs in metals industries. Appropriate national policies will be needed in order to manage these changes smoothly.

Most of the other modelling studies suggest that the overall production output effects from EMFTA in the MPCs are on balance likely to be fairly neutral in the long-term, with a bias towards small positive effects. These too give widely varying estimates for individual countries, which depend in part on different modelling assumptions. Annex 2 summarises the results for individual countries, with estimates of the welfare changes and indications of the potential influence on production and other factors, such as wage rates and returns to capital.

3.1.6. Impacts experienced to date

The impacts discussed above relate to full implementation of the EMFTA, in comparison with a without EMFTA baseline. For industrial products, some MPCs have already made significant progress in implementing the EMFTA, and so some of these impacts may already have been experienced. This influences the current study in two ways. First, the further impacts in these countries from full implementation of the EMFTA will be less than those described in this section of the SIA, by the amount experienced to date. Second, an analysis of the impacts which have already occurred may be used as a check of the study's assessment of future impacts in other MPCs.

Tunisia is the most advanced of the partner countries in the introduction of a free trade area with the European Union¹⁴. Considerable progress has also been made in Turkey, but this is closely associated with the country's programme of reforms in support of its application for EU membership. This makes it particularly difficult to evaluate the extent to which observed effects can be ascribed specifically to the EMFTA, and so the following discussion focuses on experience in Tunisia.

Tunisia was the first country in the region to sign an association agreement with the EU in 1995, and began dismantling tariffs in 1996, even before the agreement came into force in 1998. Tariffs have been totally dismantled for capital goods since 1996, and for raw materials and intermediate goods since 2000¹⁵. Import duties on consumer goods had been cut by about a half by the end of 2001, and 60% of EU industrial products had duty-free access by 2003¹⁶. By 2004, tariff rates on imports competing with local production had been cut to 44% of their level in 1995, and 55% of the tariff reductions scheduled under the Association Agreement were in place.

Tunisia's development since 1995 has been impressive, for many social and environmental factors as well as economic ones. A World Bank strategic review undertaken in 2004¹⁷ reported that economic growth accelerated to 5.2% between 1997 and 2001, that between 1995 and 2000 poverty was reduced from 8% of the population to 4%, and that in 1999 the country's annual cost of environmental degradation was the lowest in the Middle East and North Africa. Substantial progress had been made in closing gender gaps in education, in reducing fertility rates, and in building strong legal rights and privileges for women. The trends of falling poverty applied to both urban and rural areas, and to all administrative regions. Income distribution improved, with inequality as measured by the Gini coefficient falling from 0.417 in 1995 to 0.409 in 2000.

The World Bank review noted that Tunisia's most pressing challenge in 2004 was to reduce unemployment, which remained high at around 15 percent, and identified increased competition from the trade agreement with the EU as one of several possible contributory factors. The Arab Human Development Report lists unemployment in Tunisia as 7.2% in 1996, rising to 15.6% in 1999¹⁸.

¹⁴ CEC (2004)

¹⁵ World Bank (2004)

¹⁶ CEC (2004)

¹⁷ World Bank (2004)

¹⁸ UNDP (2002)

There is no direct evidence that any of these effects was a direct consequence of the EMFTA, in whole or even in part. However, they may be considered as measures of the effectiveness of the Tunisian National Development Plan, which includes the EMFTA. An indication of the relative importance of the EMFTA may be obtained by reference to the country's previous pattern of development, and to other aspects of its development plan that are related to trade liberalisation.

As noted in the World Bank strategic review, Tunisia has achieved fast and sustained economic growth since the mid 1980s. Growth in the 1997-2001 period was stronger than in 1990-95, but it has outpaced the average for the Middle East and North Africa since 1987, and also the average for all middle-income countries. The growth in 1990-95 favoured poorer groups to a higher degree, with consumption expenditures of the poorest decile growing faster than the average. Tunisia's environmental management policies have also been in place since the mid 1980s, driven largely by the goal of a successful tourism industry. On this basis we may interpret the role of the EMFTA as a contributory factor in the continuation of an already successful development strategy, which has itself evolved in parallel with trade liberalisation.

In January 2000 the Tunisian government took action to tackle rising unemployment with the introduction of the National Employment Fund¹⁹. This includes an internship programme for disadvantaged youths, skills training for those with low educational attainment, advanced training for university graduates in computing and telecommunications, help for potential entrepreneurs to establish small businesses, and the establishment of incubators for new companies. The Fund has also provided financial assistance to 35 public and private training centres. By the end of 2001 unemployment had begun to decline, with an average for 1999-2001 of 14.9%²⁰ compared with the 1999 figure of 15.6%. Meanwhile, the benefits of the country's successful economic performance were steered into poverty reduction and other social issues through the National Solidarity Fund, established in 1993²¹. Its success led to the creation of the United Nations' World Solidarity Fund, modelled on the Tunisian programme.

Tunisia's economic development since the 1980s has centred on a strategy of export diversification into manufacturing industries. In 1980 manufactured products contributed 36% of its exports, rising to 69% in 1990 and 77% in 2001²². In readiness for removing barriers to industrial trade with the EU, a 'program de mise à niveau de l'industrie' was introduced in 1994/95, to help put Tunisia's industrial companies on a level with their European competitors²³. The government feared that without significant action, many firms would not survive the challenge. The mise à niveau programme aimed to upgrade about 2000 private firms in the period up to 2005, by providing financial support for modernising equipment, raising quality standards and actions to strengthen balance sheets. Nine technical centres were established to support the programme. In parallel, a series of reforms were undertaken to raise domestic indirect and direct taxes, strengthen tax administration and collection and to improve the effectiveness of public spending, in response to the anticipated decrease in tariff revenues²⁴.

The figures suggest that the mise à niveau programme was not as successful as might have been hoped in maintaining employment levels. A World Bank analysis of development in the region has expressed doubts about the efficacy of such programmes, and suggests that they should be used only sparingly²⁵. It argues instead that if all countries in the Middle East and North Africa place greater emphasis on investment deregulation, delaying the downsizing of state enterprises, maintaining

¹⁹ UNECA (2004)

²⁰ UNDP (2005)

²¹ UNDP (2000)

²² UNECA (2004)

²³ Lakhoua (1998)

²⁴ UNECA (2004)

²⁵ World Bank (2003)

competitive exchange rates and phasing reforms in with the macroeconomic cycle, the political and economic fear of large job losses should not be a significant reason for deferring trade and other reforms. It quotes as evidence experience in China, India, Indonesia, Mexico and Vietnam, although other commentators argue that reforms in most of these countries were accompanied by measures similar to those adopted in Tunisia²⁶.

In interpreting these considerations in relation to the impacts to date of the EMFTA, it may be concluded that the actual effects observed in Tunisia are compatible with the estimated impacts derived from modelling and other studies. Significant economic growth has been achieved, although this cannot be ascribed entirely to the EMFTA, and may not have been possible without other equally important factors in the Tunisian development strategy. Significant unemployment has occurred, although it is as high or higher in other MPCs, and uncertainties remain over how the problem can best be tackled. In parallel, Tunisia has achieved successes in both social development and environmental management, which are relevant to the assessment in the later sections of the SIA.

3.1.7. Impacts on core economic indicators

The impacts as assessed in the preceding sections are summarised below in terms of the impact on the three core economic indicators of the SIA methodology.

Real income

Real income will be affected primarily by the overall welfare changes, influenced by production changes and their effect on value added, and by changes in tariff revenues. The broad conclusion from the modelling studies is that the direct change in welfare from the EMFTA is generally positive but small. Larger effects may occur in the longer term in both the EU and MPCs associated with technological development, but these are strongly dependent on other factors.

The effect of reduced tariff revenues is significant, and strongest in Algeria, Lebanon and the Palestinian Territories, while less strong in Israel, Syria and Egypt. Compensation through other revenue generating activities would have different economic and social effects depending on the method adopted.

Fixed capital formation

The immediate effect on fixed capital will be negative, as imports replace domestic production and uncompetitive firms close. Investment will be stimulated in those sectors where production rises. The exposure to competition will encourage investment in productivity improvements in some of the sectors where fixed capital initially declined, depending on comparative advantages relative to other countries. This can be expected to compensate for the short term losses. However, since the scenario does not enhance export opportunities, the overall longer term effect is likely to be neutral²⁷. The opportunities for new investment may attract foreign as well as domestic capital, depending on other factors which affect the investment climate, varying from country to country. This may contribute to long term growth, depending the dynamics of both foreign and domestic firms, and their relative influence on growth processes²⁸.

Employment

Employment will decline initially as domestic production is replaced by imports, and rise in those sectors where an increase in production is stimulated. Overall effects will depend on policies affecting

²⁶ Pangestu (2002), UNIDO (2002)

²⁷ Martin (2004)

²⁸ Ozler, Yilmaz and Taymaz (2004)

wage rates, re-training, and the extent to which the exposure to competition generates consistent long run economic growth. Unemployment is likely to remain high throughout the period of adjustment, as employment shifts from uncompetitive sectors to competitive ones.

3.2. Social impacts

3.2.1. Method of analysis

The analysis of social impacts is based largely on the results of the assessment of economic impacts, together with further causal chain analysis and a review of empirical evidence from the literature.

3.2.2. Unemployment

Once the period of adjustment is over, unemployment can be expected to settle at a level determined by growth rates and various aspects of economic and other policy, with no further direct effect from the removal of industrial trade barriers.

During the adjustment period, employment will rise or fall in different sectors in approximate proportion to the effects on production. The total effect on aggregate employment in each country is estimated from the modelling result for Morocco, adjusted according to the production data in Table 2 and the manufacturing proportion of each country's total workforce²⁹. This gives results for Algeria, Egypt and Tunisia similar to the estimate for Morocco, with a decline in employment of approximately 8% of the total workforce. In Jordan, Lebanon and Syria the decline is approximately 3%, and in Turkey 0.5%, with a small rise in Israel (0.2%). No significant overall impact is likely in the Palestinian Territories, where production effects are expected to be small. All of these may be regarded as worst case estimates of possible short run employment impacts, in the absence of the mitigating factors and policies discussed above.

The worst case impacts on workers in individual sub-sectors would be similar to the impacts on production given in Table 2. The sectors experiencing the biggest short term loss as a proportion of the total workforce are food and beverages in all MPCs except Israel, Turkey and the Palestinian Territories, and textiles and clothing in Tunisia, Morocco and Egypt. Large losses are also expected in motor vehicle production (Morocco and some other countries), chemicals (Egypt, Jordan, Syria and Tunisia), iron and steel (Egypt), and wood products (Tunisia and Morocco). Knock-on employment effects can also be expected for suppliers of goods and services to these industries.

In the heavier industries that are affected (chemicals, iron and steel and motor vehicles) the workforce composition tends to be predominantly male, with a relatively high proportion of older and more highly skilled workers. In food, beverages and textiles, skill levels tend to be lower, with younger workers and a greater proportion of women.

3.2.3. Wage levels

Short run effects on wage rates will depend strongly on domestic policy, as well as on the location of production increases and decreases, workforce mobility and the inter-sectoral transferability of skills. In sectors where production declines, downward pressure on wages can be expected, along with upward pressure where production increases. Since the net effect on employment is negative throughout the transition period, the net effect on wage rates is also expected to be negative. In the long run, the influence of industrial trade liberalisation on wages and salaries can be expected to

²⁹ World Bank (2004)

follow the level of skill in industrial production. This too will depend on domestic policy and other factors which contribute to the transformation of MPC economies. Ozler, Yilmaz and Taymaz argue that rising wage rates in Turkey following trade liberalisation in the 1980s and 1990s may be attributed largely to government wages policy in the public sector, and consequent incentives for the private sector to invest in higher productivity technology, in order to keep labour costs down³⁰. Increased trade can facilitate changes in skill levels, but its own influence is likely to be relatively neutral.

3.2.4. Loss of tax revenues

The direct fiscal impact of the removal of barriers to imports of industrial goods will be to reduce government revenue. If this is not mitigated by levying the same amount of income by other means, adverse impacts on health, education and social support programmes can be expected. Depending on the types of alternative tax that are chosen, residual social impacts may occur if their distributional effects differ from those of the import tax which they replace.

3.2.5. Gender effects

The 1999 United Nations³¹ review of the role of women in development concluded that, in the context of trade liberalisation:

- women have been incorporated into paid employment in greater numbers, but usually under conditions inferior to those for men;
- costs of economic adjustment have been borne disproportionately by women, especially poor women;
- the welfare demands placed on the family and women appear to have increased, because of a reduction in social sector expenditures.

The study by Ozler, Yilmaz and Taymaz (2004)³² of the effects of past trade liberalisation in Turkey is broadly consistent with these more general findings. Net job creation was found to be significantly higher for females than for males at every skill level, occurring largely through de-skilling and increased flexibility, with significantly higher job uncertainty for women. While trade liberalisation has led to increasing feminisation of the workforce, its effects on gender equality have not been clear cut.

The Arab Women's Development Report³³ cites evidence of similar effects elsewhere in the region. Changes in labour laws and regulations associated with trade liberalisation have had adverse implications for women's participation in labour, since much of the increasing competition in the labour market has been resolved at the expense of women. Other research by the United Nations has shown that reforms which draw more women into the labour force can coincide with persistent gender segmentation in labour markets, and that more specific policies are needed to achieve greater gender equality³⁴. The effects of liberalisation can therefore be expected to be relatively neutral overall and to vary between countries, dependent on domestic policy.

³⁰ Ozler, Yilmaz and Taymaz (2004)

³¹ United Nations (1999)

³² Ozler, Yilmaz and Taymaz (2004)

³³ CAWTAR (2001)

³⁴ UNRISD (2005)

3.2.6. Cultural impacts

As discussed in the Arab Human Development Reports³⁵, globalisation in general presents cultural opportunities and challenges for MPCs. Greater access to European manufactured products arising from the EMFTA will accelerate this. In particular, pressures can be expected to increase for consumers to adopt western consumption patterns, diets and consumer habits, to the detriment of traditional ones. Some aspects of this may be beneficial, related to individual choice, and others adverse, related to increasing consumerisation of society. Overall effects will depend strongly on domestic policy measures such as control over advertising standards.

3.2.7. Impacts on core social indicators

The impacts as assessed above are summarised below in terms of impact on the three core social indicators.

Poverty

In the absence of mitigating actions, the short term impact on poverty will be significantly adverse. If appropriate action is taken to counter this, gains in economic efficiency will enable a net beneficial effect on poverty to be achieved once the period of adjustment is over. This gain is small, but much larger benefits may arise from a wider transformation of MPC economies. Industrial trade liberalisation may contribute to this, alongside appropriate domestic policies.

Health and education

The assessment of economic impacts shows a negative effect on government revenues. In the absence of mitigation this is likely to have a significant adverse effect on health and education programmes.

Equity

The gains in economic welfare that are predicted by the economic modelling studies will in general tend to benefit high consumers more than low consumers and producers, with a small short term adverse effect on social equity. Longer term pressure towards increased adoption of western consumer cultures will have both beneficial and adverse social effects. The impact on government revenues and unemployment is likely to have adverse effects on income distribution in the short term, with neutral impacts in the longer term.

Gender impacts are likely to vary between countries according to existing employment patterns and cultural influences, as well as the potential gender effects of inter-sectoral employment changes. Increasing feminisation of the workforce is likely to be an impact in many of the countries, but with uncertain effects on gender equality, dependent on domestic policy.

3.3.1. Method of analysis

The EMFTA may give rise to environmental impacts, due to pressures on the natural environment arising from changes in the patterns of production and consumption identified in the economic analysis. The nature and extent of the impacts in each effected location will be determined by the baseline environmental conditions (including, for the purposes of this analysis, the effectiveness of the regulatory regime) and by the social and policy responses to the pressures. Thus, MPCs whose economic response to trade measures is similar may be faced with different environmental pressures, or may be impacted quite differently by those pressures.

³⁵ UNDP (2005)

3.3.2. Causal effects

Industrial use of raw materials and emission of pollutants contribute significantly to most of the key issues identified in the study of the baseline environment in MPCs. They influence in particular Objective 3 of the MSSD, to change unsustainable production and consumption patterns and ensure the sustainable management of natural resources. Major issues include water usage, discharge of untreated effluents, air pollution and production of hazardous wastes. All of these issues become more acute when industry is inappropriately located, amongst urban and peri-urban settlements for example, as happens around many major MPC cities.

As seen in the economic analysis, the economic effects of EMFTA on industry vary by country and sector. Production decreases are predicted in the short term, which will have significant beneficial environmental impacts if the economic impacts are not mitigated. If these effects are countered by economic mitigation, the initial changes will consist primarily of shifts in allocation of resources from one sector to another. These changes are unlikely to affect the overall environmental impact of industry significantly. None of the sectors involved consumes resources or generates wastes that are particularly complex or novel in the region, and any changes in volume or distribution of inputs or outputs are likely to be insignificant in the context of the wider economy.

Of much greater importance are the potential long term changes in production methods and national regulatory environments. The exposure to competition from EU exporters is likely to result in a shakeout of inefficient domestic suppliers, and increasing pressure on the surviving domestic firms to match international standards in cleaner and more efficient production techniques. This trend will be facilitated by the modernisation of equipment that is likely to result from investment in competitive sectors. The modernised industries can be expected to perform better on all the main environmental criteria, due to more efficient use of natural resources and reduced emissions.

To the extent that industrial trade liberalisation encourages foreign direct investment (FDI), this too can be expected to have beneficial environmental effects. Concerns have been expressed that trade liberalisation might encourage polluting industries to relocate to the region³⁶. However, a wide range of studies of the 'pollution haven' thesis have shown that high technology international corporations typically introduce manufacturing techniques and management systems that are more environmentally friendly than those of their domestic competitors³⁷.

The urban environment can be expected to benefit from consolidation of industrial production, and the inability of small (and dirty) cottage industries to compete with modern production facilities. Furthermore, the consolidation of industry into fewer, larger units and the enhanced industrial ability to control polluting emissions will provide regulators with the opportunity to set and enforce stricter standards.

Reduction of solid waste production, particularly hazardous waste, will also reduce pressure on land for disposal. However, this effect is unlikely to be significant in comparison with the similar pressures of domestic waste disposal and the major causes of land degradation in MPCs, which arise from agricultural pressure and expanding urbanisation.

The effects of the anticipated improvements in production technology are likely to include reduced intensity of energy consumption and water use. Reduced energy consumption in production will partially counter increased consumption in international transport, and hence an expected adverse impact on climate change. The effect on water use will in some locations contribute to reducing the rate of depletion of aquifers, with consequent beneficial effects for water quality, desertification and

³⁶ Adelphi Consult (2003)

³⁷ Grossman (2002), van Liemt (2001), UNEP/IISD (2000)

biodiversity. 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 the resource.

The beneficial environmental effects will be greatest where the production changes are largest (Egypt, Morocco, Tunisia) and the current environmental performance is weakest (Algeria, Egypt, Jordan, Syria). Since the effects arise primarily from profitability incentives caused directly by industrial trade liberalisation, they will not be strongly dependent on domestic policy. They will however be maximised by strong policy responses to the opportunities for better regulation. It should also be noted that if the goal of greater economic growth is achieved, with a large industrial component, the beneficial technology effects expected from trade liberalisation will be accompanied by adverse scale effects. This will add further to the need for stronger environmental regulation.

3.3.3. Impacts on core environmental indicators

The impacts as assessed above are summarised below in terms of impact on the three core environmental indicators.

Biodiversity

Reduced use of water may have localised beneficial impacts on biodiversity, but these are not expected to be significant in relation to more general pressures.

Environmental quality

Significant beneficial impacts on those aspects of air quality, water quality and land degradation that are associated with industrial pollution are expected in the short term in most of the MPCs. The greatest effects are expected in Egypt, and to a lesser extent Morocco and Tunisia. If domestic production falls rapidly the impacts could be large, and smaller but still significant if the economic impacts are effectively mitigated.

Long term beneficial impacts are also expected, as expanding industries adopt more environmentally efficient production techniques. The benefits will be partially dependent on factors such as the willingness of producers to modernise, their access to management and technical expertise on more efficient, cleaner production systems, and regulators' responses to the opportunities presented.

The overall impact on climate change will be adverse, particularly in the long term, arising primarily from increased international transport.

Natural resource stocks

Similar short and long term effects are expected for industrial energy consumption and water usage, with similar variations between countries. The benefits will depend partially on the introduction of energy efficient technologies and water use control techniques such as re-use, separation of waste streams and flow monitoring, and the extent to which regulators take advantage of the opportunities to strengthen regulation.

3.4. Process impacts

3.4.1. Influence on sustainable development processes

The MSSD and the baseline report for Phase 2 of the SIA have both identified key environmental, social and economic trends in the region. 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 population growth, internal and external migration, tourism development, industrialisation and economic growth. Other social and economic changes include education, improvement and extension of health services, technological development and the broad influences of globalisation.

To the extent that the EMFTA counters or reinforces any of these processes of change, this may have significant long term cumulative effects on the sustainability of development.

3.4.2. Impacts on core process indicators

Consistency with sustainable development principles

Table 4 evaluates the effects on sustainable development processes in relation to the first of the two process indicators defined in the methodology.

Table 4. Consistency with sustainable development principles

Sustainable development principles	Impact
Principle 8 (reduce and eliminate unsustainable patterns of production and consumption).	High consistency for production. Encourages greater consumption.
Principle 9 (exchange scientific and technological knowledge, and enhance the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies).	Stimulates demand for technological development. Technology transfer will depend on behaviour of firms.
Principle 11 (enact effective environmental legislation).	Increases need for effective legislation and strengthens incentives.
Principle 12 (promote a supportive and open international economic system).	High consistency.
Principle 14 (discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health).	Neutral.
Principle 15 (the precautionary approach shall be widely applied).	Neutral.
Principle 16 (promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should bear the cost of pollution).	Promotes economic costing. Neutral for the polluter pays principle.
Principle 20 (enable the full participation of women in environmental management and development).	Encourages female participation in the workforce, but with neutral effects on environmental management and development.
Principle 22 (recognize and duly support the identity, culture and interests of indigenous people and their communities, and other local communities).	Neutral.

Institutional capacity for effective sustainable development strategies

Table 5 evaluates the effects on sustainable development processes in relation to the second of the two core process indicators.

Table 5. Institutional capacity for effective sustainable development strategies

Sustainable development strategy	Impact
Objective 1 (contribute to economic development by enhancing Mediterranean assets)	May contribute, depending on firm dynamics.
Objective 2 (reduce social disparities by implementing the Millennium Development Goals and strengthen cultural identities)	See Section on MDGs. Mixed impacts on cultural identities.
Objective 3 (change unsustainable production and consumption patterns and ensure the sustainable management of natural resources)	Beneficial effect on production. Encourages greater consumption.
Objective 4 (improve governance at the local, national and regional levels)	Neutral.
Action 1 (better management of water resources and demand)	Beneficial effect.
Action 2 (improved rational use of energy, increased renewable energy use and mitigation of and adaptation to climate change)	Beneficial effect on energy use. Mixed impacts on climate change.
Action 3 (sustainable mobility through appropriate transport management)	Neutral.
Action 4 (sustainable tourism as a leading economic sector)	Encourages shift into tourism from uncompetitive industrial sectors.
Action 5 (sustainable agriculture and rural development)	Neutral.
Action 6 (sustainable urban development)	Neutral.
Action 7 (sustainable management of the sea, coastal areas and marine resources)	Neutral.

All the effects identified in Tables 4 and 5 are beneficial or neutral, except for the principle of reducing and eliminating unsustainable patterns of consumption and the corresponding strategic objective. Except in this area, the industrial trade liberalisation scenario is consistent with sustainable development principles, making a positive contribution in some cases, and also contributes to strengthening institutional capacities for effective sustainable development strategies.

The scenario is however expected to accelerate the underlying processes which drive increasing consumption and associated wastes, along with consequent environmental effects such as decreasing biodiversity. These processes are broadly associated with economic growth, which itself has social benefits, and which the EMFTA aims to enhance. The MSSD has identified a need for stronger environmental regulation in many areas, to achieve a sustainable balance between economic growth and environmental degradation. The industrial liberalisation scenario of the EMFTA amplifies this need.

3.5. Summary of sustainability impacts for industrial products

The results of the impact assessment for industrial products are summarised in Table 6.

Table 6. Impact summary – industrial products

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
Economic					
<u>Real income</u>					
welfare	EU manufacturers	Increased exports		↑	↑
	Morocco, Tunisia, others less	lower consumer and input prices	pass through of tariff reduction to domestic prices	↑	↑
government revenues	Algeria, Lebanon, Palest., others less	reduction in tariffs	compensation through other revenue generating activities	↓	↓
<u>Fixed capital formation</u>	Algeria, Egypt, Tunisia, Morocco, others less	production changes, firm closures, new investment	investment climate, firm dynamics	↓	-
<u>Employment</u>	Algeria, Egypt, Tunisia, Morocco, others less. Food and beverages, textiles, automotive, others	production changes, labour productivity	wages policy, labour market flexibility, training, long term growth	↓	-
Social					
<u>Poverty</u>					
unemployment	Algeria, Egypt, Tunisia, Morocco, others less. Food and beverages, textiles, automotive, others	production changes, labour productivity	existing unemployment and vulnerability, wages policy, training, workforce mobility, transferability of skills, long term growth	↓	-
wage rates	Algeria, Egypt, Tunisia, Morocco, others less. Food and beverages, textiles, automotive, others	production changes, labour productivity	wages policy, workforce mobility, transferability of skills, long term growth	↓	-
social support	Algeria, Lebanon, Palest., others less	government revenue decrease	compensation through other revenue generating activities	↓	↓
<u>Health and education</u>	Algeria, Lebanon, Palest., others less	government revenue decrease	compensation through other revenue generating activities	↓	↓
<u>Equity</u>					
income distribution	Algeria, Lebanon, Palest., others less	consumer gains, government revenue decrease	compensation through other revenue generating activities	↓	-
culture	all	access to European products	advertising standards	↑↓	↑↓
gender equity	varied	changes employment levels by number of women, skill level, geographic location	employment patterns, cultural influences	↑↓	↑↓
Environmental					
<u>Biodiversity</u>	localised	non-significant benefit from reduced water use	water stress, intensity of industrial use	-	
<u>Environmental quality</u> air, water, land	Egypt and to a lesser extent Morocco and Tunisia.	efficiency improvements in industry, consolidation, increased investment	producers' willingness modernise, access to expertise, regulators' response	↑	↑
climate change	all	international transport	transport modes	↓	↓

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Natural resources</u> water, energy	Egypt and to a lesser extent Morocco and Tunisia.	reduced water and energy use by industry	producers' willingness modernise, access to expertise, regulators' response	↑	↑
Process <u>SD principles and strategies</u>	all	efficient technology and economic growth	environmental regulation	-	↑↓

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.

4. Impacts of liberalising agricultural trade

4.1. Economic impacts

4.1.1. Method of analysis

The causal chain analysis employed in assessing the agriculture scenario is similar to that used for industrial products. Similar factors drive the extent and variability of impacts, except that in addition to MPCs reducing tariffs on imports from the EU, the EU reduces tariffs on agricultural imports from MPCs. This may result in significant sustainability impacts in the EU as well as in MPCs.

The bigger the share of agriculture in GDP and the higher the level and share of exports to the EU, the larger the expected impact of agricultural trade liberalisation between the EU and MPCs. The importance of agriculture as a proportion of GDP varies from low (Israel, less than 5%) to medium (Jordan and Lebanon, around 10 per cent) to high (Morocco, Egypt and Syria, where it accounts for up to 25% of GDP).

The main destination of agricultural exports from MPCs is the EU (around 40%), so there are potentially large effects from EU liberalisation. This is particularly true for products whose share of exports to the EU is higher than half: vegetables and fruits, fish, cork, wood, vegetable oils, beverages, and hides and skins.

Similarly, around a third of MPC agricultural imports originate in the EU, so there are potentially large effects from liberalisation of tariffs on EU imports into partner countries. Dairy products, sugar products and beverages are imported mainly from the EU, with significant imports of grains.

Tariff rates vary by partner country, and tend to be higher than world averages. Syria and Tunisia have the highest levels of applied tariff rates, followed by Morocco. Countries also maintain varying tariff quotas in which tariff rates are lower. Fill rates are generally under 100 percent, averaging 83% in Morocco and 49% in Tunisia, compared to a world average of 61% over the 1995-1999 period³⁸. The fill rate for sugar in both countries is 100%. These variations are taken into account in modelling studies.

4.1.2. Modelling results

There are fewer economic modelling studies for agricultural goods liberalisation than for industrial products, in part because most of the association agreements include few details of agricultural liberalisation. Nevertheless there are several relevant studies, using a variety of scenarios: unilateral trade liberalisation, reciprocal trade liberalisation, either with the EU alone, or worldwide. Some of these use scenarios which coincide broadly with our EMFTA agricultural scenario, mostly for individual countries, and some for several partners.

Chaherli (2002) has reviewed available studies for agricultural liberalisation, and Kuiper (2004) has undertaken a more recent review covering both agriculture and industrial products. The gaps in information identified by Kuiper have been only partly filled by the additional studies reviewed in Annex 2. As with the modelling studies for industrial products, uncertainties are high and the results need to be used with caution. They do however give a broad indication of the possible magnitude of potential effects.

³⁸ Chaherli (2002)

4.1.3. Effects on consumer welfare

Generally, the modelling results indicate that the effect on welfare is positive but small. Many of the studies estimate the impact of agricultural trade liberalisation on top of industrial liberalisation. For the EU, the additional change in welfare is close to zero. For Egypt, Jordan, Syria, Morocco and Tunisia the results give an additional rise in welfare ranging from zero to about 0.5%, both short term and long term. Some of the studies suggest that the effects on welfare of multilateral liberalisation would be bigger than that of the EMFTA, but only slightly, because a significant proportion of MPC trade in agricultural products is with the EU.

Some studies model the effects on urban and rural households separately, showing significant differences. For Tunisia, a welfare increase of 2.7% has been estimated for rural households and a 0.5% decrease for urban³⁹. One of the studies of reduced agricultural border protection for Morocco gives significant aggregate welfare gains to the non-rural sector, but large disadvantages to the rural population⁴⁰.

4.1.4. Effects on government revenues

The effects on tariff revenues vary between countries. In Turkey, tariffs on agricultural imports are significantly higher than on manufactured products, but in the other MPCs they are broadly similar. The value of agricultural imports to all MPCs is however less than that of manufactured products, at about a half the value in Egypt and Algeria, and about a third in Morocco, Jordan, Lebanon and Syria⁴¹. In these countries and the Palestinian Territories, the impact on government revenues will be significant, but less than that of industrial liberalisation in proportion to the lower trade volumes. In Israel, Tunisia and Turkey, the volume of agricultural imports is much smaller, so the effect on tariff revenues is not expected to be significant. In the longer term, government revenues may rise through rising incomes, as has for example been calculated for Tunisia⁴².

4.1.5. Effects on production output and employment

Most of the models tend to conclude that trade liberalisation in agriculture between the EU and partner countries will:

- reduce the production in MPCs of cereals, other field crops, livestock and dairy produce, because of increased competition from EU producers
- raise production of fruits and vegetables in MPCs, and also olive oil in Tunisia and sugar in countries such as Morocco and Egypt, with opposite effects on EU producers
- raise MPC production of agro-food industries because of improved market access to the EU

Muaz et al (2004) have estimated the magnitude of production effects for increased access to EU markets in Egypt, Jordan, Lebanon, the Palestinian Territories and Syria. Lorca et al (2000, 2003) have examined the effects of EU tariff reduction on production in Egypt, Morocco, Turkey and Tunisia.

The study by Muaz et al focuses on horticultural products, where there are opportunities for increasing exports to Europe without competing with European producers. Rather than modelling the effects of tariff reductions, this study estimates the market size for non-competing products that can be produced profitably. The results are subject to a number of assumptions about the acceptability of products to

³⁹ Chemingui and Thabet (2001)

⁴⁰ Lofgren (1999)

⁴¹ dell'Aquila and Kuiper (2003)

⁴² Chaherli and El-Said (2000)

EU markets and the ability of producers to respond, but give an indication of the possible magnitude of potential effects. Results for the main products studied are given in Table 7.

Table 7. Impacts in Egypt, Jordan, Lebanon, the Palestinian Territories and Syria from increased access to EU markets.

	Strawberry	Grapes	Dates	Green beans	Sweet melon
Additional exports (tons)	118,901	550,681	44,430	78,145	151,712
Acreage required (Ha)	4,756	23,943	14,810	7,587	6,596
New job opportunities	1,723	15,800	98,189	2,529	349
Profits gained US\$m	167	227	30	64	10
Value Added US\$m	208	350	53	93	52
Water requirement m cu. m.	76	548	390	38	31

Source: Muaz et al (2004)

For the five crops together, the study estimates that meeting the EU demand results in 119,000 new job opportunities, an economic profit to MPC producers and exporters of US\$ 498 million, and a value added to the economies of the five countries of US\$ 756 million. It should however be noted that under our EMFTA scenario, these effects would be countered by a shift of production out of products for which MPCs open their markets to EU exports (notably cereals, meat and dairy products). As discussed above, the overall conclusion from all the studies is that the net effect on value added and welfare will be small.

The Muaz study does not calculate the distribution of production increases between the five countries, but estimates the level of each country's comparative advantage in each product. The results suggest that Jordan will gain least from EU trade liberalisation in horticultural products. Lebanon does well in strawberries, Palestine in melons, and Syria in strawberries, melons and green beans. Egypt gains most, with comparative advantages in strawberries, grapes, dates, sweet pepper and tomatoes.

The studies of unilateral opening of EU markets by Lorca et al identify competitive effects between EU and MPC suppliers, and consider mitigating policies that may be taken in the EU. The main production effects for MPCs of EU tariff removal are summarised in Table 8.

Table 8. Increase in MPC exports for unilateral EU liberalisation

	Egypt	Morocco	Turkey	Tunisia
Fish			20.2%	
Seafood			12.8%	
Vegetables	28.0%	20.0%		
Fruits	28.0%	53.0%		
Sugar and sugar products	16.0%	14.0%	40.0%	
Wine			20.2%	
Olive oil				80.0%
total %	23.0%	27.0%		
total % GDP	3.3%	0.6%	2.3%	0.4%
Value added % GDP	3.8%	0.6%	4.4%	0.5%
New jobs created	16645	46903	23382	66610

Source: Lorca et al (2003)

While the number of jobs created will be significant locally, it is a small proportion of each country's total workforce, and will be countered by jobs lost to EU imports arising from MPC agricultural liberalisation.

Neither of these studies examines effects in Algeria or Israel. Algeria's climatic suitability for different crops is broadly similar to Morocco and Tunisia, so similar effects can be expected for exports to the EU. Its agricultural tariffs are a little lower, so the effects of increased competition from EU imports will be somewhat less. Israel's import tariffs are similar to neighbouring countries such as Egypt, but its production and marketing capabilities are stronger. In the short term at least, Israel would benefit more than its neighbours from increased access to EU markets.

As identified in both of these studies, the production increases in MPCs will be partly dependent on producers' ability to respond to the new market opportunities in the EU. Incentives to increase productivity and comply with EU standards are likely to be greatest for large scale commercial farms, and less for small farmers. This would tend to counter the expected increase in employment, while increasing the incomes of those employed on larger farms.

In relation to production effects in the EU, Lorca et al argue that trade liberalisation will not cause much increase in consumption of the products studied. Production increases in MPCs would therefore be associated with corresponding decreases in EU countries. However, the employment losses in the EU will be considerably smaller than the gains in MPCs, since EU labour intensity is lower (34 employees per million dollars of agricultural production in Spain, compared with 315 in Turkey, 343 in Egypt, 457 in Morocco and 305 in Tunisia⁴³). Nonetheless, economic and employment effects in the EU are likely to be significant in particular localities, primarily in Spain, Greece, Italy, Portugal and southern France, where the types of crops grown are similar to those produced in MPCs. Cyprus and Malta are not specifically covered by the SIA, but effects there can be expected to be similar. The economic gains in the EU from increased exports of grains, meat and dairy products will occur more in continental Europe, but the positive employment effects will be smaller, because of high EU productivity in these types of produce.

4.1.6. Impacts on core economic indicators

Real income

Effects on economic welfare are expected to be negligible in the EU. Effects in MPCs are estimated to be generally positive but small, between zero and 0.5% of GDP. The effects will be greatest in countries with high initial agricultural tariffs (Tunisia, Turkey, Morocco). Little direct increase is expected in the long term, although liberalisation may assist parallel domestic policies to increase agricultural productivity. The overall effect on the EU economy is not expected to be significant. There will however be significant local effects, both within MPCs and in southern EU countries.

Loss of tariff revenues is expected to be significant in all MPCs except Israel, Tunisia and Turkey, but only between a third and a half of that expected from liberalisation of industrial products.

Fixed capital formation

There may be some short term negative effects on fixed capital, in the case of farms that are unable to switch production easily between different types of agricultural produce. Such effects are not however expected to be significant in relation to overall capital formation. Long term investment in agriculture will depend more on domestic policies than on the effects of the EMFTA.

⁴³ Lorca et al (2002)

Employment

Overall employment effects are expected to be small, but with significant positive and negative short term local effects in MPCs and southern EU countries. New jobs will be created in MPCs in the production of fruit, vegetables, olive oil and some other products, but partly countered by loss of jobs in other products, and incentives to increase productivity. No significant impact is expected in the short term on overall levels of unemployment. Potential longer term impacts are discussed below.

4.2. Social impacts

4.2.1. Unemployment and migration

Short term effects on employment are as described for economic impacts, with local gains and losses during the period of adjustment. In the EU, the gains will be relatively minor, occurring mainly in continental Europe, with the losses occurring in the south. Without appropriate mitigation, local increases in rural unemployment will occur in Spain, Portugal, Italy, Greece and southern France.

All MPCs are expected to experience short term employment gains for producers of fruits and vegetables and some other products, with the largest effects occurring in Tunisia, Egypt and Morocco. Losses occur for producers of sugar, meat and dairy products, particularly in Egypt and Morocco. The overall short term effect is expected to be small but negative, as employment moves between different sectors.

In the longer term, the changes in economic incentives may have significant effects on production patterns. Many of the rural poor depend on traditional food production, for household use or sold locally or for local consumption, with small scale, low productivity, and limited access to distant markets⁴⁴. This traditional activity often coexists with commercial agriculture that is more highly mechanised, using higher intensity inputs, often owned by city based companies, producing internationally marketable crops with relatively small amounts of labour. The increased export opportunities will favour commercial farms rather than small scale farmers. In areas where agriculture is primarily commercial, employment will rise. Elsewhere, there will be increased incentives for commercial farms to expand their land use, reducing that available for traditional farming. Evidence of these effects has been observed in Egypt and Tunisia⁴⁵. The overall result may be a fall in rural employment, with higher poverty levels, and increased migration to the cities in search of alternative livelihoods. If this is not accompanied by successful domestic policies for urban development, urban unemployment will rise, with associated impacts such as more illegal housing. This in turn may have adverse health effects through poor environmental conditions.

The changes will also influence migration to the EU. Employment in the production of fruit, vegetables and other typical Mediterranean products will increase in MPCs, and decrease in Europe. Many agricultural workers in southern Europe are short term migrants from MPCs⁴⁶. The potential for migration of this nature will therefore be reduced, with an adverse effect on rural unemployment in MPCs. However, EU domestic policy towards demand for low wage labour is likely to be the biggest determinant of migration patterns, as was experienced for example with NAFTA⁴⁷.

⁴⁴ UNDP (2003)

⁴⁵ Manariou and Mehyar (2004), Ben Zid (2004)

⁴⁶ Lorca et al (2003)

⁴⁷ Audley et al (2003)

4.2.2. Gender effects

The changes in production patterns may have significant gender impacts. In many MPCs (such as Morocco, Tunisia, Syria and Egypt), a large proportion of rural women work in traditional food production and are unpaid⁴⁸. The commercial farms which are most likely to benefit from the export opportunities tend to employ a smaller proportion of women, as waged labour. Depending on local cultural factors, some export products such as fruit and flowers may employ a larger female workforce, but in conditions that may be less healthy and provide a poorer standard of living than traditional agriculture. Adverse effects of this nature occurred in Mexico after introduction of the North American Free Trade Agreement (NAFTA)⁴⁹, and similar impacts were identified in EU's SIA of the EU-Chile trade agreement⁵⁰.

4.2.3. Wage levels and real incomes

In areas where production rises, wage rates can be expected to rise, partially countered in MPCs by a fall in household incomes resulting from reduced remittances from migrant workers. Where production falls, the pressure on wage rates will be downwards.

In the longer term, large scale producers in MPCs are expected to be better placed to take advantage of export opportunities and increase their productivity, with a beneficial effect on wage rates. Smaller farms and household production incomes would correspondingly decline.

In both the short term and the long term, food prices are expected to fall. It should be noted that removal of export subsidies by the EU is not part of the EMFTA scenario, and would have the opposite effect if conducted in parallel as part of WTO agreements and CAP reforms. In respect of the EMFTA, the beneficial effects on real incomes associated with lower prices will be experienced mainly in urban areas, with little distinction between high income households and low income ones. This will have a beneficial short term effect on urban poverty, which may be countered in the longer term by increased rural-urban migration, if not accompanied by effective urban development.

4.2.4. Food security

Food security is a major issue in government policy in many of the MPCs, with social, cultural and poverty-related implications. It affects rural households in particular, where there is a strong dependence on local production for local consumption. Urban households are also affected, through variations in market prices. By increasing international trade in food products and increasing the incentives for commercial food production, the EMFTA will increase the vulnerability of both rural and urban households to fluctuations in EU and world market prices. Effects will be insignificant for households whose expenditure on basic foods is a small proportion of their incomes, but may be important for poorer households. They will be particularly significant in countries such as Egypt which are already highly dependent on food imports⁵¹.

Food subsidies have been one way of mitigating against such impacts, but some studies show that this is not an effective way of reducing poverty. An analysis of food subsidies in Tunisia⁵² indicates that they can be a meaningful source of welfare for the poor, but there are considerable leakages to the non-poor, and a sizeable economic efficiency loss can result from price distortions. More targeted direct transfer schemes may have more impact in relation to reducing poverty and vulnerability. The

⁴⁸ Handoussa and Reiffers (2002), World Bank (2003a)

⁴⁹ Taylor (2002)

⁵⁰ Planistat (2002)

⁵¹ Chaherli and El-Said (2000)

⁵² Bibi (2001)

EMFTA will make a significant addition to the more general worldwide effect of increasing internationalisation of food supplies, and will increase the pressure on MPC governments to develop appropriate food security policies.

4.2.5. Social and health expenditure

As discussed above for the economic impacts, the effect of agricultural liberalisation on government revenues will be similar to that for industrial liberalisation but smaller. The potential adverse effects on health, education and other social expenditure will be greatest in Egypt, Algeria and the Palestinian Territories, less in Morocco, Jordan, Lebanon and Syria, and insignificant in Israel, Tunisia and Turkey. As for industrial liberalisation, impacts will depend on government policy for raising revenue from other sources, and in the longer term, on success in raising household incomes.

4.2.6. Impacts on core social indicators

Poverty

Unless mitigated by domestic policy, there will be short term local adverse impacts on poverty in rural areas in the southern countries of the EU. The short term effects in MPCs will be mixed, with a net negative effect on employment as production shifts between sectors, and a net beneficial effect from falling consumer prices.

The longer term impacts in MPCs depend strongly on other factors. Commercial agricultural wages are expected to rise through incentives for greater productivity, but with lower agricultural employment and increased rural-urban migration. Unless urban employment with high added value per employee takes up the balance, rural and urban poverty may both rise. In the absence of appropriate mitigating policies, further adverse effects on poverty may occur in some MPCs, through increased vulnerability to food insecurity.

Health and education

Unless mitigated by appropriate domestic policy, a loss of government revenues is likely to have adverse effects on health and education expenditure in MPCs. This will be smaller than the equivalent effect from industrial liberalisation, but may be significant in Egypt, Algeria and the Palestinian Territories.

Equity

High income households will in general benefit from the expected fall in consumer prices, while short term effects on poorer households are more mixed. Potential longer term effects on income distribution depend strongly on domestic policy.

The changes in production patterns may have significant gender impacts, associated with a decline in traditional food production and the extension of commercial farming.

4.3. Environmental impacts

4.3.1. Causal effects

Production increases in continental Europe are not expected to be sufficient to have significant environmental effects, particularly in view of strong environmental regulation. Where production declines in southern Europe, effects will be mixed. If small farms close, this could have an adverse

effect on the amenity value of agriculture, but a beneficial one for biodiversity, pollution and water consumption. In water scarce areas such as in Spain, the effect may be significant, but small compared with other pressures on the resource.

The most important issue associated with agriculture in MPCs with limited water resources is its high demand for fresh water. This has been noted for example in a study of potential impacts of EMFTA in Morocco⁵³. Shortage of water affects human health and welfare in rural areas, and the competition for scarce resources acts as a restraint on sectors of the economy that could otherwise make a far greater contribution to GDP. In addition, intensive or improperly managed crop or livestock production is often associated with deforestation and degradation of marginal land, contamination of land and water with pollutants, and salinisation of soil.

The main effects of EMFTA in MPCs are predicted to be a reduction in production of field crops, livestock and dairy produce, and an increase in production of fruits and vegetables. The impacts on water demand are unclear. Citrus fruits typically require around twice as much water as grain crops, but some vegetables (beans, cabbage, onions) can require up to 50% less. Where water is scarce, it may be that producers will simply put the available resource into alternative crops so that there will be little overall change in water use.

The pressure to convert marginal lands (ie those that are most vulnerable to degradation through erosion and salinisation) to agriculture will rise where production rises, and fall where production falls. The impact on land and soils is therefore likely to be mixed. EU demand for organic products and controlled agri-chemical use may bring small improvements in soil and water quality. Against this however, the greater competitiveness of markets may encourage intensification of production, which requires increased application of agri-chemicals, perhaps leading to increased residues, land degradation and loss of soil fertility.

The practice of grazing livestock on marginal land is a significant contributor to desertification in some MPCs (Egypt, Syria, Jordan, Palestinian Territories, Morocco). There may be some reduction in the pollution of water bodies from animal wastes, and a decrease in livestock production for export markets may assist efforts to slow deforestation and protect biodiversity. However, the accelerated commercialisation of agriculture is expected to increase the pressure on traditional farmers to convert marginal lands. Significant effects of this nature were experienced in Mexico as a consequence of NAFTA, along with increased land contamination from the high intensity inputs of commercial farming⁵⁴.

In general, positive impacts are expected in some areas and negative ones in others, with a small adverse overall effect unless appropriate mitigating action is taken. A potential increase in rural-urban migration will additionally have the indirect effect of increasing pressure on the urban environment leading to poor services (water, sanitation, waste collection), crowding and health impacts. Longer term economic performance and domestic policies will be the main determinants of countries' ability to compensate for these effects.

4.3.2. Impacts on core environmental indicators

Biodiversity

Short terms effects on biodiversity are expected to be mixed, with beneficial impacts where production declines, and adverse pressures where production rises. Effects in both directions will be most significant in areas where water scarcity or land conversion are already causing pressure on

⁵³ Adelphi Consult (2003)

⁵⁴ Audley et al (2003)

biodiversity. In the longer term, the adverse pressures from increasing production will be partially countered by greater resource efficiency from more competitive agricultural techniques.

Environmental quality

Effects on water pollution will also be mixed in the short term. In the longer term, competitive pressures are expected to lead to greater intensity of production, with greater agro-chemical pollution. An increase in rural-urban migration will also lead to longer term adverse effects on urban environments, unless managed by appropriate policies and infrastructural investments.

Effects on climate change will be mixed, with positive and negative effects on forest cover, but a significant adverse effect from increased international transport.

Natural resource stocks

Little overall change is expected in water abstraction or land conversion, with positive and negative effects occurring from production decreases and increases. In the longer term, the pressures will be adverse if the goal of greater economic growth in MPCs is achieved.

4.4. Process impacts

4.4.1. Influence on sustainable development processes

The effects discussed above include two main influences on underlying developmental and environmental processes. First, agricultural liberalisation within the EMFTA will accelerate rural to urban migration in MPCs, with accumulating adverse social and environmental effects if not countered by appropriate urban development. Second, although greater efficiency of resource allocation may relieve some of the pressures on water resources, land conversion and biodiversity in the short term, increased growth in MPCs can be expected to add to the need for stronger environmental management to counter the long term pressures.

4.4.2. Impacts on core process indicators

Consistency with sustainable development principles

Consistency with sustainable development principles will be similar to that shown in Table 4 above for industrial liberalisation. The effects are consistent or neutral for all the principles except Principle 8 (unsustainable patterns of production and consumption), and in the case of agricultural liberalisation, principle 22 (local communities). For both these principles, there will be negative impacts unless appropriate mitigating policies are adopted. As with industrial liberalisation, the effect on production and consumption arises from faster economic growth. The effect on local communities arises in both MPCs and the southern countries of the EU, from accelerated conversion from traditional agricultural methods to more intensive commercial techniques.

Institutional capacity for effective sustainable development strategies

The effects on sustainable development strategies will be similar to those for industry given in Table 5 above. Adverse effects arise for objective 2 (social disparities and cultural identities), objective 3 (unsustainable production, consumption and resource utilisation) and action 2 (climate change). Adverse effects also occur for action 5 (sustainable agriculture and rural development), and if migration to the cities is accelerated without a parallel increase in high wage urban employment there will be potentially negative effects on action 6 (sustainable urban development).

4.5. Summary of sustainability impacts for agriculture

The results of the impact assessment for agriculture are summarised in Table 9.

Table 9. Impact summary – agriculture

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
Economic					
<u>Real income</u> welfare	EU	Small effects from allocative efficiency		-	-
	Countries with high initial tariffs (e.g. Tunisia, Turkey, Morocco)	Lower consumer and input prices; higher incomes	Pass through of tariff reduction to domestic prices	↑	↑
government revenues	Algeria, Lebanon, Palest., others less	Reduction in tariffs	Compensation through other revenue generating activities	↓	↓
<u>Fixed capital formation</u>	Small effects in MPCs	Farm abandonment	Ability to change products	-	-
<u>Employment</u>	Fruits and vegetables (Egypt), citrus (Morocco) and olive oil, and fruit and vegetables (Tunisia)	Production increase	Ability to respond to market opportunities	↑	-
	Livestock (Egypt) and sugar, meat and dairy (Morocco).	Competition from EU		↓	-
	Southern EU countries (fruits, vegetables, olives)	Competition from MPCs	Rural development programmes	↓	-
Social					
<u>Poverty</u>					
consumer prices	MPCs	Increased competition		↑	↑
unemployment	Rural areas of southern EU countries. Egypt, Morocco, Tunisia, others less. Workers in fruits, vegetables, olives	Unemployment through MPC competition Production changes Commercialisation	Rural development programmes Policies encouraging response to market opportunities	↓ ↑↓	- -
	Egypt, Morocco, others less. Sugar, meat, dairy and traditional agriculture. Agriculture, MPCs	Production changes	Support for changes to other products	↓	↓
wage rates		Higher productivity	Skills and technology development, long term growth	-	↑
food security	Egypt and others dependent on food imports.	Increased vulnerability to price fluctuations	Social policy.	↓	↓
<u>Health and education</u>	Egypt, Algeria, Palestine	Lower tax revenues	Compensation through other revenue generating activities	↓	↓
<u>Equity</u>					
income distribution	Egypt, Morocco	Imbalance of consumer gains, government revenue decrease	compensation through other revenue generating activities	↓	-
gender	All MPCs	Decline in traditional farming	Domestic policies	↓	↓
Environmental					
<u>Biodiversity</u>	Positive and negative effects in locations where production falls and rises.	Production changes and pressures on resources	Existing levels of stress. Implementation of programmes to protect sensitive areas and promote sustainable use	↑↓	↑↓

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Environmental quality</u>					
water quality	Positive and negative effects in locations where production falls and rises.	Production changes, greater intensification, greater resource efficiency	Stronger regulation, support for efficiency improvements	↑↓	↑↓
climate change	all	International transport	transport modes	↓	↓
urban environment	all	Loss of rural jobs exacerbates trends for internal migration	Town planning systems and infrastructural investment	↓	↓
<u>Natural resources</u>	all	Positive and negative effects on water abstraction and land conversion. Economic growth.	Existing levels of stress. Water management and land use policies and regulations	↑↓	↓
Process					
<u>SD principles and strategies</u> general	all	Consistent with most principles and strategic objectives		-	↑
production/consumption	MPCs	Accelerated growth	Environmental policies	-	↓
rural and urban development	MPCs	Rural-urban migration	Pace of liberalisation, industrialisation	-	↓
local communities and cultures	all	Decline of traditional agriculture	Rural development programmes	-	↓

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.

5. Impacts of liberalising trade in services

5.1. Economic impacts

5.1.1. Method of analysis

The assessment of economic impacts begins by identifying the barriers to trade in services, and proceeds to assess the economic effects of eliminating them. Barriers to services trade are typically those defined in GATS Article XVI:

- limitations on the number of service suppliers;
- limitations on the value of service transactions or assets;
- limitations on the number of service operations or quantity of output;
- limitations on the number of people employed in a particular service;
- measures which restrict the types of organisation that may supply a service;
- limitations on the participation of foreign capital, in terms of a limit on foreign shareholding or the total value of individual or aggregate foreign investment.

The EMFTA scenario for liberalisation of services⁵⁵ includes the elimination of barriers in GATS mode 1 (cross-border trade), mode 2 (consumption abroad), mode 3 (commercial presence) and mode 4 (movement of people). The liberalisation assumed in the scenario for mode 4 is limited to temporary employment of professional staff. Liberalisation under mode 3 includes the right of establishment for foreign direct investment (FDI) in service delivery. Most of the Association Agreements between the EU and MPCs include general provisions under which the right of establishment might be extended more broadly, but the SIA covers this aspect of liberalisation only for services, as defined in the Terms of Reference for the study.

Removing barriers to services will influence trade and welfare through two effects:

- *Allocative efficiency*: when a regulatory change allows foreign firms with superior technology and lower costs and prices to supply the domestic market.
- *Dynamic efficiency*: when the removal of barriers raises the level of competition and stimulates innovation.

These effects will lower prices for services, and have benefits in the form of lower consumer prices and lower business operation costs, producing further benefits in other sectors of the economy.

Comparing the EMFTA with other free trade areas that include services (such as US-Jordan) it seems that liberalisation under the EMFTA could lead to new access for the EU in particular in banking, insurance, telecommunications, computer and related services, express delivery services, distribution services, environmental services and construction and engineering services. Service sectors in which MPCs may stand to benefit from greater access to EU markets include tourism, construction, transport and electronic services.

The effects will vary by country, depending on the extent to which individual service sectors have already been liberalised. Radwan and Reiffers (2005) argue that certain sectors are more open, e.g. tourism and finance, than other sectors such as education, telecommunications and transport. This concurs with the view of the World Bank (2003), which also regards distribution as part of the latter category. Regulatory reform in telecommunications has been slow in the Mediterranean region, compared to the average of developing countries. While it has increased recently in e.g. Algeria,

⁵⁵ IARC (2005b)

Jordan and Morocco, there is still scope for liberalising telecommunications markets. While the foreign bank presence (foreign assets as percent of total) is increasing, it is still lower in Mediterranean countries (higher in Lebanon, Morocco and Egypt, lower in Tunisia, Jordan and Algeria) than elsewhere, e.g. in Latin America.

5.1.2. Modelling results

The uncertainties associated with economic modelling of services trade are even greater than those discussed above for industrial products. Whereas the principal barriers to trade in goods are generally tariffs, whose magnitudes are fairly well known, barriers to services trade are qualitative in nature, and have to be expressed as quantitative equivalents in order to be modelled. Data on trade volumes are much more limited, both for individual sub-sectors and the services sector as a whole. Little supporting information is available on the assumptions that have to be made in order to model these effects. The OECD Trade Directorate⁵⁶ has reviewed a range of modelling studies of world trade in services, concluding that ‘quantification of services barriers is unlikely ever to be sufficiently accurate to be used directly in the actual conduct of GATS negotiations’, and that the results ‘should be taken only as indicative’. The results do however indicate the possible magnitude of effects.

The worldwide studies reviewed by OECD give welfare gains ranging from 0.05% to 2% of GDP, for reductions in services barriers of between 25% and 50%. The study giving the largest gain is for a 33% reduction in barriers, while the smallest gain is for complete multilateral liberalisation of financial, communications, insurance and business services. The average welfare gain given by these studies is just under 1% of GDP.

For the Mediterranean region Bayar et al (2001) have modelled the additional effects of agricultural and services liberalisation, beyond those of liberalising trade in manufactured products. The short term results are consistent with these more general studies, giving a 0.5% increase in welfare for Morocco, and negligible welfare effect in Turkey, the rest of the Middle East, the rest of North Africa and the EU. In a longer term analysis of investment effects, the impact rises to about 1% in Morocco but remains negligible elsewhere. The estimated impact is however much bigger when the growth effects of technological change are included. For the full liberalisation scenario (manufactures, agriculture and services combined), welfare rises by about 5% in MPCs, although it remains small at about 0.3% for the EU.

The long term impacts of services and other trade liberalisation that may result from positive or negative effects on economic growth rates are potentially very large, in the EU as well as MPCs⁵⁷. They are however particularly difficult to model. The results do no more than give a rough indication of the order of magnitude of possible impacts of this nature, which are heavily dependent on other aspects of economic policy, technology policy, and their interactions with trade policy.

Konan and Maskus (2004) have argued that many of the models used are not adequate for understanding impacts in highly regulated developing economies, such as many of those in the Middle East and North Africa. They have developed an alternative model which gives much higher welfare gains for services liberalisation in Tunisia (5.3%) and Egypt (7.7%)⁵⁸. Other studies have quantified services barriers through statistical analysis or other techniques which drawn comparisons between protected and open economies, using alternative approaches to the treatment of FDI⁵⁹. The price differentials used in the Konan and Maskus model are based on expert interpretation of the nature of government interventions, the level of industry fragmentation, and professional judgements of cost inefficiencies. In the absence of information on the actual mechanisms through which trade barriers distort the market, two alternative approaches are taken. The first assumes that service producers are

⁵⁶ Dihel (2002)

⁵⁷ Mattoo et al (2001), UNIDO (2002)

⁵⁸ Konan and Kim (2003)

⁵⁹ Jomini et al (2002)

using internationally competitive technologies, and that barriers to foreign investment generate pure economic rents for domestic interests. The second assumes that domestic producers do not employ world-class techniques, so that entry by foreign firms introduces cost-saving innovations. Under the first approach, liberalisation would occur primarily through border liberalisation (mode 1), while under the second it would occur mainly through foreign investment (mode 3). When the price differentials included in the model are removed, the first approach gives a welfare gain for Tunisia of 0.3%, and the second a gain of 7.7%. The subsequent analysis assumes that the actual mechanism of market distortion is an equal combination of the two. This gives a welfare gain of 5.3%, most of which comes from the estimated effect on foreign investment. The analysis for Egypt is similar, giving a gain of 7.7%.

An earlier study by Hoekman and Konan (1999) uses similar techniques to estimate the effects of liberalisation in Egypt. The study assumes that all the barriers to services trade are rent-creating, and simulates them with a 15% price markup on all services, plus an additional 30% for transport services and 100% for distribution and telecommunications. The results give a welfare gain for nondiscriminatory liberalisation of services in Egypt of 7.8%. This is in addition to an estimated gain for trade in goods which arises from removing red tape costs and harmonising product standards (giving 13% in total). Without these measures, the model's results for combined industrial and agricultural trade liberalisation give a small welfare loss. When services liberalisation by the EU is included in the analysis, the total welfare gain in Egypt rises to 21%.

Hoekman and Konan point out that no reliable information is available for many of the key parameters that are modelled, and that no comparable cross-country empirical analyses have been undertaken to give reliable estimates of tariff equivalents for the actual trade barriers. In view of the large error margins for any computational work of this nature, they go no further than to observe that the results suggest that the additional impact of services liberalisation may be significant, beyond the small gains or losses arising from tariff elimination for merchandise trade. They conclude that mutual recognition agreements on services trade can give some gains beyond the larger ones available from unilateral liberalisation and domestic reforms, but that these should be pursued multilaterally through the WTO.

Müller-Jentsch (2005) has argued that services trade liberalisation will yield substantial benefits to all MPCs, and that even where multilateral liberalisation is the best option, regional liberalisation may be more viable. He suggests however that regional patterns of economic activity should be determined by market forces and not pre-empted by policymakers through preferential trade agreements.

Despite the high levels of uncertainty inherent in all these studies, it may be concluded that increased openness to international trade in services does offer large potential benefits to all MPCs, which must be judged against other policy measures which may be needed in transforming their economies. Most of the benefits are likely to accrue through domestic reforms, with further potential benefits from multilateral liberalisation under WTO membership. The additional gain which would result from the services scenario for the EMFTA cannot be quantified reliably from the data available, but is likely to be small, and strongly dependent on country-specific aspects of the relationships between particular types of service and other sectors of the economy.

The studies reviewed above estimate static gains in economic efficiency, after a country's economy has adjusted to the removal of the barriers. Additionally, as argued by Müller-Jentsch and others, economic integration through services trade may also be an important driver of long term economic growth in MPCs. This is particularly so for those services which provide a platform for development of other parts of the economy, such financial and telecommunication services. Mattoo et al (2001) have undertaken a cross-country econometric analysis of the relationship between growth rates and trade openness in these two service sectors. They find a strong correlation for financial services, and although the link is less strong for telecommunications, the results suggest that countries with fully open telecommunications and financial services sectors grow up to 1.5% a year faster than other countries. As with the other studies, the results must be used with caution. They give no indication of which effect, if either, is the cause of the other. Nor do they give information on the potential adverse

effects on growth if liberalisation is undertaken inappropriately. These issues are discussed below for individual services sub-sectors.

5.1.3. Effects on government revenues

Services trade liberalisation does not decrease tariff revenues as in the case of goods, so there are few negative effects on government revenues from this. On the other hand a strong and costly regulatory framework is required to reap benefits from liberalisation and also to avoid the pitfalls. As an example, Konan and Van Asche (2004) find that limited foreign market access in Tunisia is welfare improving, if regulation is strong enough to prevent the domestic incumbent and the foreign service provider forming a cartel.

5.1.4. Production effects

The modelling studies discussed above give a broad indication of the production changes that can be expected from services trade liberalisation. Full services liberalisation on its own would increase the services share of GDP, at the expense of other sectors of the economy. The Konan and Maskus study for Tunisia suggests that changes would be smaller than those associated with the liberalisation of trade in goods, and in the opposite direction. When goods and services are both liberalised, the overall movements of employment between manufacturing, agriculture and services are relatively small.

Employment changes within the service sector may be higher, if new technologies brought in by foreign firms yield a major increase in labour productivity in particular sub-sectors. Any such changes are likely to be fairly slow, and so no major adjustment effects are expected.

5.1.5. Impacts in individual sub-sectors

Business services (including professional, computer and electronic services)

In the Konan and Maskus (2004) study the removal of barriers for business services contributes 11% of the total welfare gain estimated for Tunisia from liberalising trade in services.

Professional services tend to be fairly highly regulated, including legal, accountancy, architectural, urban planning, engineering, and scientific and technical consulting. Significant market entry barriers are applied in the form of residency requirements or qualification requirements, either by state regulation or through self-regulating professional bodies, in some cases for consumer protection⁶⁰. In general, professional qualifications obtained in MPCs are less acceptable in the EU than vice versa. The EU is therefore likely to gain economically from employment of professional staff in MPCs, with a corresponding decrease of professional employment in MPCs. The effect is likely to be small however, since MPC professionals can charge lower fees and have greater experience of the local business environment.

Other business services include computer and electronic services, research and development, real estate, management consulting, technical testing and analysis, and services incidental to specific industries. Many of these services are less highly regulated. Services that can be provided electronically provide important opportunities for MPCs to export services to the EU and to each other, such as, for example, through call centres that have been established in North Africa to provide services to France. Further liberalisation by the EU would provide economic gains both in the EU and in those MPCs where European languages are widely spoken.

⁶⁰ WTO (2000)

Communication services

Communications services, particularly telecommunications, play an increasingly important role in enhancing business competitiveness in MPCs, as well as in the EU. Telecommunications are one of four main backbone services identified by Müller-Jentsch (2005) as playing key roles in redirecting MPC economic strategy. As suggested by the Mattoo et al (2001) study on growth rates, improving communications may make a major contribution to MPC economic development. However, the relatively weak statistical correlation noted in that study may reflect adverse effects such as noted in a World Bank review of the sector⁶¹. When India liberalised its local telecommunications market in the mid-1990s, ineffective regulation created conflicts over interconnection and licensing terms, delayed network expansion, and adversely affected private investment. These difficulties have now been overcome, and the sector is growing strongly. Strong growth has also occurred in China, which maintained its state monopoly, but with an ambitious public investment program that led to a more than tenfold expansion of the telecommunications network.

The World Bank (2003) gives examples of how telecommunications liberalisation may have already reduced prices in some MPCs. The threat of competition from awarding a license to a second telecommunications firm in Morocco caused the domestic incumbent to lower tariffs four times in one year. In Jordan, competition between an Egyptian owned and a Jordan owned telecommunications firm led to a reduction in the price of mobile telecommunications. In the Konan and Maskus (2004) study, the communications sector contributes 9% of the estimated welfare increase in Tunisia.

In those MPCs that have not already modernised their telecommunications services, significant gains are available, either through liberalisation or public investment. The studies suggest that if the sector is liberalised, effective regulation is a key factor in achieving the potential benefits. Further efficiency gains may be available from regulatory convergence with the EU. However, as discussed by Müller-Jentsch (2005), careful management would be needed to ensure that the benefits outweigh the potential negotiation, transition and compliance costs of convergence.

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 MPCs, through increased mobility of MPC workers to the EU. However, the EMFTA 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 MPCs. Gains in MPCs would come largely from productivity improvements or reduced rents, as assumed in the Konan and Maskus (2004) study, where construction services contribute 6% of the welfare gain. The sector is however one in which most MPCs already have highly experienced firms using modern techniques, so the gains may not be as large as the model suggests. Relaxed entry requirements may result in a small loss of employment of MPC professionals, but salary differentials would limit this effect.

Distribution services

The EMFTA scenario for services would expand the ability of EU distribution companies to establish outlets in MPCs, 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 MPCs would experience welfare gains from increased economic efficiency. The Konan and Maskus study estimates this effect as 8% of the total welfare gain from services liberalisation.

Most of the increase in efficiency in MPCs is likely to come from reduced employment in the industry. The number of small traders can be expected to decline, with a smaller number of jobs becoming

⁶¹ Hodge (2002)

available in new outlets. The welfare gain will come mainly from lower consumer prices, particularly for higher income urban communities. Beneficial and adverse impacts have been observed in a study of the actual effects of retail services liberalisation in Thailand, where they have been the subject of social unrest and intense political debate⁶². The SIA of the WTO negotiations on distribution services concludes that in many developing countries (but less so in the least developed), 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 chains⁶³. Effective regulation and appropriate phasing of reforms 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 MPC growth rates.

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 the EMFTA. The scenario will provide some additional freedom to offer private sector education, but no major economic impacts are anticipated.

Environmental services

The effects of liberalising environmental services in the EMFTA are expected to be similar to those identified in the SIA for the WTO negotiations⁶⁴. For water and wastewater, the EU would achieve a significant economic benefit from increased overseas investments, with smaller gains for solid waste management. An economic benefit is also expected in MPCs, through increased efficiency due to greater competition. This may be associated with possible social and health impacts, which may be positive or negative, depending on the nature of accompanying regulation and government subsidy programmes.

Other environmental services include air quality protection, remediation services for contaminated land and water, noise abatement, and services to protect biodiversity and landscape⁶⁵. These are not large markets, and the effects are expected to be small.

Energy services

Supply of natural gas and oil is less influenced by trade liberalisation than electricity supply, which is one of the four main backbone services for the region identified by Müller-Jentsch (2005). The sector remains strongly government controlled in many MPCs, where liberalisation through the EMFTA would have little effect unless accompanied by increased private participation in the sector. 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. In Tunisia, which has maintained state control, unit energy costs have been reported as being a factor of two or more below those in some African countries that have privatised their industries⁶⁶. 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.

⁶² WTO (2002a)

⁶³ Arkell and Johnson (2005)

⁶⁴ Bisset et al (2003), Kirkpatrick and Parker (2005)

⁶⁵ WTO (2000b)

⁶⁶ UNECE (2004) ; Kirkpatrick, Parker and Zhang (2005)

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.

Financial services

Financial services are another of the backbone services identified by Müller-Jentsch. They can contribute to economic growth and poverty reduction (Jalilian and Kirkpatrick 2005), and to the growth of a wide range of activities, from the smallest (microfinance) to the largest (merchant banking) and the most innovative (venture capital). Liberalisation of financial services contributes 20% of the welfare gain identified in the Konan and Maskus (2004) study, while the Mattoo et al (2001) study shows a strong correlation with growth rates.

Experience with liberalisation in other countries is mixed, and depends strongly on effective regulation (Brownbridge and Kirkpatrick 2002). The experience of the Asian financial crisis in 1997 demonstrated the dangers of financial liberalisation which is not supported by a strong regulatory framework. The crisis can be ascribed to liberalising prematurely, long-term foreign borrowing, fragmented financial regulation and supervision, unclear division of responsibilities, and a restrictive regime regarding foreign bank entry. In Africa it is argued that restructuring was insufficient to change the behaviour of the financial institutions, that uncontrolled fiscal deficits combined with liberalisation to increase public debt, and that regulatory and supervision mechanisms were inadequate to monitor the working of the system⁶⁷.

The World Bank's report on Finance for Growth⁶⁸ presents a strong case that entry of foreign financial institutions improves the efficiency of the domestic financial sector (through competition and international expertise), strengthens its stability, and increases access to lending for small and medium-sized enterprises (SMEs). The report cites Argentina as a prime example of the positive impact foreign entry has had on the efficiency and competitiveness of local banking systems, and as a case where foreign-owned banks have proved a stabilising force. The report was written in 2001, shortly before the Argentinian economy collapsed. It has been argued that domination of Argentina's domestic banking industry by foreign ownership, and its reluctance to lend to SMEs, played a major role in the collapse⁶⁹. Domestic banks may be more sensitive than international ones to local cyclical pressures for credit management, and more likely to address gaps in the credit system for disadvantaged groups and regions. Strong regulation and a controlled pace of liberalisation are likely to be key factors in mitigating potential adverse impacts.

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 the EMFTA. 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 personnel⁷⁰. Other

⁶⁷ Hodge (2002)

⁶⁸ World Bank (2001)

⁶⁹ Stiglitz (2002)

⁷⁰ World Bank (2002)

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 population⁷¹. A review by UNCTAD⁷² concludes that health services liberalisation has had a beneficial effect in most cases, by exercising downward pressure on health service costs. The report notes however that poorer countries are not well placed to benefit, and that direct action is needed to improve health services for the poor.

Recreational, audio-visual, cultural and sporting services

Although this sub-sector is not excluded from the scenario, it is considered unlikely that it will be liberalised significantly through the EMFTA, since social and political considerations in both the EU and MPCs favour protection. Internationally, countries with strong media industries such as the United States and India stand to benefit economically from liberalisation, while other countries wish to protect their cultural identity. If liberalisation were to occur as part of the EMFTA, it would have economic benefits. Since the EU has the most highly developed industries it would tend to gain from the return on foreign investment, while MPCs would experience efficiency gains.

Tourism and travel-related services

Tourism makes a major contribution to foreign earnings in many MPCs, and already benefits from considerable foreign as well as domestic investment. The growth of the industry is determined mainly by market opportunity and government policy, and the effects of further liberalisation are expected to be small. The principal economic impacts of EU-MPC 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 MPCs from greater competition are not expected to be significant.

Transport services

Transportation services have been identified by Müller-Jentsch as another backbone service, and provide 20% of the increase in welfare estimated for Tunisia by Konan and Maskus. Müller-Jentsch has reviewed many major inefficiencies in transport operations and related services in MPCs, associated with government ownership and lack of competition. These include slow and cumbersome procedures as well as direct costs, which can have serious adverse effects on economic performance in other economic sectors. However, trade liberalisation is unlikely to release very much of the available efficiency gains, since domestic reforms are the main requirement for improving the performance of the sector. Any additional influence through EU-MPC services liberalisation are likely to be small by comparison.

5.1.6. Impacts on core economic indicators

Real income

The combined impact on economic welfare of the services component of the EMFTA scenario cannot be quantified with any certainty. In both the EU and MPCs it is likely to be positive but small, and probably similar in magnitude to the effects of liberalising industrial goods and agriculture. Much greater gains are available in MPCs from domestic reforms, which the EMP and EMFTA might assist. However, such gains cannot be attributed directly to the EMFTA.

⁷¹ Hilary (2002), Kinuthia (2002)

⁷² UNCTAD (1997)

No significant direct impact on government revenues is expected. However, some aspects of services trade liberalisation and associated privatisation programmes require sophisticated regulation in order to achieve the intended benefit and avoid potentially severe adverse impacts. Appropriate regulation would entail significant costs, which MPC governments will have to weigh against the emerging benefits in a carefully phased programme of reforms.

Fixed capital formation

Exposure of MPC service industries to greater competition will encourage investment in them. Since the services scenario includes the right of establishment, much of this investment may come from EU companies. The effects are expected to be significant, but not as large as those associated with domestic reforms.

Employment

No significant adverse impacts on employment are expected in the EU. In MPCs there will 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 in which productivity increases rapidly. In comparison with similar changes associated with privatisation and other domestic reforms, impacts from services liberalisation in the EMFTA are not likely to be more than minor in significance.

5.2. Social impacts

5.2.1. Employment

Long term effects on employment in MPCs are expected to be neutral, with unemployment levels determined primarily by growth rates, economic stability and other influences of domestic policy.

Short term employment losses are expected to be minor overall, with potentially significant effects in those sub-sectors experiencing rapid productivity increases. The biggest losses attributable directly to the EMFTA are likely to occur in small retail outlets, while smaller gains may occur in the provision of electronic services to the EU. Some losses may occur in financial services, business services, transport services, water and wastewater industries, and energy and construction industries. In these sub-sectors however, much bigger effects would arise from domestic reforms designed to increase efficiency and competitiveness.

5.2.2. Wage levels

Most of the anticipated employment changes arise through increases in productivity, which are likely to be associated with a beneficial effect on wage levels. Financial, telecommunication and transportation industries are traditionally relatively high-income, formalised industries. In Jordan, for example, about 80% of financial and telecommunications sector employees earn over 200 Jordanian Dinars each month, compared with 36% across the economy as a whole⁷³. Tourism follows the opposite pattern, with fewer employees in this income category than the national average. However, the direct effect of the EMFTA on tourism is expected to be small.

5.2.3. Gender and age effects

The overall gender impact of the employment changes will depend on the relative degrees of growth in each sub-sector. Data from the most recent labour-force surveys across a number of MPCs are

⁷³ Department of Statistics (2003)

illustrated in Table 10. The data indicate that in financial services, female representation is significantly above the national average in four of the five countries. Women are however under-represented in transport, telecommunications and tourism in all five countries. On balance therefore, the effect of the EMFTA is likely to be fairly neutral.

Table 10. Female employment in service industries

	All employees	Financial	Tourism	Telecommunications & transportation
Egypt	19%	27%	15%	6%
Israel	46%	59%	43%	28%
Morocco	26%	34%	17%	6%
Syria	18%	14%	3%	2%
Turkey	28%	34%	9%	6%

Source: Derived from the ILO LABORSTA database (<http://laborsta.ilo.org/>) and labour force surveys for Egypt (2002), Israel (2003), Morocco (2003), Syria (2002) and Turkey (2003).

The demographic data on age profiles across disaggregated service sectors is slim, but the evidence from Turkey suggests that in Turkey's financial sector the median age in 2003 was 25-29, and that 58% were thirty-four or under. In transport and telecommunications the median age is 30-34 and 44% are thirty-four or under. Across the economy as a whole, the median age is 25-29 and 50% are thirty-four or under⁷⁴. Again therefore, the overall effect is likely to be fairly neutral in both the short and long term.

5.2.4. Social and health effects

No significant effect on the government budget is expected, other than might arise from poorly planned liberalisation and the need for over-costly regulation. Expenditure on health and social services will not therefore be directly affected.

Liberalisation of environmental services may have significant social and health impacts, depending on the nature of associated reforms. Potential efficiency improvements may have significant beneficial effects, but adverse effects can occur for poorer social groups if the reforms are not accompanied by effective regulation and government subsidies.

The downward pressure on costs which liberalisation is likely to generate can be expected to have a small beneficial effect on the quality of health services.

5.2.5. Impacts on core social indicators

Poverty

Long term effects on poverty are expected to be small but positive, arising primarily from better economic performance overall. In the short term, the liberalisation of distribution services may have adverse effects if not appropriately mitigated, through loss of employment in small retail outlets.

Health and education

A small improvement may occur in education, but this is not expected to be significant. A small beneficial impact is expected in health services, through the greater efficiencies stimulated by stronger competition. Impacts from liberalisation of environmental services may be positive or negative, dependent on effective regulation.

⁷⁴ Institute of Statistics (2003)

Equity

The changes in economic welfare that anticipated are likely to be fairly uniformly distributed, with no overall effect on distribution of real incomes. Wage increases are also likely to be distributed fairly uniformly. The main short term losses of employment are expected to occur in small retail outlets, with an adverse effect on social equity if not mitigated.

Gender effects and age effects are expected to be neutral. Cultural effects associated with greater access to European services are expected to be similar to those discussed for manufactured products, with both beneficial and adverse impacts.

5.3. Environmental impacts

5.3.1. Causal effects

Significant environmental effects of the services component in the EMFTA are unlikely to arise directly from increased economic activity in most of the areas affected. Distribution services are the main sub-sector where significant environmental impacts may occur, arising from the transport impacts of goods being sourced from a wider area. This may have local pollution impacts as well as contributing to climate change. The SIA of distribution services for the WTO negotiations⁷⁵ also suggests that changes in packaging techniques may lead to additional non-degradable solid wastes, and the need for stronger regulation to encourage recycling.

The access by EU companies to opportunities in service sectors may increase pressure on host governments to improve environmental regulation and enforcement, both to create a level playing field and to provide a stable climate for further investment. Many EU investors would bring management tools that enhance the environmental performance of businesses and their suppliers. This would promote better control and treatment of polluting emissions, particularly through liberalisation of environmental services, energy services, transport services and health services. The additional effect of liberalisation is however expected to be fairly small, since most of the relevant techniques are widely available and strongly promoted by international agencies.

Transfer of management techniques will also have beneficial effects in those service sectors that rely on natural resources (tourism and leisure), stimulating more effort to retain and improve biological and cultural assets. Again however the effect will be small, since EU companies are already highly active in the region and the economic impacts of liberalisation in this sub-sector are small.

Changes in scale of service provision in the most affected sectors might lead to small increments in vehicle emissions and other pollution impacts, but these would be difficult to detect against the background. Other environmental effects are most likely to arise indirectly, as a result of increased investment, improved efficiency, and increasing access to state-of-the-art management approaches.

5.3.2. Impacts on core environmental indicators

Biodiversity

No significant impacts on biodiversity have been identified, other than those arising from the general pressures of accelerated economic growth.

Environmental quality

⁷⁵ Arkell and Johnson (2005)

Services liberalisation is expected to help increase the use of environmentally efficient management techniques and technologies in MPCs, and add to the pressures on MPC governments to improve environmental regulation and enforcement. This will provide a fairly small addition to the promotion of such techniques by international agencies.

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.

Natural resource stocks

Greater use of environmentally efficient management techniques and technologies will also tend to reduce pressures on consumption of water and other resources, but the impact is not expected to be significant in relation to other effects in this area.

5.4. Process impacts

5.4.1. Influence on sustainable development processes

Several of the service sectors affected, particularly telecommunications and transport, can have important beneficial influences on the processes of economic and social transformation through which MPCs can become high income industrialised economies.

Liberalisation will also help to enable stronger environmental management, but this effect not expected to be big enough to counter the increased pressure in the opposite direction, towards greater economic growth, resource dependency, pollution and waste generation. Increased transport associated with distribution services liberalisation will additionally add to climate change pressures.

5.4.2. Impacts on core process indicators

Consistency with sustainable development principles

The effects will be similar to those in Table 4 above for industrial products. All are beneficial or neutral, except for the principle of reducing and eliminating unsustainable patterns of production and consumption (Principle 1).

Institutional capacity for effective sustainable development strategies

The effects on sustainable development strategies will be similar to those in Table 5 above for industrial products. Objective 1 (economic development), Action 3 (transport management) and Action 6 (urban development) are enhanced. Adverse effects occur for Objective 3 (production and consumption) and Action 2 (climate change).

5.5. Summary of sustainability impacts for services

The results of the impact assessment for services are summarised in Table 11.

Table 11. Impact summary – services

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
Economic					
<u>Real income</u>	EU service providers MPCs. Stronger where services share is high and where initial barriers are high (e.g. Tunisia and Egypt). Strongest in Transportation, Finance and Telecom. EU and MPCs	Increased exports Lower prices, higher incomes Increased growth rate	Competition policy and effective regulation Other aspects of economic policy and technology policy Investment climate	↑ ↑	↑ ↑
<u>Fixed capital formation</u>	FDI and local investment in Transportation, Finance and Telecommunications.	Production changes; Removal of barriers	Investment climate	↑	↑
<u>Employment</u>	Similar to sectors where real income changes.	Production, labour productivity.	Education and training; labour market flexibility and retraining	↓	-
Social					
<u>Poverty</u>					
wage rates	MPCs	Better economic performance		-	↑
unemployment	Distribution services, MPCs	Loss of employment in small retailers	Phasing of reforms and domestic policy	↓	-
<u>Health and education</u>	MPCs	More efficient services		↑	↑
<u>Equity</u>	Distribution services, MPCs	Loss of employment in small retailers	Phasing of reforms and domestic policy	↓	-
culture	all	access to European services	advertising standards	↑↓	↑↓
Environmental					
Biodiversity	general	no significant impacts identified		-	-
<u>Environmental quality</u>					
air and water quality	environmental services, energy services etc.	greater use of improved management techniques	government willingness to revise legislation	↑	↑
solid waste	distribution services	increased packaging	stronger regulation, recycling	↓	↓
climate change	distribution services	long range transport		↓	↓
<u>Natural resources</u>	environmental services, energy services etc.	minor beneficial impacts		-	-
Process					
<u>SD principles and strategies</u>					
general	all	Consistent with most principles and strategic objectives		-	↑
economic development	MPCs, transport management, urban development	Higher growth, skills transfer	Effective regulation	-	↑
production/consumption	MPCs	Accelerated growth	Environmental policies	-	↓
climate change	all	Increased transport	global agreements	-	↓

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, ? effect strongly dependent on other factors.

6. Impacts of south-south trade liberalisation

6.1. Economic impacts

6.1.1. Background

The assessment examines the economic effects from greater south-south liberalisation of trade amongst MPCs. This may have beneficial effects for the EU in respect of greater integration across the whole Mediterranean region, but the direct economic effects on the EU are not expected to be significant. This section therefore assesses only the impacts in MPCs. We discuss two types of south-south liberalisation: in goods and in services.

Most of the bilateral and regional agreements among MPCs involve slow and gradual trade liberalisation reflected by, *inter alia*, various exemptions lists and exclusion of agriculture products and services (countries have met only recently to discuss services). The Greater Arab Free Trade Area (GAFTA) includes agriculture but with seasonal exemptions. In practice, many imports competing with domestic production have not been liberalised, bilaterally or regionally (and multilaterally, given relatively high MFN rates).

The main difference between regional trade liberalisation amongst developed countries and liberalisation amongst developing countries is the share of merchandise trade covered by such agreements. While trade within the EU and NAFTA cover more than half of total trade by these blocks, this is not the case for regions amongst developing countries. The level of intra-regional trade is low in the Mediterranean region. Table 12 shows that less than 5% of total trade is within the region. This is low even by standards for developing countries. Further, intra-Arab trade has not increased as much since 1980 as intra-regional trade in other developing country regions, such as ANDEAN and ASEAN.

Table 12. Trade by Mediterranean partner countries (MPC): exports plus imports

	Share by region		
	1995	1999	2000
MPC	4.5%	4.7%	4.7%
EU	52.4%	51.6%	49.7%
Rest of World	43.1%	43.7%	45.7%

Source: Femise (2002)

Another difference between the core of the EU and the MPC region lies in the type of integration (Müller-Jentsch 2005). Regional integration consists of different forms and no two regions are the same, e.g. with respect to regulatory convergence (common standards, mutual recognition, adoption of global standards). Müller-Jentsch advocates that the region consider deeper integration along sector lines, and that backbone services require priority (transport, telecoms, financial markets and electricity). While he suggests that multilateral trade liberalisation should be given precedence over regional liberalisation, deeper forms of regional integration are useful for when regulatory cooperation (air, transport and electricity) or cross-border infrastructure is required, or when progress in GATS has been limited (e.g. in electricity and transport).

Here we assess two different pillars of south-south liberalisation:

- Elimination of tariffs and NTBs on goods amongst MPCs;
- Removal of barriers to trade in services amongst MPCs.

The elimination of tariffs is mainly a matter of implementing existing south-south agreements. There are also discussions about rules of origin, regulations and standards. Trade in services on the other

hand adds a new dimension to regional liberalisation. Services liberalisation tends to be less well addressed in regional trade agreements.

6.1.2. Economic effects for trade in goods

The economic analysis for south-south liberalisation in goods trade follows a similar causal chain analysis to that used for the other components of the EMFTA:

- Identify the trade measures, which include tariffs and a range of NTBs, which are relatively high amongst MPCs.
- Assess the trade effects. These are expected to be relatively small, because trade between MPCs is relatively small.
- Assess the economic effects. Allocative efficiency effects are expected to be small, because of the small share covered by intra-regional trade in goods. Dynamic effects could be positive, because lower tariffs may raise productivity and therefore preparedness to liberalise multilaterally, and because inward FDI might be attracted as the result of forming a region. There appear to be some cases of increasing intra-industry trade amongst MPCs, but overall the integration in international production networks remains low. There might be effects due to the loss in government revenues from lower trade taxes (such effects dominate when there is trade diversion away from previously taxed imports).

We thus anticipate small economic effects of south-south trade liberalisation. The effects will be bigger and more positive if partner countries are able to specialise in products and reap the benefits from scale economies. Such effects might be reinforcing if countries in the region trade and invest more with each other as their economies grow. There are however only a few examples in other regions of where south-south trade liberalisation has led to significant dynamic effects of this nature.

6.1.3. Economic effects for trade in services

Galal and Hoekman (2003) suggest that most of the gains from trade liberalisation in the region would come from services liberalisation, not goods, since the countries in the region have similar goods production structures. A regional agreement which allows free entry into services activities can help domestic services companies to expand to regional markets before becoming more competitive in world markets. There might also be more intra-regional FDI, which might lead to more competition in services provision (dynamic efficiency) and cheaper supply of services from foreign sources (allocative efficiency).

The following sub-sectors are key to regional services liberalisation.

- *Transportation services.* Maritime transport is the most important form of intra-regional transport of goods. Therefore, regional provisions on shipping will be important. The regulatory regime for road transport is highly restrictive in the region. For instance, cross border freight transport returning with cargo is not allowed by most of the countries. Internal coasting trade is also not allowed in many countries. A regional agreement regarding land transport that would deal with this would help the economies significantly. Transport also facilitates goods trade and tourism (Muller-Jentsch, 2003).
- *Financial services.* Banking and insurance regulations exhibit little harmonisation or provisions for the right of establishment between MPCs. There is relatively little integration among the financial institutions in the region. Domestic financial institutions have comparably high operating costs, but while there might be some efficiency gains from regional integration, it is likely that most would come from integrating domestic financial markets into world financial markets, allowing greater attraction of FDI and know-how.

- *Labour services.* Free movement of labour can enhance the efficiency of production. Further cooperation on recognition of certification standards, visa and work permit practices, and other measures allowing the temporary movement of personnel amongst MPCs would raise welfare. The SIA scenario examines mainly the lifting of restrictions on corporate personnel such as engineers, architects, accountants, lawyers, and computer programmers, but freer movement of all categories of labour would enhance economic efficiency.

Finally, one of the reasons to stimulate regional integration has been the fact that the EU Association Agreements may involve diversion away from intra-Arab trade and investment, favouring north-south trade in the so-called 'hub and spoke' effect. South-south integration would help prevent this. It would indeed be reasonable to expect that MPCs would obtain more production (and FDI) when it is easier to trade and invest with them as a group. However, it is important to bear in mind that their main export market is the EU, limiting the amount of FDI the region can attract. Normally, regions can attract more FDI as it becomes cheaper to operate in the region, and to serve the region as a whole (a beachhead or market size effect). Some are more positive about this effect (Jaumotte 2004) than others (Martin 2004).

6.1.4. Modelling results for economic welfare

There are relatively few CGE models on south-south trade liberalisation, with similar levels of uncertainty to those discussed above. The effects have been modelled by Hoekman and Konan (1999) for Egypt, by Konan (2002) for Egypt and Tunisia, and by Bayar et al (2000, 2001) for Turkey and Morocco. The Bayar et al studies also estimate the welfare changes for the rest of the Middle East as a whole, the rest of North Africa as a whole and the EU. For Tunisia, Morocco, the rest of North Africa and the EU, the studies indicate that the changes in economic welfare arising from the removal of south-south tariffs on industrial and agricultural goods are close to zero, ranging from -0.2% to 0.2%. The results are also close to zero for Turkey and the Middle East as a whole (-0.1% to 0.4%), but possibly higher for Egypt (0.2% to 0.9%).

In addition to short term impacts and longer term investment effects, Bayar et al (2001) also model the impact of technologically induced economic growth. The estimated impact of south-south liberalisation on welfare remains small for Morocco, the EU and the rest of the Middle East (excluding Turkey). For the rest of North Africa the study indicates a small reduction in welfare, of 0.6%. For Turkey the results give a much bigger welfare rise, of over 5%, in addition a similar rise resulting from liberalisation with the EU. As discussed above, these longer term growth effects are critically dependent on modelling assumptions and technology policy.

The studies for Egypt and Tunisia also examine the effects of removing non-tariff barriers on industrial and agricultural products, both for south-south liberalisation and trade with the EU. For both countries this gives welfare gains of about 4%, but since most of the NTBs are removed primarily through domestic reforms, the estimated gains are similar regardless of whether the barriers are reduced through unilateral reform or associated with regional agreements.

The study for Egypt by Hoekman and Konan also examines south-south liberalisation of services. When liberalisation by the EU is relatively limited, south-south liberalisation increases the estimated welfare gain by 3%, from 13.5% to 16.7%. With fuller EU liberalisation, the extra effect of south-south liberalisation is only 0.5%, raising the estimated gain from 20.6% to 21.1%. As discussed above for the services component of the EU-MPC agreements, most of the benefits to MPCs come from domestic reforms. Hence, as for EU-MPC services liberalisation, the additional gain from south-south agreements is likely to be small, and strongly dependent on the relationships between particular services and other sectors of the economy.

Sideri (2000) describes the static efficiency gains available from regional trade liberalisation as meagre, and argues that for regional integration to become an effective development strategy, trade

liberalisation should go hand in hand with regional industrial policy, the creation of regional institutions, and a co-ordinated policy to develop further regional infrastructure. Handoussa and Reiffers (2001) presents a similar argument, that the main benefits of integration would come from developing greater complementarity in south-south trade and significant improvements in regional production structures. ESCWA (2005) argues that the effects of regional trade liberalisation on its own would at best be limited, and at worst harmful, with the more developed countries of the region reaping the benefits at the expense of weaker ones. The potential economic benefits of more fully integrated development are likely to be much greater, but the difficulties of achieving it are complex. In the context of the SIA, a distinction needs to be drawn between south-south trade liberalisation and south-south integration. While trade liberalisation might act as a catalyst for long term dynamic benefits from fuller regional integration, its own impact is expected to be small.

6.1.5. Rules of origin

None of the studies explicitly models the effects of rules of origin (RO), although by implication they are included in the analytical assumptions. Augier, Gasiorek and Lai-Tong (2003) have undertaken an econometric study of the effects, which identifies statistically significant correlations between rules of origin, tariffs and trade flows. It does not however estimate the magnitude of the effects.

Rules of origin are necessary in bilateral or regional trade agreements, to ensure that preferential treatment does not extend to externally sourced materials. In principle, a regional trade agreement should allow full cumulation of origin for materials sourced from any country within the region. In a customs union, such as the EU itself, the source of materials need not be traced, since they are subject to the same tariffs and other restrictions when imported into any country in the union. By contrast, in the current implementation of the EMFTA, rules of origin are defined separately in each association agreement between the EU and MPCs, requiring evidence of material sources, and limiting the extent of cumulation among MPCs. This increases transaction costs and acts as a significant barrier to MPC exports to the EU. The 2003 Palermo conference of Euromed Trade Ministers⁷⁶ prompted the adoption of a new Protocol on rules of origin, with the aim of widening up preferential trading patterns among MPCs. At the same time however, Ministers noted that in order to enable full implementation of the Protocol, south-south agreements would need to be upgraded into full FTAs.

Handoussa and Reiffers (2001) argue that restrictive RO can have serious negative repercussions. Producers who export to the EU might prefer to buy high cost European input rather than buy from other MPCs. Investors may also prefer to locate in Europe, and increase the hub and spoke effect. The authors suggest that ROs are highly restrictive for some sensitive products such as textiles, and that to escape this, MPCs need to create a free-trade area among themselves. Zarrouk and Zallio (2000) argue that the problem lies in the cumulation rules in the EU-MPC association agreements, which are narrowly defined, and apply only to Maghreb countries. Sideri (2000) argues that MPCs should tackle the problem by renewing the emphasis on integration, and ensuring that rules of origin requirements underlying their own FTAs are not as restrictive as those contained in the association agreements with the EU. The difficulties of achieving this are illustrated by the negotiation issues experienced in agreeing rules of origin in the Agadir Agreement between Morocco, Tunisia, Egypt and Jordan. Morocco and Tunisia were reluctant to change their rules of origin to allow for cumulation, because, for their low level of intra-regional trade, the cost of changing the system was considered to be higher than the benefits⁷⁷.

It is concluded that establishing a common system of rules of origin to allow full cumulation would make a significant contribution achieving the potential benefits of south-south integration, although the necessary negotiations may be complex.

⁷⁶ Euromed (2005)

⁷⁷ Radwan and Reiffers (2005)

6.1.6. Effects on government revenues

As seen in Table 12, total trade between MPCs is only a tenth of their trade with the EU. The effect on tax revenues of removing tariffs is therefore likely to be much smaller. Hoekman and Konan (1999) have estimated the magnitude of the effect in Egypt, both for the EU-Egypt agreement and for south-south liberalisation. For EU-Egypt, government revenue falls by about 1.5%. The additional effect of south-south liberalisation is up to 0.1% in either direction, depending on the form of liberalisation. The effect is likely to be greater in countries such as Lebanon whose trade with other MPCs is higher, and smaller in those such as Tunisia and Morocco where EU trade is higher. It is not however expected to be a major effect in any of the MPCs.

6.1.7. Production effects

For most MPCs the production changes resulting from liberalisation of goods trade are also likely to be smaller than those for liberalising trade with the EC, again because the volume of south-south trade is smaller. Konan (2002) has modelled the overall sectoral changes for Egypt and Tunisia, giving the results shown in Table 13.

Table 13. Sectoral production impacts of south-south industrial and agricultural tariff removal

	Production (share of GDP %)				GAFTA % change
	Benchmark	GAFTA	Euro-Med Agreement	GAFTA plus Euro-Med	
TUNISIA					
Agriculture	19.5	19.5	15.9	15.9	0.0
Manufacturing	33.0	32.7	42.6	42.6	-0.9
Mining and Utilities	7.0	7.2	5.8	5.9	2.9
Services excl. tourism	41.0	40.6	35.7	35.6	-1.0
EGYPT					
Agriculture	22.6	21.2	21.1	21.0	-6.2
Manufacturing	39.8	41.7	41.0	40.9	4.8
Mining and Utilities	3.7	3.6	3.8	3.8	-2.7
Services excl. tourism	33.4	33.5	34.1	34.4	0.3

Source: Konan (2002)

The volume of south-south trade compared with EU trade is greater for Egypt than Tunisia, and so the production changes for south-south liberalisation (GAFTA) are bigger than in Tunisia. Egypt experiences a significant fall in agricultural production, but this is similar to that arising from EU-Egypt liberalisation, with little change when the two are combined.

Bayar, Diao and Yeldan (2000) have modelled production changes at product group level for a customs union for all the countries of the Middle East and North Africa, in which both tariff and non-tariff barriers are removed. The results are given in Table 14.

Table 14. Production impacts of south-south integration at product group level (% change)

	Turkey		Morocco		Middle East (excl. Turkey)		North Africa (excl. Morocco)	
	Short term	Medium term	Short term	Medium term	Short term	Medium term	Short term	Medium term
Grains	-0.30	0.20	-0.50	-0.10	-0.30	-0.10	0.10	0.40
Vegetables	-0.10	0.20	-0.80	-0.40	-0.20	-0.10	-0.40	-0.10
Sugar	-0.40	0.10	-0.30	0.10	0.10	0.20	-0.20	0.20
Livestock	-0.80	-0.50	0	0.30	0.30	0.50	-0.20	0
Other agriculture	-0.50	0.10	-0.70	-0.30	0.30	0.50	-0.40	-0.10
Processed food	0.10	0.70	0	0.40	0	0.10	-0.20	0
Textiles	0.80	2.50	0.60	1.00	0	0.20	-0.50	-0.10

	Turkey		Morocco		Middle East (excl. Turkey)		North Africa (excl. Morocco)	
	Short term	Medium term	Short term	Medium term	Short term	Medium term	Short term	Medium term
Other manuf.	0.70	1.60	0.40	0.90	0	0.20	0	0.30
Services	-0.10	0.50	0	0.20	0	0.10	0.10	0.30

Source: Bayar, Diao and Yeldan (2000)

The short term results in Table 14 represent the immediate effects of removing barriers, before investment decisions have taken effect to increase production capacity for competitive products. The medium term results are for the model's twentieth iteration of investment responses. All the estimated production changes are small in absolute terms, and also in comparison with the same model's results for EU-Turkey and EU-Morocco liberalisation.

Taking these two studies together, it may be concluded that production effects are smaller than those occurring from EU-Med liberalisation, but that significant impacts may nonetheless occur for particular types of product in those countries whose trade with other MPCs is relatively high. The effects may be in either direction, such as the 3% increase in mining and utilities estimated for Tunisia, and the similar decrease in Egypt.

6.1.8. Impacts on core economic indicators

Real income

Greater integration of MPC economies offers potentially large long term economic benefits for the region. Liberalisation of trade in goods and services between MPCs would be an essential part of such integration, but only one component. Other necessary aspects may for example include the development of integrated regional industrial and agricultural policies, regional cooperation to manage the employment effects of greater complementarity in agricultural and industrial production, the creation of regional institutions, and cooperative investment in regional transport and other infrastructure. On its own, the economic impacts of south-south trade liberalisation are expected to be positive but small.

For removal of tariffs on industrial and agricultural goods, the welfare effects in North African countries are close to zero, but they may be significant in Mashreq countries whose trade with other MPCs is greater.

For removal of non-tariff barriers on goods and services the welfare gains are significant, but arise primarily from domestic reforms. Little if any extra gain is associated specifically with south-south liberalisation.

A small loss of government revenue will occur in countries with relatively high levels of trade with other MPCs, but the effect is expected to be of only minor significance.

Fixed capital formation

The impacts will be broadly similar to those described for liberalisation of trade in goods and services with the EU, but are expected to be smaller, in line with the smaller volumes of trade between MPCs. The effects of fuller south-south integration would be significantly greater than those arising from trade liberalisation on its own.

Employment

The employment impacts arising from production changes are expected to be smaller than for liberalisation of trade in goods with the EU. There may however be significant short term adverse

impacts in for some types of product in Mashreq countries whose trade with other MPCs is relatively high.

6.2. Social impacts

6.2.1. Unemployment and migration

Without effective parallel policy measures, short term losses of employment are likely in some sectors during the period of adjustment. The effects will be smaller than for liberalisation with the EU, and experienced mainly in those countries with high tariffs and relatively high volumes of trade with other MPCs. As with the impacts of the other components of the EMFTA scenario, the longer term effect on unemployment is expected to be neutral.

South-south trade liberalisation is expected to increase incentives for higher productivity in both agriculture and manufacturing in all MPCs. Unless significant manufacturing growth is achieved, there will be a small acceleration of rural-urban migration, with consequent additional adverse effects on urban living conditions.

Liberalisation may have a small impact on migration between MPCs, but this is not expected to be significant.

6.2.2. Wage levels and real incomes

There may be some downward pressure on wage rates in some areas in the short term, but this is not expected to be large. The longer term effect of increasing productivity is likely to have a beneficial effect on wage rates in all areas.

6.2.3 Social and health expenditure

In countries with high tariffs and relatively high volumes of trade with other MPCs, there will be a small loss of government revenues. Unless action is taken to raise revenue from other sources, there may be a small adverse effect on social and health expenditure.

6.2.4. Gender effects

Gender effects are likely to be similar to those arising from the liberalisation of industrial and agricultural goods and of services trade with the EU, but smaller. Small changes in the gender distribution of employment may occur in some areas, similar to those for industrial liberalisation with the EU.

6.2.5. Impacts on core social indicators

Poverty

In the short term, there may be adverse effects on poverty in some areas, through loss of employment in those sectors that have a comparative disadvantage compared with other MPCs. Long term effects on poverty are expected to be small but positive, arising from better economic performance and higher wage rates.

Health and education

Unless revenues are raised from other sources, a small loss of tariff revenues may feed through to slightly reduced social and health expenditure in countries with high tariffs and relatively high trade with other MPCs. Longer term improvements can be expected through better economic performance.

Equity

The small changes that are expected in economic welfare are likely to be fairly uniformly distributed, with no overall effect on distribution of real incomes. Wage increases are also likely to be distributed fairly uniformly, and so effects on social equity are expected to be neutral.

There may be some small changes in the gender distribution of employment, but they are not expected to be significant.

6.3. Environmental impacts

6.3.1. Liberalisation of trade in industrial and agricultural goods

The assessment of the economic effects of south-south integration of trade in goods shows that production changes are likely to be much smaller than those for liberalisation with the EU. The environmental impacts will therefore be similarly smaller. Some effects may however be significant. The economic assessment estimates a decline in agricultural production in Egypt of 6%, and a rise in manufacturing of 5%. Mining and utilities may rise by 3% in Tunisia, and fall by the same amount in Egypt. This gives an indication of the potential order of magnitude of production changes which may occur in other MPCs, which may be somewhat greater than this for particular product groups.

Production increases and decreases of this order can be expected in both agriculture and manufactured products, particularly in those countries whose trade with other MPCs is relatively large. Environmental impacts will in general be beneficial where production falls, and potentially adverse where it rises. The magnitude of adverse impacts is likely to be significantly smaller than for liberalisation of trade with the EU, but will nonetheless add to the need for stronger environmental management in order to avoid potentially adverse impacts of the EMFTA.

A further environmental impact will arise from the additional transport requirements of increased regional trade. This will be adverse unless countered by efficiency improvements as discussed below.

6.3.2. Liberalisation of services trade

South-south integration of services is expected to have two effects that may have impacts on the environment: greater freedom for regional maritime and road transport; and, increased efficiency in services provision.

More efficient and better resourced maritime transport should include provision for the management of ship waste and the development of a regulatory and enforcement regime to combat marine pollution. This would contribute substantially to reduction of oil and solid waste pollution around ports, and in coastal regions enhance the value for tourism. Liberalisation of road freight regulation would increase the efficiency of journeys, by allowing vehicles to return fully laden. It would also reduce waiting times at control points and, therefore, vehicle emissions from idling engines. It could also provide the incentive to modernise fleets. Modern vehicles emit less smoke and are more fuel efficient. Many of these effects could be quite significant in the context of extensive integration of MPC economies, collaborative reform of regulatory systems, and cooperative development of regional infrastructure. South-south trade liberalisation would be an essential part of deeper integration of this nature, but its own impacts in these areas are not expected to be of more than minor significance, and may not be sufficient to counteract the adverse transport effects of the additional freight movements.

6.3.3. Impacts on core environmental indicators

Biodiversity

South-south liberalisation of agricultural trade will have impacts similar to those identified for trade with the EU, but smaller. Short term effects on biodiversity will generally be beneficial where production declines and adverse where it rises, and most significant in areas that are already under stress. Adverse pressures arising from increasing production in the longer term will be partially countered by greater resource efficiency and improved techniques.

Environmental quality

Effects on air quality, water quality and land degradation associated with industrial or agricultural pollution will have beneficial impacts where production falls and adverse ones where it rises, unless countered by stronger regulation. In most areas impacts will be smaller than for liberalisation with the EU. Long term beneficial impacts arising from more environmentally efficient production techniques will also be somewhat smaller, since much of this effect arises from competition with EU producers.

Impact on climate change will be adverse, arising primarily from increased international transport, but smaller than for liberalisation with the EU.

Natural resource stocks

Pressures on water and other natural resource stocks are expected to be reduced in the short term, through greater efficiency in regional utilisation. In the longer term, the effect of liberalisation on accelerating economic growth will have adverse effects, unless countered by stronger regulation.

6.4. Process impacts

6.4.1. Influence on sustainable development processes

The effects discussed above for south-south liberalisation include two main influences on sustainable development processes. First, liberalisation of services, particularly for telecommunications and transport, can have important beneficial effects on the economic and social transformation of MPCs. The effect is not as great as would arise from fuller integration of MPC economies and development strategies, but is expected to be significant nonetheless. Second, although greater efficiency of resource allocation may relieve some of the pressures on environmental resources and biodiversity in the short term, liberalisation will help to accelerate economic growth in MPCs, and add to the need for stronger environmental management.

6.4.2. Impacts on core process indicators

Consistency with sustainable development principles

The effects will be similar to those in Table 4 for industrial products. All are beneficial or neutral, except for the principle of reducing and eliminating unsustainable patterns of production and consumption (Principle 1). There will be negative impacts in this area unless appropriate mitigating policies are adopted.

Institutional capacity for effective sustainable development strategies

The effects on sustainable development strategies will be similar to those in Table 5 for industrial products. Objective 1 (economic development) and Action 3 (transport management) are enhanced, with a smaller beneficial effect on Action 6 (urban development). Adverse effects occur for Objective 3 (production and consumption) and Action 2 (climate change).

6.5. Summary of sustainability impacts for south-south liberalisation

The results of the impact assessment for south-south liberalisation are summarised in Table 15.

Table 15. Impact summary – south-south liberalisation

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
Economic					
<u>Real income</u> welfare	Greater in Mashreq countries with high MPC trade and high tariffs	Lower consumer and input prices, higher incomes	Pass through of tariff reduction to domestic prices. Competition policy and effective regulation	↑	↑
government revenues	All MPCs	Faster economic growth	Other aspects of regional integration Compensation through other revenue generating activities	-	↑?
<u>Fixed capital formation</u>	Countries with high MPC trade and high tariffs	Reduction in tariffs	Investment climate, firm dynamics, ability to change products	↓	↓
<u>Employment</u>	Similar to liberalisation with EU but smaller	Production changes, firm closures, new investment	Wages policy, labour market flexibility, training, long term growth	↓	↑
	Mainly Mashreq countries with high MPC trade and high tariffs	Production changes, labour productivity		↓	-
Social					
<u>Poverty</u>					
consumer prices	Countries with high MPC trade	Increased competition	existing unemployment and vulnerability, wages policy, training, workforce mobility	↑	↑
unemployment	Countries with high MPC trade and high tariffs	Production changes	Skills and technology development, long term growth	↓	-
wage rates	All MPCs	Better economic performance	Compensation through other revenue generating activities	-	↑
<u>Health and education</u>	Countries with high MPC trade and high tariffs	Lower tax revenues		↓	↓
<u>Equity</u>	All	Effects are expected to be neutral		-	-
Environmental					
<u>Biodiversity</u>	Positive and negative effects in locations where production falls and rises.	Production changes and pressures on resources	Existing levels of stress. Implementation of programmes to protect sensitive areas and promote sustainable use	↑↓	↑↓
<u>Environmental quality</u>					
air, water, land	Positive and negative effects in locations where production falls and rises.	Production changes, greater intensification, greater resource efficiency	Stronger regulation, support for efficiency improvements	↑↓	↑↓

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
climate change	all	international transport	transport modes	↓	↓
<u>Natural resources</u>	all	Greater efficiency in regional utilisation. Economic growth.	Existing levels of stress. Water management and land use policies and regulations	↑	↓
Process					
<u>SD principles and strategies</u> general	all	Consistent with most principles and strategic objectives		-	↑
economic development, urban development	Integrated transport and development	Higher growth, higher skill levels	Policies for regional integration	-	↑
production/consumption	all	Accelerated growth	Environmental policies	-	↓
climate change	all	Increased transport	Global agreements	-	↓

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, ? effect strongly dependent on other factors.

7. Impacts on MSSD indicators and Millennium Development Goals

The nine core indicators and two process indicators that have framed the SIA study are sufficiently broad to embrace all the Millennium Development Goals (MDGs), and cover all the areas of concern addressed in the Mediterranean Strategy for Sustainable Development (MSSD). The MDGs are operationalised through 18 targets, while the MSSD has established 34 priority indicators for monitoring and follow-up. The findings of the study may be used to evaluate the extent to which the EMFTA scenario that has been analysed will contribute to, or detract from, achieving the MDG targets, and influence the MSSD indicators. The assessed impacts on the targets and indicators are presented in Tables 16 and 17.

Additionally, a number of impacts on sustainable development have been identified in the study which are not fully represented by an MDG target or MSSD indicator. Detailed indicators for these impacts are presented in Table 18, along with the assessed impact significance.

Legend:
 Ind – industrial; Ag – agriculture; Ser – services; S-S – south-south liberalisation; all – full EMFTA
 ↑ 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.

Table 16. Impacts on the Millennium Development Goals

MDG	Targets		Impact significance			
			Ind	Ag	Ser	S-S
Goal 1 Eradicate Extreme Poverty And Hunger	1	Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day	⤵	⤵	⤴⤵	⤴ ⤵
	2	Halve, between 1990 and 2015, the proportion of people who suffer from hunger	⤵	⤴⤵	⤴⤵	⤴ ⤵
Goal 2 Achieve Universal Primary Education	3	Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	⤵	⤵	⤴	⤵
Goal 3 Promote Gender Equality And Empower Women	4	Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015	-	-	-	-
Goal 4 Reduce Child Mortality	5	Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	⤵	⤵	⤴	⤵
Goal 5 Improve Maternal Health	6	Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	⤵	⤵	⤴	⤵
Goal 6 Combat Hiv/Aids, Malaria, And Other Diseases	7	Have halted by 2015 and begun to reverse the spread of HIV/AIDS	-	-	-	-
	8	Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	-	-	-	-
Goal 7 Ensure Environmental Sustainability	9	Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	⤴⤵	⤴⤵	⤴⤵	⤴ ⤵
	10	Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation	-	-	⤴	-
	11	Have achieved a significant improvement by 2020 in the lives of at least 100 million slum dwellers	-	-	-	-
Goal 8 Develop A Global Partnership For Development	12	Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system (including a commitment to good governance, development, and poverty reduction, nationally and internationally)	⤴	⤴	⤴	⤴
	13	Address the special needs of the least developed countries (including tariff- and quota-free access for exports of the least developed countries; enhanced debt relief for heavily	-	-	-	-

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

Table 17. Impacts on the MSSD indicators

Priority action	Indicators		Impact significance			
			I	A	S	SS
Improving integrated water resource and demand management	1	Water efficiency index (total and per sector with reference to efficiency objectives)	↑	↑↓	-	↑
	2	Water intensity index ratio compared to GDP and research of evaluation of Water intensity irrigated agriculture production added value compared with water demand for irrigation	-	↑↓	-	↑↓
	3	Exploitation index of renewable water resources	↑	↑↓	-	↑
	4	Proportion of the population with access to safe drinking-water (total, urban, rural) with reference to MDGs	↑	-	↑	↑↓
	5	Proportion of the population with access to sanitation (total, urban, rural) with reference to MDGs	-	-	↑	-
Managing energy demand and mitigating the effects of climate change	6	Energy intensity, total and per sector, with reference to efficiency objectives	↑	-	↑	↑
	7	Proportion of renewable energies in the energy balance sheet	-	-	-	-
	8	Green house gas emission	↓	↓	↓	↓
	9	Number of carbon emission reductions and amount financed in the framework of the Kyoto Protocol flexibility mechanisms by the annex 1 countries to the benefit of other Mediterranean countries	-	-	-	-
Ensuring sustainable mobility through appropriate transport management	10	Motorized transport intensity in relation to the GDP	-	-	-	-
	11	The proportion of road transport in terms of freight transport	-	-	-	-
	12	Proportion of public surface transport (urban and interurban)	-	-	-	-
Promote sustainable tourism	13	Proportion of non-seaside beds in total number of holiday beds	-	-	-	-
	14	International tourism receipts with assessment of effective benefits for destination countries and local populations	-	-	-	-
Promoting sustainable agricultural and rural development	15	Agricultural population to rural population ratio, with identification of socio economic indicators (employment, businesses)	-	↓	-	-
	16	Loss of arable land by desertification, erosion, salinization, artificialization and agriculture abandonment	-	↑↓	-	-
	17	Sustainable rural development programmes for underprivileged rural areas, reconciling human development and environmental protection, including biosphere reserves and natural parks (proportion of relevant department budget)	-	↓	-	-

Priority action	Indicators		Impact significance			
			I	A	S	SS
	18	Proportion of agriculture quality products (identification, labelling and geographical origin, homeland products, labels, organic farming)	-	↑	-	-
Promoting sustainable urban development	19	Number of cities with over 10000 inhabitants engaged in a process Agenda 21 type or in urban renewal programmes	-	-	-	-
	20	Proportion of urban population with access to a decent dwelling	-	-	-	-
	21	Household waste generation per capita and the number of uncontrolled dumping sites	↓	-	↓	-
	22	Air quality in major Mediterranean urban areas, assessed via a composite index (indicator) to be defined (e.g. ATMO index)	↑	-	↑	↑↓
Promoting sustainable management of the sea and the costal areas and take urgent action to put an end to the degradation of coastal zones	23	Artificialized coastline / Total coastline (0–1-km and 1–10-km strip)	-	-	-	-
	24	Operational pollution from ships	↑	↑	↓	↑
	25	Proportion of coastal urban inhabitants with no access to sanitation	-	-	-	-
	26	Surface of protected coastal and marine areas	-	-	-	-
Strengthen solidarity, commitment and financing for a sustainable development at regional, national and local levels	27	ODA allocated as % of OECD DAC countries donors' GNP; proportion of the ODA allocated to Mediterranean countries and proportion contributing to the strategy objectives	-	-	-	-
	28	EU net public financial flows to EU Mediterranean members, candidates, CARDS and MEDA countries (in absolute value and per capita) and proportion contributing to the objectives of the strategy	-	-	-	-
	29	Proportion of bank credit allocated to the private sector – Existence of alternative financing systems to bank credit	-	-	-	-
	30	Proportion of local government tax revenue as % of total tax revenues (government receipts). Proportion of government budget allocated to local authorities.	-	-	-	-
	31	Public financial mechanisms to support the least favoured regions	-	-	-	-
Strengthen human capital and actors' involvement: research, training, education, awareness-raising and participation	32	Literacy rate of young people between 15 and 25 years old	↓	↓	-	↓
	33	The girl/boy ratio enrolment in primary education and high school	-	-	-	-
	34	Public and private expenses for research and development in % of GDP	-	-	-	-

Table 18. Impacts on additional detailed indicators

Core indicator	Detailed indicators	Impact significance			
		I	A	S	SS
Economic					
Real income	GDP growth rate	↑↓	↑↓	↑	↑
	consumer prices	↑	↑	↑	↑
	exchange rate	↓	-	-	-
Fixed capital formtn.	savings and investment	↑↓	-	↑	↑↓
	trade balance	↓	-	-	-
	current account	↓	-	-	-
Employment	unemployment level	↓	↑↓	-	↓
Social					
Poverty	Human Poverty Index (HPI – life expectancy, literacy rate, access to clean water, overweight children)	↓↑	↑↓	↑↓	↑↓
Health and education	Human Development Index (HDI – GDP/cap, life expectancy, literacy rate, school enrolment)	↓	↓	↑	↓
Equity	income distribution (Gini)	↓	↓	-	-

	Gender Development Index (GDI – female/male life expectancy, female/male literacy rate, female/male school enrolment, female/male earned income)	↑↓	↓	-	-
Environmental					
Biodiversity	land use change	-	↑↓	-	↑↓
	desertification	-	↓	-	↑↓
	marine biodiversity	-	-	-	-
Environmental quality	water global quality index	↑	↑↓	↑	↑↓
	air global quality index	↑	↑↓	↑	↑↓
	emissions of greenhouse gases	↓	↓	↓	↓
Natural resources	non-sustainable water use	↑	↑↓	-	↑↓
	energy intensity	↑	-	-	-
Process					
SD principles	polluter pays principle	↑↓	↑↓	↑↓	↑↓
	precautionary principle	↑↓	↑↓	↑↓	↑↓
	quality and enforcement of environmental legislation	↑	-	-	-
SD strategies	design and implementation of integrated development strategy	↑↓	↑↓	↑↓	↑↓

8. Opportunities for mitigation and enhancement

8.1. Impacts in the European Union

The main significant impacts of the EMFTA that have been identified for the EU are an overall economic gain, accompanied by potentially adverse social effects arising from agricultural liberalisation. The adverse effects are restricted to local areas of EU Mediterranean countries (Spain, Greece, Italy, Portugal and southern France, and probably also Cyprus and Malta). They will be associated with local environmental impacts, which are expected to be beneficial for water consumption and biodiversity, with potentially adverse effects on amenity value.

The overall economic benefit could be maximised by full and rapid liberalisation. This would however exacerbate the local adverse effects, particularly in the short term. These can be mitigated by:

- limiting the extent of agricultural liberalisation, e.g. for sensitive products
- reducing the pace of agricultural liberalisation, to allow time for other measures to take effect
- parallel policy measures such as providing local support for the multi-functional role of agriculture, associated with reforms of the Common Agricultural Policy (CAP).

In the short term, the level of support would need to be high enough to avoid a significant increase in unemployment in the affected areas (including temporary migrants from MPCs as well as local people). The faster the pace of liberalisation and the fuller its extent, the greater the level of the necessary support. In the long term, the level and nature of such support would be determined by a balance of economic and political considerations, related to choices between traditional rural lifestyles and the available alternatives in both rural and urban areas.

Broad estimates of the number of people affected can be derived from the information given in Section 4. This information is not however sufficient to allow a reliable estimate to be made of the cost of adequate mitigation. In order to develop an optimal balance between economic and other factors, more detailed research is needed. This should include a fuller evaluation of the environmental issues, as well the social and economic costs and benefits of alternative policies.

8.2. Impacts in Mediterranean Partner Countries

Because EU-MPC trade is a greater proportion of total MPC trade than it is of total EU trade, the potential impacts of the EMFTA tend to be greater in MPCs than in the EU. A range of parallel policy measures may be undertaken by MPCs, in order to mitigate adverse impacts and enhance beneficial ones. Additional action may be taken within the Euro-Mediterranean Partnership, to provide assistance and support to MPCs in implementing the necessary policies.

8.2.1. Mitigation of potentially adverse impacts

The most important needs for effective mitigation are to avoid:

- a significant rise in unemployment, particularly for liberalisation of EU-MPC trade in industrial products and agriculture, and to a lesser extent for services and south-south liberalisation;
- a fall in wage rates associated with increased unemployment;
- a significant loss in government revenues, with consequent social impacts through reduced expenditure on health, education and social support programmes;

- higher environmental and social stress in cities, resulting from declining rural employment and accelerated rural-urban migration;
- greater vulnerability of poor households to fluctuations in world market prices for basic foods;
- adverse effects on the status, living standards and health of rural women, associated with accelerated conversion from traditional to commercial agriculture;
- significant adverse local impacts on water resources, soil fertility and biodiversity in areas of high existing stress;
- higher air pollution and coastal water pollution from greater international transport;
- higher waste generation from greater use of packaging materials.

Many of these potential impacts would occur primarily in the short or medium term, which may be as long as ten to fifteen years over the full period of adjustment. Unless effective action is taken in the short term, some impacts may continue into the long term.

As with impacts in the EU, many of the adverse impacts can be mitigated by restricting the pace of liberalisation to allow other measures to take effect, or by limiting the extent of liberalisation, e.g. for sensitive products. Other necessary policy measures may include action by MPCs themselves, and supporting action by the EU through MEDA and other partnership programmes.

Economic measures

- To counter urban unemployment and associated impacts resulting from industrial liberalisation, MPCs may take direct measures to help industrial companies increase their competitiveness *vis a vis* European companies. Such measures would be broadly similar to those taken by Tunisia in its *mise à niveau* programme, adapted to local needs and to the lessons learned from experience with the Tunisian programme. They may for example include assistance to both large scale producers and SMEs to access appropriate information and funding for modernisation, schemes to facilitate the development of MPCs' internal supply chains, and initiatives to strengthen the responsiveness of education and training systems to changing private sector needs.
- Some of this assistance may be targeted specifically at those manufacturing sectors which offer the greatest potential for expanding employment opportunities, in order to counter the loss of employment in rural areas due to accelerated commercialisation of agriculture. Any such targeting should take account of the threats to textile industries arising from the ending of the Multi-Fibre Agreement, and of individual MPCs' potential comparative advantages and disadvantages in other manufacturing sectors.
- Measures to facilitate the transition to less labour-intensive but more economically competitive commercial agriculture need to be fully integrated with parallel measures to support the livelihoods of subsistence farmers during the period of transition. Both types of measure need to be sufficiently flexible to take account of expanding or contracting employment opportunities in other sectors of MPC economies. Facilitation measures such as land reforms, skills training and micro-credit schemes for small-scale farmers may be combined with initiatives to promote the development of rural industries and accelerate the creation of alternative sources of income in rural areas.
- Tax reforms may be implemented in parallel with trade liberalisation, sufficiently early to avoid any loss of government revenue. New tax systems need to be such that lower income groups are not disadvantaged compared with previous mechanisms, based on the experience of MPCs that have already introduced reforms.

Social measures

- Many of the potentially adverse social impacts of the EMFTA can be avoided through economic measures such as those discussed above. The effectiveness of such measures in avoiding adverse social impacts should be carefully monitored, such that they may be revised as necessary.

- Other measures which form part of a more general process of social development in MPCs would contribute to avoiding adverse impacts from the EMFTA. These may for example include measures for greater participation in decision-making by employers' organisations, trade unions, cooperative associations and other social economy institutions, expanded freedom of association and collective bargaining rights, and the introduction of stronger minimum wage policies in parallel with regulatory reforms to increase the flexibility labour markets.
- Specific policy measures to avoid potentially adverse impacts on women may include stronger labour standards for gender issues, for both agricultural and industrial employment.
- Provisions for food subsidies need to be reviewed and if necessary revised, in such a way as to buffer the greater vulnerability to world price fluctuations that is expected to result from agricultural liberalisation.

Environmental measures

- In some MPCs such as Israel and Tunisia, existing environmental regulation is sufficiently strong to counter most of the expected adverse impacts without extensive further development. In other MPCs many aspects of environmental regulation will need to be strengthened, particularly in relation to water resources, land use planning and controls, and protection of biological diversity.
- Knowledge is limited in most MPCs on the state of the environment, current trends and areas of stress. In order to be able to identify and respond to actual impacts, better information is needed on environmental baseline data, and monitoring systems need to be strengthened.
- In order to better integrate environmental factors into all policy measures designed to optimise the impacts of the EMFTA, greater use may be made of environmental economics techniques. Institutional capacity to use these techniques would benefit from further strengthening in most MPCs.
- Measures to reduce or avoid adverse impacts associated with production changes may include assistance to large and small companies in environmental management and cleaner production systems, and promotion of environmentally sound farming practices.
- Measures to counter the adverse impacts of increased transport may include the strengthening of environmental standards for marine transport and commercial vehicles.
- The expected increase in the use of packaging may be partially countered by recycling schemes, in order to minimise the necessary infrastructural investment in solid waste management.

There is potential for important EU support in several of these areas. This is discussed in Section 9.

8.2.2. Enhancement of potential benefits

Several of the policy measures discussed above for mitigation of adverse impacts may in parallel enhance beneficial ones, including, for example, measures to enhance the competitiveness of MPC industrial companies, and to facilitate the transition from traditional to commercial agriculture.

One of the main findings of the SIA study is that the potential economic benefits of the EMFTA on its own are relatively small, and that much larger benefits may be realised through fuller integration of MPC economies in conjunction with the EMFTA. The most effective enhancement measures would therefore relate to the broader aspects of regional integration.

In this context, consideration should be given to integration not only between MPCs, but with other countries in North Africa and East Asia that are not part of the EMFTA. The SIA study has not attempted to evaluate the complexities of achieving wider integration of this nature, but it indicates that continued efforts in this direction would offer large potential rewards. Further, linking wider integration to the EMFTA and to the other aspects of the Barcelona process would help to secure the

peace, stability and shared prosperity which the Euro-Mediterranean Partnership aims to achieve. The following are examples of policy measures which may be considered.

- Measures to maximise the benefits of regional trade may include cooperative investment in regional transport and other infrastructure.
- The development of integrated regional industrial and agricultural policies would enable greater advantage to be taken of economies of scale within the region, achieve greater synergy of development strategies, and enable a concerted approach to be taken to accelerating the economic and social development of the region.
- The potentially significant adverse employment effects of both EU-MPC trade liberalisation and south-south liberalisation may be considerably eased by regional cooperation to achieve a smooth transition to greater complementarity in agricultural and industrial production.
- In support of such policies, regional institutions may be created to undertake research into common issues of economic, social and environmental development, and contribute to the development of regional and national policy initiatives. Such institutions may for example contribute to developing a common system of rules of origin, and regional approaches to dismantling non-tariff barriers and the facilitation of regional trade.

9. Recommendations for institutional strengthening and capacity building

Many of the mitigation and enhancement measures discussed above cannot be satisfactorily implemented without significant strengthening of institutional capacity in MPCs. Support from the EU through the various initiatives of the Barcelona process would be particularly beneficial in the following areas.

- Support for collaborative research among all MPCs into the cost-effectiveness of past measures to enhance the competitiveness of MPC industrial companies, and of potential future ones.
- Support for detailed collaborative research involving both EU and MPC institutions into the economic, social and environmental impacts of agricultural liberalisation, in both MPCs and southern EU countries, taking account of the interactions. This may lead to coordinated policy responses, to achieve optimal outcomes for both the EU and partner countries.
- Assistance for schemes providing wider dissemination of information on EU product standards and other market access constraints and opportunities.
- Continued support for stronger environmental management in MPCs, targeted towards measures that are particularly relevant to EMFTA impacts. This may include strengthening institutional capacity for integrated economic, social and environmental planning, and integrated urban-rural and industrial-agricultural planning.
- Support for cooperative investment in regional transport and other infrastructure.
- Assistance with the development of integrated regional industrial and agricultural policies.
- Support for regional cooperation to achieve a smooth transition to greater complementarity in agricultural and industrial production.
- Assistance with the creation of regional institutions to undertake research into common issues of economic, social and environmental development.
- Coordination of all EU support within the Barcelona process towards common sustainable development objectives, through inter-agency screening of programme proposals against the priority actions defined in the Mediterranean Strategy for Sustainable Development (MSSD).
- The MSSD should itself be further developed to take account of continuing research into the economic, social and environmental impacts of greater regional integration.

10. Priority issues and economic sectors for Phase 3 studies

This section of the report identifies key economic sectors whose positive or negative impact on sustainability is most likely to be affected by the EMFTA, as priority areas to be considered for the selection of sectors that will be assessed in more detail during the 3rd Phase of the project. These more detailed assessments will be carried out at regional level, and where possible at the level of individual Euro-Mediterranean Partners or EU Member States.

The identification of priority areas is based on the likely significance of the sustainability impacts as assessed in this report. Consideration is given to economic, environmental and social impacts, both positive and negative. In general, the greater is the likely significance, the more necessary a detailed assessment is likely to be. This is especially so where more than one of the three types of impact are likely to be significant, and where these include potentially significant negative impacts.

The criteria applied in assessing the significance of potential impacts are:

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

In applying these significance criteria for the prioritisation of sectors, it is appropriate to include a relative scale dimension, for comparative purposes. For individual sub-sectors within each of the three main components of the EMFTA scenario (industrial products, agriculture, services, and south-south liberalisation), consideration has been given therefore to the magnitude of the expected change in trade volume in the sub-sector, as well as the potential impacts in each of the three sustainable development spheres. Broad estimates of these factors have been derived from the assessment, as shown in Table 19. The table identifies the priority areas to be considered for more detailed assessment.

Table 19. Priority areas for detailed SIA studies

Sector	Significance				Comments
	Economic	Social	Environmental	Trade volume	
Industrial					
Textiles	xx	xx	xx	xx	The textile industry is a major one in many MPCs, and can have significant environmental impacts. The EMFTA offers potential for increased production in MPCs, but needs to be considered alongside the effects of the end of the Multi-Fibre Agreement.
Transportation equipment	xx	xx	x	xx	This is a large sub-sector in trade volume, with relatively high trade barriers. It has a potentially high beneficial impact on sustainable development in MPCs, through its contribution to high added value employment and industrial-led growth.
Food and beverages	xx	xx	x	xx	The food processing industry offers strong potential for generating high value employment in rural areas.
Furniture and paper	x	x	x	x	The SIA indicates a significant change in production volumes and employment levels in this sector.
Chemicals, iron and steel	x	x	x	xx	These are important parts of the economy in some MPCs, and the SIA indicates significant changes in production in some cases.
Agriculture					
Fruits and vegetables	xx	xx	xx	xx	Large production changes are expected both in the EU and MPCs, with significant social and environmental effects.

Sector	Significance				Comments
	Economic	Social	Environmental	Trade volume	
Fish and seafood	xx	xx	xx	xx	Significant production changes are expected, with potential social and environmental impacts that are highly specific to the sector.
Olive oil	x	x	xx	x	This is an important industry in some MPCs and southern EU countries, with significant predicted production changes.
Cereals	xx	xx	x	xx	Cereals are a major staple food, with important economic, social and environmental effects. Production in MPCs is expected to fall, with complex short and long term impacts.
Livestock and dairy produce	x	x	xx	xx	Significant production changes are anticipated, with environmental impacts that are specific to the sector.
Services					
Transport	xx	x	xx	x	Transport services are a backbone service for economic development, with potentially large environmental impacts.
Telecommunications	xx	x	x	xx	Telecommunications are another backbone service. Environmental impacts are relatively small, but the sector has major potential for stimulating long term growth and social development.
Energy	x	xx	xx	x	The sector has an important influence on the rest of the economy, with potentially large efficiency improvements, and significant impacts in all three sustainable development spheres.
Financial	xx	x	x	xx	Financial services can make a major contribution to economic growth and poverty reduction, but liberalisation can have significant adverse effects if not accompanied by effective regulation.
Distribution	x	xx	x	x	The opportunities for liberalisation are large, and the sector has potentially significant social impacts.
Construction	xx	xx	x	x	The sector offers significant potential for growth of MPC service industry.
South-south					
All	xx	xx	xx	xx	All of the priority areas noted above are important for south-south liberalisation as well as EU-MPC liberalisation.
Transport and other infrastructure	xx	x	xx	x	Cooperative regional investment in transport and other infrastructure offers considerable potential for enhancing the economic and other benefits of the EMFTA.
Industrial and agricultural policy	xx	xx	xx	xx	Regional cooperation on the development of industrial and agricultural policy offers major potential for enhancing the benefits of the EMFTA, and for avoiding or minimising the potentially adverse impacts of greatest concern.

xx: high significance
x: medium significance

Following public consultation on a preliminary draft of this report and discussion with the European Commission's Steering Committee for the project, it is proposed that the 3rd Phase of the project should focus on the following issues and sectors:

- Environment-related aspects (including water resources, environmental services and convergence of standards)
- Agriculture (with particular attention to small scale agriculture and the non-farm rural sector)
- Tax reform
- Urban employment and industrial diversification

The particular significance of these four areas is discussed in Annex 3.

When the areas for detailed SIA study in Phase Three have been confirmed, a limited number of individual countries may be selected for case studies. It is proposed that this selection be based on the criteria given in Table 20.

Table 20. Criteria to be used in the selection of countries for case studies in detailed SIAs

1.	<i>The part of the region to which the country belongs</i>	Consideration should be given to selecting at least one case study from each of the following areas: the Maghreb; the Mashreq; southern EU countries.
2.	<i>Trade structure of the country</i>	For example, a high level of export or import dependence in the sector could be considered a relevant consideration.
3.	<i>Vulnerability to changes in trade impacts</i>	A high incidence of poverty, low per capita income, small size of country, and high level exposure to environmental risk could be relevant selection criteria.
4.	<i>Data availability</i>	Relevant trade impact studies, already completed, ready access to relevant data, expert and stakeholder opinion, could be relevant criteria.
5.	<i>Overall feasibility</i>	The total number of country studies required should be commensurate with the time, resources etc. available and the other demands of the Phase Three studies.

References

- Abed, G.T (1998), “Trade liberalization and Tax Reform in the Southern Mediterranean Region”, IMF Working Paper 98/49.
- Adams, Richard (1991) “The Effects of International Remittances on Poverty, Inequality and Development in Rural Egypt. Research Report 86.
- Adelphi Consult (2003) Etude d'évaluation des impacts des accords de libre échange sur la qualité de l'environnement au Maroc, GTZ Programme de Gestion et d Protection de l'Environnement, Rabat, Morocco
- Al-Trash, H. and T. Yousef (2000) ‘Intra-Arab Trade: Is it Too Little?’ IMF working paper WP/00/10
- Arkell J and Johnson M (2005) Sustainability Impact Assessment of Proposed WTO Negotiations: Final Report for the Distribution Services Study, International Trade and Services Policy and University of Manchester
- Audley JJ., Papademetriou DG, Polaski S and Vaughan S (2003) NAFTA's Promise and Reality: Lessons from Mexico for the Hemisphere, Carnegie Endowment for International Peace, Washington DC
- Augier P, Gasiorek M and Lai-Tong C (2003) The EU-Med partnership, the textile industry, and rules of origin, Femise
- Bayar Ali, Ghazi Ben-Ahmed and Raed Safadi (2003), WTO Negotiations and the MENA Region: A Preliminary Appraisal, EcoMod Network and Free University of Brussels, OECD
- Ben Zid (2004) Private communication
- Bibi S (2001) Comparing effects of general subsidies and targeted transfers on poverty: robustness analysis using data set from Tunisia. Economic Research Forum for the Arab Countries, Iran and Turkey (ERF), Egypt. Working Paper 0125.
- Bisset R, Flint D, Kirkpatrick C, Mitlin D and Westlake K (2003) Sustainability Impact Assessment of Proposed WTO Negotiations: Environmental Services, Impact Assessment Research Centre, University of Manchester
- Brownbridge M and Kirkpatrick C (2002) ‘Financial Regulation and Supervision in Developing Countries’ Development and Policy Review 20 (3)
- CAWTAR (2001) Arab Women's Development Report 2001: Globalization and Gender: Economic Participation of Arab Women, Centre of Arab Women for Training and Research, Tunis
- CEC (2004) European Neighbourhood Policy Country Report for Tunisia COM(2004)373 SEC(2004) 570 Commission of the European Communities, Brussels
- Chaherli, Nabil and El Said, Moataz (2000) “The WTO and MENA Agriculture”. Economic Research Forum for the Arab Countries, Iran and Turkey and The World Bank. The Third Mediterranean Development Forum (MDF3) “Voices for Change, Partners for Prosperity”. Global Trade and Regionalism Workshop.
- Department of Statistics (2003) Annual Report of Employment and Unemployment Survey 2004, The Hashemite Kingdom of Jordan Department of Statistics, http://www.dos.gov.jo/sdb_pop/unempl/y2004/emp_unemp7.7_7.e.htm
- Dihel, N., (2002) Quantification of costs to national welfare from barriers to services trade: a literature review, OECD – Trade Committee, TD/TC/WP(2000)24/FINAL
- Economic Research Forum for Arab Countries, Iran and Turkey (2002) “Economic Trends in the MENA Region”.

Economic Research Forum for Arab Countries, Iran and Turkey (2004) "Egypt Country Profile. The Road Ahead for Egypt". FEMISE coordinators. Published with the financial support of the European Commission Arab Fund for Economic and Social Development under FEMISE II programme.

Egypt (official data): "Statistics & studies: Population & labor" searchable database, held by the Central Agency for Public Mobilization and Statistics (CAPMAS), http://www.capmas.gov.eg/eng_ver/statistic.htm

El Hedi Lahouel (2001) 'Foreign Direct Investment, The European Mediterranean Agreements and Integration between Middle East and North African Countries'; chapter 4 in S. Dessus, J. Devlin and R. Safadi, Towards Arab and Euro-Med Regional Integration, OECD, ERF and World Bank.

ESCWA (2005) Survey of Economic and Social Developments in the ESCWA Region 2005, United Nations Economic and Social Commission for Western Asia, Beirut

ESMED (2003) Social Economy in the Barcelona Process, Euro-Mediterranean Social Economy Network, Madrid

Euromed (2005) Communication from the Commission to the Council and the European Parliament, Euromed Report 89.

European Commission (2004) "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. The Social Dimensions of Globalisation – the EU's Policy Contribution on Extending the Benefits to All". Brussels, 18.5.2004. COM(2004) final.

Femise (2002) 'The FEMISE report on the evolution of the structure of trade and investments between the European Union and the Mediterranean partners'.

Francois J., H. van Meijl, F. van Tongeren (2003), "Trade Liberalization and Developing Countries under the Doha Round", CEPR, Discussion Paper No. 4032, August 2003, [or Francois J., H. van Meijl, F. van Tongeren (2003), Economic Implications of Trade Liberalization Under the Doha Round, CEPII, Working Paper No 20 December 2003]

Francois J (2003), Accession of Turkey to the EU: Implications for the Transport Sector, Tinbergen Institute and CEPR, May 2003

Friends of the Earth Middle-East (2000) Environmental Impacts of a Euro-Mediterranean Free Trade Zone: Case Studies and Assessments, Friends of the Earth Middle-East, Amman, Jordan.

Gadir Ali, Ali Abdel (2002) "Globalization and Inequality in the Arab Region". Arab Planning Institute Kuwait.

George, C. and C. Kirkpatrick (2003), 'Sustainability Impact Assessment of Proposed WTO negotiations', IDPM, University of Manchester.

George C and Kirkpatrick C (2004) 'Trade and Development: Assessing the Impact of Trade Liberalisation on Sustainable Development' Journal of World Trade, 38,3,pp441-469

Grossman P (2002) The Effects of Free Trade on Development, Democracy and Environmental Protection, Sociological Enquiry 72:1 pp131-150

Hamoudeh, M. (2002) 'The Aghadir Process', presentation at the Mediterranean Academy of Diplomatic Studies, University of Malta, 4-6 May 2002.

Handoussa H and Reiffers JL (2001) Femise Report on the Evolution of the Structure of Trade and Investment Between the European Union and its Mediterranean Partners, Femise

Handoussa H and Reiffers JL (2002) Femise Annual Report 2002 on the Euro- Mediterranean Partnership, Femise

Harrison, Ann; Revenga, Ana (1995) "The Effects of Trade Policy Reform: What Do We Really Know?". NBER Working Paper No. 5225.

- Harrison, Ann and Hanson, Gordon (1999) "Who Gains from Trade Reform? Some Remaining Puzzles." NBER Working Paper No 6915. *Journal of Development Economics*, Vol. 51 (1999): 315-324.
- Hilary J (2002) *Trade Liberalisation, Poverty And The WTO: Assessing The Realities*. Paper presented at conference on *The WTO and Developing Countries*, 13 September 2002, King's College, London
- Hodge J (2002) *Liberalization of Trade in Services in Developing Countries*, in Hoekman B et al (eds) *Development, Trade and the WTO: a Handbook*, World Bank, Washington DC
- Hoekman B and Konan D (1999) *Deep integration, nondiscrimination and Euro-Mediterranean free trade* World Bank Working Paper 2130
- IARC (2004) *Sustainability Impact Assessment Study of the Euro-Mediterranean Free Trade Area: SIA Methodology. Final Report on Phase 1 of the SIA-EMFTA Project*, Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester
- IARC (2005a) *The Evolving Economic, Social and Environmental Conditions in Mediterranean Partner Countries. First Report on Phase 2 of the SIA-EMFTA Project*, Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester
- IARC (2005b) *Scenarios for Trade Integration Between the EU and Mediterranean Partner Countries. Interim Report on Phase 2 of the SIA-EMFTA Project*, Impact Assessment Research Centre, Institute for Development Policy and Management, University of Manchester
- Institute of Statistics (2003) *Turkey State Institute of Statistics*, http://lmisnt.pub.die.gov.tr/die/plsql/lmwebeng.lmwebform_eng
- Israel (official data): "Labour Force Quarterly Statistics" held by the Central Bureau of Statistics, http://www1.cbs.gov.il/reader/y_labor/lmenu_e.htm
- Jaumotte, F. (2004), "Foreign Direct Investment and Regional Trade Agreements: The Market Size Effect Revisited.", IMF working paper 04/206.
- Jomini, P., Verikia, G. and Zhang, X (2002). 'Quantifying the Effects of Liberalising Services: the Experience of the Australian Productivity Commission', paper presented at OECD, World Bank Services Experts Meeting, Paris, 4-5 March 2002.
- Jordan (official data): "Annual Report Of Employment and Unemployment Survey 2004" held by the Hashemite Kingdom of Jordan Department of Statistics (DOS), http://www.dos.gov.jo/sdb_pop/sdb_pop_e/inde_o.htm
- Kinuthia J (2002) *Trading in Healthcare Services in Kenya, are we prepared? Case study on the implications of committing healthcare services in Kenya under GATS*, Consumer Information Network Kenya, Nairobi, Kenya
- Kirkpatrick C and Parker D (2005) 'Regulation and the Privatisation of Water Services in Developing Countries: Assessing the Impact of the General Agreement on Trade in Services (GATS)' *World Economy*, forthcoming
- Kirkpatrick C, Parker D and Zhang YF (2005) 'State versus Private Sector Provision of Water Services in Africa: A Statistical, DEA and Stochastic Cost Frontier Analysis' *World Bank Economic Review*, forthcoming
- Kuiper (2004), *Fifty Ways to Leave Your Protection: comparing applied models of the Euro-Mediterranean Association Agreements* ENARPRI Working paper 6
- LABORSTA database (Yearly data and SEGREGAT), maintained by the International Labour Office (ILO) Bureau of Statistics, available at <http://laborsta.ilo.org/>
- Lebanon (official data): "Recent Statistics" held by the Central Administration for Statistics, http://www.cas.gov.lb/addsearch_en.asp

- Lofgren Hans, Moataz El-Said and Sherman Robinson (1999b), "Trade Liberalization, Transfers and Skill Upgrading in Morocco: Dynamic General Equilibrium Analysis", IFPRI International Food Policy Research Institute, in Topics in Middle Eastern and North African Economies, electronic journal, Volume 1, Middle East Economic Association and Loyola University Chicago, September 1999. <http://www.luc.edu/publications/academic/> same as "Trade Liberalisation and the poor: ... published in Dessus, Devlin, Safadi (Eds), Towards Arab and Euro-Med Regional Integration, pp. 129-145, Paris. OECD.
- Lofgren, Hans (1999a), "Trade Reform and the Poor in Morocco: A Rural-Urban General Equilibrium Analysis of Reduced Protection", TMD Discussion Paper No. 38, Trade and Macroeconomic Division, International Food Policy Research Institute, Washington, D.D., January 1999
- Manarious G and Mehyar M (2004) An Overview of the Impact of Trade Liberalization on the Agricultural Sector in Egypt: Case Study of the Cereal Sector and Cereal Dumping in Egypt, Friends of the Earth Middle East, Bethlehem and Amman
- Martin, I. (2004), "The Social Impact of Euro-Mediterranean Free Trade Areas: A First Approach with Special Reference to the Case of Morocco", Mediterranean Politics, 9, pp. 422-458.
- Mattoo, A., R. Rathindran and A. Subramanian (2001), "Measuring Services Trade Liberalization and Its Impact on Economic Growth: An illustration", World Bank working paper, August 2001.
- Montgomery Watson Harza (2004) "Evaluation of EC Country Strategy for Egypt (2000-2006)". European Commission.
- Morocco (official data): "Activité, Emploi et Chômage en 2002: Rapport de Synthèse" held by Royaume du Maroc Haut Commissariat au Plan, Direction de la Statistique, available at <http://www.statistic-hcp.ma/emploi.html>
- Muaz S et al (2004) The Impact of Euro-Mediterranean Partnership on the Agricultural Sectors of Jordan, Palestine, Syria, Lebanon and Egypt (The Case of Horticultural Exports to EU Markets), Femise
- Müller-Jentsch, D. (2003), "Economic Prospects for the Euro-Mediterranean Partnership: Deeper Integration and Trade in Service", paper in programme on Private Participation in Mediterranean Infrastructure, World Bank / European Commission.
- Nashashibi, K. (2002), "Fiscal Revenues in South Mediterranean Arab Countries: Vulnerabilities and Growth Potential", IMF Working Paper 02/67
- Nazneen, Kanji and Barrientos, Stephanie (2002) "Trade Liberalisation, Poverty and Livelihoods: Understanding the Linkages". A Review for the Africa Policy and Economics Department, Department for International Development, UK Government. IDS Working Paper 159.
- OECD (2002a), 'The Relationship between regional trade agreements and the multilateral trading system: Services', TD/TC/WP(2002)27/FINAL
- OECD (2002b), 'Quantification of costs to national welfare from barriers to services trade: a literature review', TD/TC/WP(2000)24/FINAL
- OECD (2003), 'Services Trade Liberalisation: Identifying Opportunities and Gains. Key Findings' TD/TC/WP(2003)25/FINAL.
- Oxfam International (2003) "The Euro-Mediterranean Agreements: Partnership or Penury?". Oxfam Briefing Paper.
- Oxfam International (2004) "Euro-Med: Seeds of a Raw Deal?" Oxfam Briefing Note.
- Ozler S, Yilmaz K and Taymaz E (2004) Labor Markets and Productivity in the Process of Globalization: Firm Level Evidence from Turkey, ERF Research Report 0403, Economic Research Forum for the Arab Countries, Iran and Turkey, Egypt.
- Palestinian Authority (official data): Palestinian Central Bureau of Statistics, <http://www.pcbs.org>

- Pangestu M (2002) Industrial Policy and Developing Countries, in Hoekman B et al (eds) Development, Trade and the WTO: a Handbook, World Bank, Washington DC
- Planistat (2002) Sustainability Impact Assessment (SIA) of the trade aspects of negotiations for an Association Agreement between the European Commission and Chile, Final Report, Planistat, Luxembourg
- Radwan S and Reiffers J-L (2005), The Euro-Mediterranean partnership, 10 years after Barcelona: achievements and perspectives, report, Femise.
- Saab N (2004) A Plan for Environmental Recovery, in Salam N (ed) Options for Lebanon, IB Tauris, Beirut
- Sideri S (2000) The Impact of EU's 'Partnership Initiative' on the Med Region: Dependent Development or Regional Integration? Femise
- Stiglitz J E (2002) Globalization and its Discontents, Penguin, London
- Syria (official data): "Statistical Abstract 2002" held by the Central Bureau of Statistics, <http://www.cbssyr.org/eindex.htm>
- Taylor J E (2002) Trade Integration and Rural Economies in Less Developed Countries: Lessons from Micro Economy-wide Models with Particular Attention to Mexico and Central America, University of California
- te Velde, D.W., S. Page and O. Morrissey (2004) 'Regional Integration and Poverty. Mapping the linkages', available from http://www.odi.org.uk/iedg/projects/ec_prep1.pdf
- Tunisia (official data): "Statistiques Economiques et Sociales de la Tunisie: Emploi et chômage", maintained by the Institut National de la Statistique, and available at http://www.ins.nat.tn/_private/idc/page01010.idc
- Turkey: "Employment Tables" maintained by Turkey's State Institute of Statistics, http://lmisnt.pub.die.gov.tr/die/plsql/lmwebeng.lmwebform_eng
- Tzannatos, Zafiris "Social Protection in the Middle East and North Africa: A Review. Chapter 5 in Handoussa, Heba and Tzannatos, Z (2002) "Employment Creation and Social Protection in the Middle East and North Africa". The American University in Cairo Press in association with the Economic Research Forum for Arab Countries, Iran and Turkey. The International Bank for Reconstruction and Development / The World Bank.
- UNCTAD (1997) International Trade in Health Services: Difficulties and Opportunities for Developing Countries TD/B/COM.1/EM.1/2 UNCTAD, Geneva
- UNDP (2000) Overcoming Human Poverty: UNDP Poverty Report 2000, UNDP New York
- UNDP (2002) Arab Human Development Report 2002 UNDP New York (prepared in collaboration with the Arab Fund for Economic and Social Development)
- UNDP (2003) Making Global Trade Work for People, Earthscan, London
- UNDP (2005) Arab Human Development Report 2004 UNDP New York (prepared in collaboration with the Arab Fund for Economic and Social Development and the Arab Gulf Programme for United Nations Development Organisations)
- UNECA (2004) Economic Report on Africa 2004: Unlocking Africa's Trade Potential in the Global Economy, E/ECA/CM.37/6, UN Economic Commission for Africa, Kampala
- UNEP (2001) Reference Manual for the Integrated Assessment of Trade-related Policies, Economics and Trade Branch, UNEP, Geneva
- UNEP (2005) Handbook on Integrated Assessment of Trade-related Measures: The Agriculture Sector, Economics and Trade Branch, UNEP, Geneva

- UNEP/IISD (2000) Environment and Trade – a Handbook UNEP, Geneva, International Institute for Sustainable Development, Winnipeg
- UNEP/MAP (2005) Mediterranean Strategy For Sustainable Development, UNEP(DEC)/MED WG. 277/4, United Nations Environment Programme Mediterranean Action Plan, Athens
- UNIDO (2002) Industrial Development Report 2002/2003, United Nations Industrial Development Organization, New York
- UNRISD (2005) Gender Equality: Striving for Justice in an Unequal World, United Nations Research Institute for Social Development, Geneva
- United Nations (1992) The Rio Declaration on Environment and Development A/CONF.151/5/Rev.1, United Nations, New York
- United Nations (1999) World Survey on the Role of Women in Development: Globalization, Gender and Work 1999, United Nations, New York
- van Liemt G (2001) Some Social and Welfare Aspects of International Trade EU-LDC Network, www.eu-ldc.org
- Winters, L.A. (2002) , ‘The Economic Implications of Liberalising Mode 4 Trade’ , paper prepared for the joint WTO-World Bank symposium on ‘The movement of natural persons (mode 4) under the GATS’ , WTO, Geneva, 11-12 April 2002
- World Bank (2001) Finance for Growth: Policy Choices in a Volatile World, World Bank, Washington DC
- World Bank (2002) Global Economic Prospects and the Developing Countries 2002: Making Trade Work for the World’s Poor. World Bank, Washington DC.
- World Bank (2003), Trade, Investment, and the Development in the Middle East and North Africa, World Bank: Washington DC
- World Bank (2003a) Gender and Development in the Middle East and North Africa: Women and the Public Sphere, World Bank, Washington DC
- World Bank (2004) Report No. 28791-TUN Country Assistance Strategy for The Republic of Tunisia, World Bank, Washington DC.
- World Bank (2004) World Development Report 2005, Washington, World Bank.
- WTO (2000) Communication from the European Communities and their Member States, Professional Services S/CSS/W/33, World Trade Organisation, Geneva
- WTO (2002a) Communication from Thailand: Assessment of Trade in Services TN/S/W/4, WTO Geneva
- WTO (2000b) Communication from the European Communities and their Member States, Environmental Services S/CSS/W/38, World Trade Organisation, Geneva
- Zarrouk, J. and F. Zallio (2000) ‘Integrating Free Trade Agreements’.

Annex 1. Contributions from consultation

The comments and contributions received in the consultation with civil society are summarised in Table A1. All have been taken into account in the SIA as far as practicable.

Table A1. Civil society contributions to consultation process

Contributor	Contribution
Friends of the Earth Europe	FoEME report on environmental review of EMFTA
Friends of the Earth Mednet	Participation in study
Oxfam International	Concerns about rural poor.
Oxfam International	Oxfam briefing papers on the Euro-Med agreements
Toon Poppe, Belgium	Information on econometric simulation model.
Vanya Walker-Leigh, Malta	Numerous contacts provided for consultation.
Vanya Walker-Leigh, Malta	Details of relevant reports and guidance given on gender issues.
Friends of the Earth Middle East	Stakeholder participation
Vanya Walker-Leigh, Malta	Copy of journal Sustainable Mediterranean
Adelphi Research, Berlin	Observations on institutional priorities in the region.
Adelphi Research, Berlin	Report on assessment of environmental impacts in Morocco of free trade agreements.
Euromediterranean Network of Social Economy (ESMED), Spain	Response to consultation questions asked on the project website. Key issues – job creation, investment, diversification. SIA analysis – analyse existing business structures and institutions. Consultation – ESMED network, Economic and Social Councils.
Euromediterranean Network of Social Economy (ESMED), Spain	ESMED report on Social Economy in the Barcelona Process.
Friends of the Earth Middle East,	Two reports: impact of trade liberalisation on agriculture in Egypt and Jordan.
International Federation of Agricultural Producers (IFAP), France	Information on current study of agriculture impacts.
UN University-CRIS, Belgium	Many useful contacts and sources of information given. Suggestions for integrating SIA findings into government strategies. Suggestions for the consultation process and for SIA analysis – e.g. analyse existing funding mechanisms, EU-Med transport strategy, provide statistics and raw data for other programmes, emphasise capacity building.
Euro Med Civil Forum, France	The assessments and consequent policy recommendations need to be conducted and assessed in consultation with the Southern Mediterranean partner countries and with civil society at regional and national level.
Rym Ben Zid, Tunisia	Information on agricultural impacts.
Konrad von Moltke	Links on website
Vanya Walker Leigh, Malta	Address gender issues, and rural women in particular
WIDE joint NGO statement, Belgium	1) SIA should begin at an early stage in order to inform negotiating positions 2) SIA should be fully integrated into the policy-making process 3) Enhance policy coherence and inter-service co-ordination 4) Increase stakeholder involvement in the process (particularly civil society and governments in the EU's trading partners) 5) Expand the roles of other EU institutions (European Parliament, Council, 133 Committee, Member States) Transparency
Ivan Martin, Spain	Papers on economic and social rights
RSPB and Birdlife International, UK	Position paper. Assessment should reflect the aims and targets of Rio Declaration of 1992, Millennium Development Goals etc. Impacts on poverty reduction, implementation of the principle of common but differentiated responsibilities,

Contributor	Contribution
	and environmental resource use and consumption. Consider direct and indirect impacts, influence of trade on the economy and public policy making. Consider longer-term global and local values of public goods, especially biodiversity. Ensure broad developing country involvement. Essential that country parliaments are involved. SIA should be developed and applied with support from international agencies and NGOs to draw on their technical experience. Participation at the national level should involve all stakeholders in governments and in society, with widespread public involvement. Include cross-border impacts as well as influences on other countries. Avoid being prescriptive with respect to developing countries. Mechanism to ensure that the results of SIAs are taken into account in decision making. Important that recommendations are clear and capable of quick translation by even resource-constrained developing countries.
World Bank, Marseilles	Information on governance programme
Tuscany regional administration, Italy	Local sustainable development
TAPRI, Finland	Suggested reports and consultation. Survival of local domestic enterprises.
Association AZIR pour la protection de l'Environnement, Morocco	Environmental impacts in Morocco
SMAP, Italy	Coordination with SMAP programme
Sustainable Design International Ltd, UK	Numerous issues of social and environmental sustainability.
Delegates at public meeting Brussels, 24.11.2004	<i>Meeting attended by 51 participants, including 32 regional delegates</i>
	There is insufficient linkage in the methodology to the Mediterranean Strategy for Sustainable Development
	There should be a non-liberalisation scenario
	Reference is made to potential gains in economic welfare without defining the term
	Secondary as well as primary impacts should be assessed
	The study should make contact with FAO regional offices in Cairo and Tunisia, including work on the Johannesburg Plan of Implementation
	Impacts on rural livelihoods should be assessed, with particular emphasis on the effects on women in rural areas.
	The indicators used in the SIA should place more emphasis on: water resource issues solid waste gender impacts measures of initiatives to strengthen people's representation.
	Indicators should serve not only for follow-up monitoring, but to identify impacts that should be evaluated.
	The SIA should include a review of the relationships between the Barcelona Process and the New Neighbourhood Initiative.
	The objectives of the study need to be made more explicit and more operational.
	Identify what countries want to achieve
	Quantify the results, for benefits and adverse impacts
	Present a timetable with deadlines and milestones for recommended reforms
	Assess the financial costs of recommended mitigation
	Identify where the money will come from
	Identify how the results can be integrated into existing programmes, such as countries' national sustainable development strategies and plans.
	The SIA should review the Euro-Mediterranean Partnership and Association Agreements themselves, rather than concentrating solely on flanking measures and mitigation. It should put forward proposals for correction, not just mitigation.
	The SIA should evaluate whether EMFTA achieves appropriate ends.
	Assess the impact of EU enlargement on the Mediterranean region.
A French language version of the Phase 1 report be prepared.	

Contributor	Contribution
	<p>Clarification was requested on whether the SIA will be a historical assessment of impacts or a forward looking assessment of ongoing trade measures.</p> <p>The SIA results should be made as easy as possible to adopt, by making the findings specific, and directly relevant to real situations.</p> <p>The SIA should make specific, tangible, precise proposals.</p> <p>The proposals should include recommendations for environmental and/or labour standards for traded products.</p> <p>The assessment should consider “technological sustainability”, in that mitigation measures should be financially and technologically feasible.</p> <p>The EU’s role in helping partner countries to upgrade to cleaner production technologies should be clarified, including the availability of subsidies.</p> <p>The SIA should evaluate the cost-effectiveness of proposed mitigation.</p> <p>Potential positive social impacts of liberalisation should be assessed, for example of EU agricultural liberalisation. Similarly, the potential negative social impacts of non-liberalisation should be assessed.</p> <p>The SIA should assess the social and environmental impacts that have already occurred from association agreements that have already been signed.</p> <p>The SIA should consider the impact on small and medium sized enterprises in partner countries.</p> <p>The impacts should be assessed in relation to those occurring in parallel from, for example, increasing competition from China.</p> <p>The SIA should avoid becoming a broad, general study, and focus on providing extra information and practical means of changing the situation.</p> <p>The SIA-EMFTA Newsletter should be published in Arabic.</p> <p>The SIA should serve as a risk assessment, in the sense of evaluating the magnitude of the risk of impacts occurring.</p> <p>Impacts on the competitiveness of businesses should be evaluated.</p> <p>Impact on foreign direct investment should be assessed.</p> <p>The impacts on the informal economy should be assessed, as well as on the formal economy.</p> <p>Social impacts to be assessed should include human rights (e.g. as defined by the ILO), working conditions, trade union representation in foreign owned companies, social expenditure (as affected by loss of tariff revenues) and differential gender effects.</p> <p>The importance of the presentational style was stressed. The reports should have a clear statement of operational objectives, to which the reader can relate the outputs of the study.</p> <p>A number of methodological challenges were highlighted, including, the distinction between causation and correlation, the limited availability of data at the sectoral level, the need to isolate the impact of the EMFTA from impacts due to non-EMFTA induced changes, the distinction between before- after and with-without scenarios, choice of selection criteria for groupings of countries</p> <p>Screening criteria for key sectors should include the importance of the sector to the countries themselves.</p> <p>Support to the SME sector should be considered as a potential mitigation measure.</p> <p>The study should draw on the existing evidence relating to the adjustment costs of structural adjustments programmes in the region, and should allow for the intersectoral effects of trade liberalisation</p> <p>The Euro-Mediterranean Heritage Programme should be included in the list of agreements relevant to the SIA EMFTA study.</p>
<p>Delegates at consultation meeting, ERF Annual Conference, Beirut, 13 December 2004</p>	<p><i>Meeting attended by 35 regional participants.</i></p> <p>It was noted that trade-offs between economic, social and environmental impacts would not be evaluated within the SIA.</p> <p>The SIA should consider the capacity of communities and other stakeholders to adapt to potential impacts, and make appropriate recommendations.</p> <p>The study should identify winners and losers in the distribution of costs and benefits of</p>

Contributor	Contribution
	the EMFTA.
	Would the study assess the impact in the region of the end of the Multi-Fibre Agreement?
	Where there are conflicts between EU goals and those of partner countries, would the study make recommendations on EU policy decisions?
	Would the SIA assess the effects of south-south trade liberalisation?
	The study should draw lessons on impacts which have already occurred in countries with well established Association Agreements (e.g. Tunisia), to assist those at an earlier stage (e.g. Syria).
	Would the study make recommendations on institutional development that may be needed in order to make the EMFTA and EMP a reality?
	The study should co-ordinate with parallel studies being undertaken on impacts in individual countries.
	Would the SIA include a case study for Syria? This cannot be answered until the end of Phase 2. The case studies that will be carried out in Phase 3 would be chosen during Phase 2, according to the significance of potential impacts, and gaps in existing knowledge.
	An additional meeting was requested, particularly for private sector representatives, to give them time to digest the information provided and make fuller comments.
	The list of consultees in Annex 1 of the Phase 1 report did not include enough industrialists in the region.
	The nine indicators proposed in the Phase 1 report should be expanded.
	The impacts already experienced in Lebanon from reducing textile tariffs should be used in the study.
	The study refers to the EMFTA as a single free trade area, but is it in reality a set of distinct bilateral agreements?
	Does the study cover only the EMFTA, or does it also include other aspects of the Euro-Mediterranean Partnership?
	In its discussion of the EMP, the report refers to safety issues. Does this mean security issues, such as in relation to the Israel-Palestine situation?
	Will evaluation units be established in each country to monitor the actual impacts?
	Are there plans to undertake specific SIA studies at the national level?
	How will non-tariff measures be analysed?
	The baseline will be different in different countries, according to when Association Agreements come into effect.
	Will the baseline for the study include US policy in the region?
	Will the SIA evaluate potential impacts on exchange rates and financial stability?
Delegates at MSSD civil society meeting, Rome, 11-12 March 2005	Criteria in selecting participating ngos in the study
	The time frame of the study seems too long and no results of the study will be reached before finalizing the MSSD and use it as input
	Will the study take into account the MSSD objectives?
	Will the study draw from the lessons learnt in the implementation of the NAFTA agreement?
	Organize a consultation workshop with NGOs to discuss the SIA in more detail from the perspective of civil society
	Take into account the precautionary principle and common but differentiated responsibilities
Vanya Walker Leigh, Malta	Information sources
Thomas Ruddy, Switzerland	Paper on governance issues

Contributor	Contribution
CAWTAR, Tunisia	Copy of Arab Women's Development Report
Najib Saab, Lebanon	Suggestions for monitoring and allowable limits
Consumers Lebanon	Consumer protection in Lebanon
Joint NGO comments, regional	Many suggestions, including integration of environment into sectoral programmes, consumption patterns, links with MSSD, scenarios, cost-benefit analysis, lessons from NAFTA, detail of impact prediction, climate change, Arabic version of newsletter
SOLIDAR	Gender issues, UNRISD report
Vanya Walker Leigh, Malta	Social impacts, agriculture reports
Karin Alleweldt	Impacts on social dialogue and collective bargaining
SMAP RMSU	Collaboration
Israeli Ministry of Industry, Trade and Labour	Corrections to Baseline Report
Vanya Walker Leigh, Malta	Comments and suggestions on Baseline report
David Hammerstein, MEP	Environmental issues (water usage etc.)

Annex 2. Economic models of the Euro-Mediterranean Free Trade Area

(Prepared by Sergio Alessandrini and Dirk Willem te Velde)

The following discussion is based on a detailed examination of the results of nearly 80 studies using CGE and other economic models to assess the effects of EMFTA on individual countries. These are listed at the end of this Annex. We have avoided comparison among different types of models (static, dynamic), their structure, size and calibration. On these aspects, Kuiper (2004) provides an exhaustive review.

The results cannot be compared precisely because the models differ somewhat in conceptual structure and the computational scenarios are not uniform. They do however give an indication of potential impacts in a range of varying circumstances.

The studies consider:

- Elimination of tariff barriers on industrial and/or agricultural products.
- Removal of non-tariff barriers and harmonisation of quality standards.
- Extending market access to agricultural and textile products.
- Effects on competition.
- Including capital mobility and openness to FDI.
- Liberalisation of services.

The main criteria for analysis and comparison are:

Impact on domestic prices and imports

The initial impact of the elimination of tariffs on EU imports is a cheapening of import costs and an overall deflation of the domestic price level. The size of the impact is directly related to the level of effective protection (level of nominal tariffs) and the share of imports from the EU. As imports and domestic products are imperfect substitutes, domestic demand switches from domestic products to EU imports (direct effect on trade). Imports increase and, the more they compete with domestic products, the more the domestic prices of domestic products fall. The reduction of prices increases the consumer surplus and therefore the overall welfare. However, in dealing with Mediterranean countries we should consider market imperfections, such as the oligopolistic structure of imports, the market power of importers and the price rigidities of domestic demand. Therefore the tariff reduction does not imply an automatic and/or one to one transfer to domestic prices, being absorbed by rents and mark-up of the importers.

Secondly, decreasing import prices and domestic prices reduce the costs of intermediates and increase demand of consumers and enterprises. Lower cost of production will therefore increase local competitiveness and exports (indirect effect on trade).

Impact on consumption and investment

The decline of the domestic price level leads to an intertemporal substitution of today's consumption in favour of current investment. Thus, current consumption declines allowing savings and investment to expand and boost the growth of output and income.

Impact on exchange rate

The EU agreement also influences the real exchange rate, defined as the change in the home price index sufficient to maintain a constant current-account deficit, taking world prices as given. Thus, a

rise in the real exchange rate is consistent with a depreciation of the domestic currency, in that the price of foreign exchange rises. In the case of the EU agreement, the real exchange rate increases.

Impact on Trade Balance

Trade balance can run into deficit as a consequence of the increase of imports unless they will be compensated by growing exports. Therefore the initial excess demand for foreign currencies will induce the national currency to depreciate. Preferential tariff reductions implied by the EMFTA will have two effects. First, high-cost domestic production would be replaced with purchases from relatively lower cost producers in EU countries – trade creation. The loss in tariff revenue is compensated by lower import prices which increase domestic demand and welfare. In addition there is scope for trade creation in the ability of the country to increase its exports; the revenues from increased exports can be spent on imports. Second, members would import more products from firms located in the relatively expensive European countries, rather than from cheaper, non-EU suppliers – trade diversion. This trade diversion is experienced as a loss in tariff revenue on imports from non-EU trading partners. Thus, EMFTA may raise or lower national welfare.

Impact on income distribution

In terms of income distribution we expect that the EU agreement benefits the abundant factor of production, that is labour, at the expense of the owners of relatively scarce capital, whose returns must fall.

Impact on welfare

In terms of welfare we have two effects. The first depend on the allocative effects produced by the fall of domestic prices and the shift of production. The second will depend on the terms of trade and the impact on balance of trade. A negative effect on welfare, generally associated with the deterioration of the trade account, means that trade diversion dominates trade creation. This was found by Brown et al. (1997) for the short run for Tunisia, and by Dessus and Suwa-Eisenmann (1998) in a single estimate for Egypt. However, the majority of other estimates for these two countries as well as for Morocco and Turkey, show welfare gains, so there is not a consensus that trade diversion necessarily dominates in the Mediterranean region. Second, the trade diversion effect is usually associated with ‘shallow integration’, but when considering harmonisation of standards, extension to NTB and services, and labour mobility, the trade creation effect prevails with the allocative effects. Even if it does dominate in the short run, the studies also tend to suggest that the Mediterranean countries are able to adjust more completely over time, so that trade creation will eventually come to dominate trade diversion, and countries will then benefit from the trade effects of the EMFTA.

Other CGE models provide the inclusion of additional determinants of welfare under assumptions of increasing returns of scale, differentiation of product and pre-competitive behaviour of domestic firms in a preferential free trade agreement, such as the role of scale economies, investment, and dynamic effects. All of these contribute to increase the role of allocative effects in enhancing welfare.

We summarise the results for each country in turn below.

Tunisia

CGE models for the analysis of EMFTA in Tunisia provide results for scenarios involving elimination of Tunisian tariffs and NTBs on imports from the EU, improved access of Tunisian agricultural exports to the EU, harmonization of standards, and improvements in the efficiency of trade-related activities. There is a general consensus that the welfare effects are positive, ranging from 1 to 6 percent, though there is one study that predicts welfare losses.

Several CGE studies consider the impact of a reduction of tariffs on manufactured products. The impact on welfare in the short run is mixed since the estimates are in the range of -1.2 to 1.6 percent of GDP.

Rutherford *et al.* estimate that a FTA between Tunisia and the EU would increase Tunisian welfare by 3.1 percent in the short run, when capital is tied to specific sectors, and 4.6 percent in the long run when capital is perfectly mobile. For Tunisia, gains arise from the reduction in administrative barriers and harmonisation of technical standards. The positive effects are reflected in increases in real wages and in the return to capital.

Brown *et al.* are less optimistic and conclude that welfare effects range between -0.1 and 1.0 per cent. These results reflect a worsening in the terms of trade. With mobile capital, however, there is still a 3.3 percent increase in welfare, pointing to the importance of intersectoral movements of labour and capital.

Other, larger welfare effects are estimated by Bayar with welfare gains over 5 percent. The results indicate that manufacturing is the main beneficiary, with output expansion over 20-25 percent in machinery, electronic and metal products, in addition to textile and clothing. According to Bayar, EMFTA is harmful for agriculture and services in the long-run, as they are primary factor intensive and the cost of the latter expands, and because the food processing, wood and paper, and beverage and tobacco sectors are related to agriculture, they might lose as well. Augier and Gasiorek (2001) find that all manufacturing sectors will expand production in the long run, except iron and steel, wood and furniture, electric machinery and transport equipment. The largest expansion is in clothing and textiles, the largest Tunisian manufacturing sector, and the chemicals and non ferrous metals.

The possibility of trade diversion appeared not significant. The export performance helps improve the trade balance and the real effective exchange rate tends to appreciate. Most studies do not account for fiscal effects or compensation mechanisms for the reduction of tariff revenues. There may be negative impacts on public expenditure and growth, though they may not be large. Marouani (2004) includes fiscal compensation and shows that it would change marginally the effects on welfare, albeit with significant effects on long run growth. Considering the openness of the Tunisian economy towards the EU, more than 70% of its imports, the government revenues losses can be substantial.

Egypt

Most modelling exercises find positive effects of trade liberalisation on welfare in Egypt, ranging from 1 to more than 20 percent. Simple integration and EMFTA lead to lower welfare and output effects in the range of 1-3 percent increase. Konan and Maskus (1997) estimate a 2.7 per cent increase in welfare in the case of unilateral liberalisation against all trading partners, including allowance for the lowering of red-tape costs of imports. The EMFTA scenario that involves both the removal of tariffs and NTBs and the lowering of red-tape costs leads to a welfare gain of 1.9 percent. MFN liberalisation leads to higher welfare effects, as there might be trade diversion effects from EMFTA. A scenario that includes an increase in EU financial transfers and improved market access in the EU for Egyptian manufactured exports generates a welfare increase of 0.5%. A simple scenario of elimination of tariffs on EU imports (our EMFTA scenario of interest) combined with better access to agricultural and textiles in EU markets results in a welfare gain of 0.2 percent of GDP. Others, such as Konan (2001), also report weak welfare results which may reflect the impact of trade diversion.

In the EMFTA scenario of tariff liberalisation on agriculture and industrial products, Bayar (2001) shows that the largest increases in production occur in garments, other machinery, other manufactures, and other services sectors. A number of sectors, like minerals and the agriculture sector, lag behind as the economy shifts more towards manufacturing production. At the same time, some manufacturing sectors, especially transportation equipment, machinery, components and wood and paper, suffer by the expansion in a growing supply from trading partners. Free trade scenarios will affect the transportation sector significantly through an increase in transport equipment imports from the EU.

The positive production effects are not shared by all authors. Augier and Gasiorek (2001) find significant losses for many sectors, though food, textiles and chemicals may still benefit in some scenarios.

Jordan

Jordan is less well integrated with the EU, and has lower tariffs, so we expect smaller effects. Indeed, the welfare effects of EU FTA are very marginal, in the range of 0.1 to 1.7 percent of GDP. Estimates at the lower end of the range consider the case when a fall of household income is not compensated by government transfers due to loss in tariff revenues, while those at the top end of the range do consider the compensation of lost tariffs with an increase in VAT.

Despite low welfare effects, the effects on trade can be large. Under the scenarios examined by Feraboli (2003a), the imports from the EU rise by 26.2 percent and other imports by 12.7 percent. As expected and found in CGEs for other models, the increase in GDP is larger in the case of multilateral liberalisation than in the case of EMFTA. Exports of chemicals, textiles and agricultural product would increase most. Feraboli (2003b) finds that domestic output will increase in the long run by 13 percent with a major shift towards the manufacturing sector. Incomes will increase by around 12-13 percent.

Lucke (2001) considers elimination of tariffs on EU manufacturing imports. Real GDP decreases by 0.2 percent. The trade account deteriorates because import volumes grow faster (3.9%) than exports (1.3%). Despite low overall effects on real GDP, there are large variations across sectors. The main gainers in output are expected to be textiles (+4.8%) and chemicals (+2.6%), while the losers include rubber (-0.3), metals (-0.3%) and government services (-5.1%). Value added decreases also in construction. Textile and chemicals are the main gainers in terms of exports. On the other hand, since manufacturing of rubber and other non metallic minerals and manufacturing of base metals and fabricated metal depend heavily on the demand of the construction sector, value added of those declines as well.

The effect of EMFTA on average wages is positive but insignificant, while the return on capital increases by 9% in textiles and 5.8% in chemicals. The price increasing effect of higher factor costs is in most sectors offset by the price lowering effects of cheaper intermediate inputs and stronger competition between imports and domestic goods.

Morocco

The EMFTA scenario results in a welfare increase in Morocco (some suggest 1.5 percent). Full multilateral liberalisation increases welfare by an additional 0.7 percent. All studies show that imports and exports grow faster than GDP and incomes, so that the Moroccan economy is gradually becoming more open. Exports grow faster than import in all scenarios, so the trade deficit decreases. Imports of manufactured products from EU would increase rapidly while imports from non-EU countries decline, so that the EMFTA scenario leads to trade diversion. The real exchange rate depreciates which boosts exports.

There is no clear conclusion from the models on which sectors will benefit the most from the EMFTA. The main positively affected sectors, in terms of employment include: citrus, vegetables, phosphates, leather and insurance; while the negatively affected sectors include meat, sugar, cereals, food processing, beverages, textiles, paper, office machinery, electrical machinery, transport equipment. Elbehri (2004) concludes that the clothing sector will benefit most with increases in output of 60 percent.

Lofgren *et al.* (1999) estimate the effects of a reduction in tariff and non-tariff barriers with the EU within the frameworks of the association agreement. They estimate an increase of welfare of 1.4 percent for all households with the removal of tariff and non-tariff barriers with the EU. The results

indicate that reduced agricultural border protection would generate significant aggregate welfare gains to the non-rural sector and at the same time large disadvantages to the rural population. The impact of industrial tariff reduction is small, a reflection of the fact that these tariffs have a relatively limited impact on domestic price distortions. The results however suggest that, even with the extension of liberalisation to manufactured sectors, the outcome would not compensate for the costs to rural households. Most benefits would go to non-poor urban household (+2.3 percent), while poor rural households would lose by 2.9 percent. However, if simple integration is complemented by policies enhancing productivity or transferring compensatory resources, the rural sector would also benefit from integration. If properly targeted the rural poor will increase their incomes by 2.6 percent.

Lofgren (1999b) estimates the effects of implementing EMFTA in Morocco. Welfare would increase by 1.9%, real GDP by 2.2%. Growth is biased in favour of urban production and non-agricultural sectors, in part because these do not depend on natural resources, whose expansion is limited in size. Trade openness has a strong effect in lowering domestic prices and this will indirectly benefit consumers and the rural poor. In fact the bias of the welfare growth in favour of the poor and rural areas, is a reflection of the fact that growth in factor incomes is faster for agricultural resources and unskilled labour than for skilled labour and capital. Rapid growth in the rents of agricultural resources, including pastures, may lead to overexploitation and environmental degradation. Resource incomes in irrigated agriculture grow more rapidly than for other factors; this points to the growing importance of efficient resource management in this area.

Martin (2004) reports that loss of tax revenues can be substantial (around 1.9 percent of GDP).

Turkey

Turkey is a special case. In 1995 the country signed a *customs union* (CU) agreement with the EU, which was put into effect in 1996. All tariffs on Turkish imports of mining and industrial products from the EU were eliminated and the European common external tariff rates were adopted.

As already observed above, Turkey's trade intensity is relatively low, so that welfare impacts will be limited. Harrison, Rutherford and Tarr (1996) estimate a welfare increase of 0.3 percent following an EMFTA scenario for manufactured goods only. Comparative advantage shifts production towards textiles and apparel, leather, preparation of vegetables, fertilisers and shipbuilding. Trade diversion costs of the customs union are expected to be low because third country tariffs are not high.

De Sanctis (2000) estimates positive effects for textiles, wearing apparel, leather, and fur coats sectors and negative impacts on chemicals and transport equipment. Processed food, glass and glass products, cement, food products, and structural clay products would also gain by experiencing significant cost reductions.

Bayar *et al.* (2001) find that the impact of EMFTA (for all goods) is positive in the short run for agricultural, textile, clothing, leather, and mineral products. The most important positive effect is on the textile sector. Output declines in the other sectors as a consequence of the reallocation of the resources of the economy. In the long run, the positive effects on the textile, clothing and leather industries are smaller. The economy prefers to invest in some other sectors and as a result the initial short run positive effects on the agriculture, minerals, and other manufacturing products get stronger in the long run.

Positive improvements of welfare are identified by Augier and Gasiorek (2001). With the elimination of all tariff barriers with the EU, the welfare gains for Turkey are marginal at 0.01 percent, increasing to 2.5 percent when assuming competition effects on productivity and extended market access through harmonisation of quality standards.

Other countries

There are far fewer modelling studies for Algeria, Israel, Lebanon, Syria, and West Bank and Gaza. Because Algeria and Syria have relatively high initial tariffs, we could expect large welfare effects if trade was liberalised. However, Algeria and Lebanon have a high share of imports coming from the EU, while Syria has not, so that effects in Syria would be lower than elsewhere. Algeria, Lebanon and West Bank would face relatively high losses in government revenue as a result of a reduction in tariffs on EU imports.

Lucke finds marginally negative effects on production (-0.1%) for Syria. Multilateral liberalisation in Lebanon would lead to positive effects for manufacturing production (0.7%) and welfare (1.8%). Food beverages and tobacco, and chemicals would gain, while textile and clothing and wood and furniture would decline.

As expected, modelling results (Augier and Gasiorek, 2001) show that welfare effects of EMFTA for Israel are negligible (because of low initial tariffs), and tend to be the lowest of all MED countries.

Sectoral studies

From a sectoral point of view, some sectors suffer directly from lower protection (e.g. furniture, non-metallic products), while others benefit from cheaper imported and domestic inputs (e.g. textiles). Construction services suffer from lower investment and other sectors (e.g. services and utilities) benefit from greater domestic demand. However, in order to avoid generalisation and wrong policy recommendations, the country specific conditions should be carefully considered.

For instance, according to Avisse and Fouquin (2001) the multilateral elimination of quotas in textile and clothing will have a negative impact on the Mediterranean countries, as the main benefits will accrue to China and India. However, implementing a preferential access under EMFTA and excluding China, the Mediterranean countries will have positive results in term of welfare, because the MPC partners may benefit from accrued exports to the EU and from an initial higher protected market. In terms of exports, the authors predict that the Mediterranean countries may have big gains both in textiles (+40 percent) and in clothing (+120 percent).

A negative production effect dominates the pattern of agricultural output in the Mediterranean countries according to the estimates of Vaitinen (2001). The only positive effects are in sugar products, dairy products, other crop products, and other meat products, while the production of oilseeds, vegetable oils, processed food and sugar beet will be negatively affected.

The external effects of reform of the EU Common Agricultural Policy (CAP) are the concern for the CGE model of Conforti and Velazquez (2003). With a reduction of 45 percent of European export subsidies, the agricultural supply of Mediterranean countries will increase in all sectors. The main sectoral gains are in refined sugar (+2.6%), dairy products (+1.7%), coarse grains (1.5%), meat (+1.2%), sugar cane and beet (1.1%). However for full liberalisation, the oil seed sector will suffer a decline of -1.5%). The most gain will go to dairy products (+4.2%), refined sugar (+2.6%) and meat (2.2%). The trade balances will improve for almost all products, in particular for refined sugar and dairy products, with the exception of oilseeds.

As far the effect of the enlargement on the agricultural trade between EU and the Mediterranean countries, Frandsen (1998) provides an overall positive picture. European imports from the region increase from 3.8 to 4.5 percent of total agricultural imports. The largest increases of EU imports are of vegetables, fruit and nuts, other crops and other meat products, as the sourcing of EU imports shifts from the new member countries to the Med region. Given the relatively high level of protection in the EU, the trade diversion effects affect MPC exports of grains, livestock, bovine meat and dairy products, whose exports are predicted to decrease by more than 15-50 percent with an overall negative impact on production larger than 1-2 percent. MPC countries will gain market share in vegetables,

oilseeds, sugar and other crops. According to Frandsen (1998) production of textiles will decrease by 0.8 percent, while increasing by about 0.1 percent in other manufacturing products and services.

List of reviewed studies

Acar Mustafa (1999), What is next for Turkey? Implications for Incorporating Agriculture into the Customs Union with the EU, presented at the Second Annual Conference on Global Economic Analysis, Denmark, June 20-22, 1999

Alessandri Piergiorgio (2000), European and Euro-Mediterranean agreements: some simulation analysis on the effects on the EU trade Policy, CESPRI-Università L. Bocconi, Milano, WP n. 110

Annabi Nabli and Rajhi Taoufik (2001), Dynamics of Trade Liberalization: an Inter-temporal Computable General Equilibrium, Model Applied to Tunisia", Université Paris 1, TEAM, presented at the 75th International Conference, Policy Modelling for European and Global Issues, Brussels, July 5-7 2001 (ECOMOD 2001).

Augier Patricia and Michael Gasiorek (2001), "The welfare implications of trade liberalisation between the Southern Mediterranean and the EU", University of Sussex at Brighton, Discussion Paper No. 89, December 2001.

Augier Patricia and Michael Gasiorek (2001), "Trade Liberalisation between Southern Mediterranean and the EU: The sectoral impact", University of Sussex at Brighton, Discussion Paper No. 79, July 2001. presented at ECOMOD 2001

Augier Patricia and Michael Gasiorek (2002), "The EU and the Southern Mediterranean: The Impact of Rules of Origin", EcoMod 2002, paper presented at the Conference, Policy Modelling, Brussels, July 4-6, 2002.

Avisse, Richard and Michel Fouquin (2001), Textile and Clothing Trade: comparing multilateral agreement to regional FTAs, Paper prepared for the CEPPI-IDB conference "Impacts of Trade Liberalisation Agreements on Latin America and the Caribbean", Washington, November 5-6, 2001

Bayar Ali (2000), "European Enlargement to the East and its Implication for the MENA region", working paper

Bayar Ali and A. Erinc Yeldan (2000), "Agricultural Trade, Accumulation and Growth in the South Mediterranean Nics and Turkey, and their Interface with the European Union: Lessons from an Intertemporal, Multi-Region General Equilibrium Model", FEMISE Network, Paper prepared for presentation at the first annual FEMISE Conference, The Euro-Mediterranean Economic and Financial Partnership, Marseilles, 17-18 February, 2000.

Bayar Ali, Ghazi Ben-Ahmed and Raed Safadi (2003), WTO Negotiations and the MENA Region: A Preliminary Appraisal, EcoMod Network and Free University of Brussels, OECD

Bayar Ali, Xinshen Diao and A. Erinc Yeldan (2000), "An Intertemporal, Multi-region General Equilibrium Model of Agricultural Trade Liberalization in the South Mediterranean NIC's, Turkey, and the European Union", Trade and Macroeconomics Division, International Food Policy Research Institute, Washington, TMD Discussion Paper No. 56, May 2000.

Bayar, Ali H. (2001), "Fiscal Challenges of the Euro-Mediterranean Agreements", Report of the first research programme FEMISE, Université Libre de Bruxelles, Brussels, May 2001

Bayar AH, Ben-Ahmed G, Diao X and Yeldan AE (2001) An Inter-Temporal, Multi-Region General Equilibrium Analysis of Agricultural Trade Liberalization in the South Mediterranean NICs, Turkey, and the European Union, Femise

Bentabet Bouzine (2002), The Effects of Agreements Euro-Mediterranean: A Computable General Equilibrium Model for Algeria, presented at the ECOMOD 2002

Brown, Drusilla K., Alan V. Deardorff and Robert M. Stern (1997), "Some Economic Effects of the Free Trade Agreement Between Tunisia and the European Union", in Galal, Ahmed and Bernard

Hoekman Eds., *Regional Partners in Global Markets: Limits and Possibilities of the Euro-Med Agreements*, London: Centre for Economic Policy Research in Europe (CEPR) and ECES, p. 71-97.

Chatti Rim (2000), "General Equilibrium Assessment Of Trade Liberalization Effects Under Cournot Oligopoly Market Structures: The Case Of Tunisia", ERF, Working Paper 2009.

Chatti, Rim (1999), "An AGE Assessment of FTA Between Tunisia and the EU under Product and Labour Market Imperfections", mineo

Chatti, Rim (2003), "An AGE Assessment of FTA Between Tunisia and the EU Under oligopolistic market structures", *Review of Middle East Economics and Finance*, Volume 1, Number 2, August 2003, p. 99-127. Previously presented at ECOMOD 2001

Chemingui M.A and S. Dessus (1999), "The Liberalization of Tunisian Agriculture and The European Union: a Perspective Analysis", in S. Dessus, J. Devlin and R. Safadi (Eds), *Towards Arab and Euro-Med Regional Integration*, Development Centre Seminars, OECD, Paris, 2001

Chemingui Mohamed Albelbasset (2000), "European Mediterranean Partnership and Foreign Direct Investments: A Dynamic CGE Model with Endogenous Growth Applied for Tunisia", presented at the workshop on Foreign Direct Investment in the Arab World, March 2000, Kuwait

Chemingui, M. A. and C. Thabet (2001), "Internal and External Reforms in Agricultural Policy in Tunisia and Poverty in Rural Area", Paper Written for the GDN Research Medal Competition. Jan 2001.

Cockburn John, Decaluwe Bernard and Dostie Benoit (1998), *Les Leçons du Mariage entre les mosèles d'équilibre généraò calculable et la nouvelle théorie du commerce international: application à la Tunisie*, Cahier de Recherche de Laval N° 98-04, Université de Laval. (or *L'actualité économique*, 74(3), 381-413)

Conforti p. and B. E. Velazquez (2003), *The Effects of Alternative Proposals on Export Subsidies to Agricultural Products in the Current WTO Round*, Istituto Nazionale di Economia Agraria, Rome, Working Paper n.19, June 2003

De Santis, R., (2000), "The Impact of a Customs Union with the EU on Turkey's Welfare, Employment and Income Distribution: An AGE Model with Alternative Labour Market Structures", *Journal of Economic integration*, June, 15(2).

Dell'Aquila, C. and M. Kuiper (2003), "Which Road to Liberalisation? A First Assessment of the EuroMed Association Agreements", ENARPI Working Paper No. 2, CEPS, Brussels

Dessus Sebastian and Joey Ghaleb (2004), *Lebanon – Between Market Liberalization and Fiscal Consolidation: A General Equilibrium Analysis with Imperfect Competition*, paper presented at ECOMOD 2004

Dessus Sebastian, Suwa-Eisenmann Akiko (1998), "Trade Integration with Europe, Export Diversification and Economic Growth In Egypt", OECD Development Centre Working Paper No. 135, June 1998

Devlin, J. and J. Page (2001) 'Testing the Waters: Arab Integration, Competitiveness, and the Euro-Med agreements'; chapter 9 in S. Dessus, J. Devlin and R.Safadi, *Towards Arab and Euro-Med Regional Integration*, OECD, ERF and World Bank.

El Mekki Akka Ait and Wallace E. Tyner (2003), "The Moroccan-American FTA. Effects on the Agricultural and Food Sectors in Morocco".

Elbehri A. and T. Hertel (2004), "A Comparative Analysis of the EU-Morocco FTA vs. Multilateral Liberalization", Global Trade Analysis Project, GTAP Working Paper No. 31, February 15, 2004, Purdue University.

Elbehri Aziz and Thomas Hertel (1999), "Economic integration, market structure and growth dynamics: Implications for Morocco's Free Trade Agreement with the European Union", paper

presented at the Second Annual Conference on Global Economic Analysis June 20-22, 1999, Denmark.

El-Said Moataz, Hans Löfgren, Sherman Robinson (2001), "The Impact Of Alternative Development Strategies on Growth And Distribution: Simulations With a Dynamic Model for Egypt", International Food Policy Research Institute, Washington, D.C., TMD Discussion Paper No. 78.

Elshennawy, Abeer (2001), The Euro-Mediterranean Free Trade Agreement: An Inquiry into the Cost of Adjustment to Tariff Liberalization for the Egyptian Economy-An Inter-temporal General Equilibrium Analysis, Forum Euro-Mediterranéen Des Instituts Economiques (FEMISE) and Economic Research Forum (ERF), July 2001, <http://www.femise.org> Updated 20 March 2002.

Feraboli Omar (2003), "A Dynamic Analysis of Jordan's Trade Liberalisation", paper presented at the 6th Annual Conference on Global Economic Analysis, June 12-14 2003, Scheveningen, The Hague, The Netherlands.

Feraboli Omar, Beatriz Gaitan and Bernd Lucke (2003), "Trade Liberalisation and the Euro-Med Partnership: A Dynamic Model for Jordan", University of Hamburg, Institute for Growth und Fluctuation, October 2003.

Francois J., H. van Meijl, F. van Tongeren (2003), "Trade Liberalization and Developing Countries under the Doha Round", CEPR, Discussion Paper No. 4032, August 2003, [or Francois J., H. van Meijl, F. van Tongeren (2003), Economic Implications of Trade Liberalization Under the Doha Round, CEPR, Working Paper No 20 December 2003]

Francois Joseph (2003), Accession of Turkey to the EU: Implications for the Transport Sector, Tinbergen Institute and CEPR, May 2003

Frandsen S.E., H.G. Jensen and D.M. Vanzetti (1998), Expanding 'Fortress Europe' Implications of European Enlargement for Non-Member Regions, SJFI – Working Paper no. 12, December 1998

Galal, A. and B. Hoekman (2003) 'Aran Economic Integration. Between hope and reality.', Brookings institutions and Egyptian Centre for Economic Studies.

Hamdouch Bachir and Mohammed Chatar (2001), Impact des Accords de Libre-Echange Euro-Mediterraneens: Cas du Maroc, Report of the first research programme FEMISE, INSEA, Rabat, janvier 2001

Harrison Glenn ., Thomas F. Rutherford and David G. Tarr (1996), Economic Implications for Turkey of a Customs Union with the European Union, Policy Research Working Paper 1599, The World Bank, International Economics Department, International Trade Division, May 1996

Hoekman Bernard, Denise Eby Konan (1998), "Deep Integration, Nondiscrimination, and Euro-Mediterranean Free Trade", presented at the conference "Regionalism in Europe: Geometries and Strategies After 2000", Bonn November 6-8, 1998.

Hoekman Bernard, Denise Eby Konan (2005), Deepening Egypt-US Trade Integration: Economic Implications of Alternative Options, University of Hawaii, Working Paper, January 18, 2005.

Hoekman, Bernard and Simon Djankov (1997), "Towards a Free Trade Agreement with the European Union: Issues and Policy Option for Egypti" in Ahmad Galal and Bernard Hoekman (Eds), Regional Partners, Global Markets: Limits and Possibilities of the Euro-Mediterranean Agreements, London, Centre for Economic Policy Research in Europe (CEPR) and ECES, p. 156-177.

Hosoe Nobuhiro (2001), "A General equilibrium analysis of Jordan's trade liberalization", Journal of Policy Modelling, 23, p. 595-600

Jabarin, A. M. Sahawneh, L. Assaf and S. Muaz (2000), "The Impact of Euro-Mediterranean Partnership on Jordan and Palestine's Agricultural Sectors from a Water Perspective: The Case of Horticultural Exports to EU Markets, Economic Research Forum (ERF) Working Paper 2039, July 2000

- Konan, D.E and K. Maskus (1997), "A Computable General Equilibrium Analysis of Egyptian Trade Liberalization Scenarios," in Ahmad Galal and Bernard Hoekman (Eds), *Regional Partners, Global Markets: Limits and Possibilities of the Euro-Mediterranean Agreements*, London, Centre for Economic Policy Research in Europe (CEPR) and ECES, p. 156-177.
- Konan, DE and Maskus KE (1997b), "Joint Trade Liberalization And Tax Reform In A Small Open Economy: The Case Of Egypt", Centre For International Economic Studies, University Of Adelaide.
- Konan, D.E and K. Maskus (2002), "Quantifying the Impact of Services Liberalization in a Developing Country", World Bank Paper.
- Konan, D.E and K.E. Kim (2003), "Beyond border barriers: The Liberalization of Services Trade in Tunisia and Egypt", draft paper for ECOMOD 2003 conference.
- Konan, D.E. and Maskus K.E. (2000), Joint Trade Liberalization and Tax Reform in a Small Open Economy: the Case of Egypt, *Journal of Development Economics*, 61, pp. 365-92.
- Konan, Denise Eby (2001), "Alternative Path to Prosperity: Economic Integration Among Arab Countries", Presented at the conference "Arab Economic Integration: Between Hope and Reality, Cairo October 2001
- Konan, Denise Eby and Keith E. Maskus (1997), "A Computable General Equilibrium Analysis of Egyptian Trade Liberalization Scenarios," in Ahmad Galal and Bernard Hoekman (Eds), *Regional Partners, Global Markets: Limits and Possibilities of the Euro-Mediterranean Agreements*, London, Centre for Economic Policy Research in Europe (CEPR) and ECES, p. 156-177.
- Konan, Denise Eby and Keith E. Maskus (1997b), "Joint Trade Liberalization And Tax Reform In A Small Open Economy: The Case Of Egypt", Centre For International Economic Studies, University Of Adelaide, Seminar Paper 97-13, October 1997. Also published in Konan, D.E. et Maskus K.E. (2000), "Joint Trade Liberalization and Tax Reform in a Small Open Economy: the Case of Egypt", *Journal of Development Economics*, 61, pp. 365-92
- Konan, Denise Eby and Keith E. Maskus (2001), "Quantifying the Impact of Services Liberalization in a Developing Country", September 2001
- Lofgren Hans (1999), "Trade Reform and the Poor in Morocco: A Rural-Urban General Equilibrium Analysis of Reduced Protection", TMD Discussion Paper No. 38, Trade and Macroeconomic Division, International Food Policy Research Institute, Washington, D.D., January 1999
- Lofgren Hans, Moataz El-Said and Sherman Robinson (1999), "Trade Liberalization, Transfers and Skill Upgrading in Morocco: Dynamic General Equilibrium Analysis", IFPRI International Food Policy Research Institute, in *Topics in Middle Eastern and North African Economies*, electronic journal, Volume 1
- Marouani Mohamed Ali (2004), Effets de l'Accord d'association avec l'Union européenne et du démantèlement de l'Accord Multifibres sur l'emploi en Tunisie : Une analyse en équilibre général intertemporel, Document de travail DIAL / Unité de Recherche CIPRE Février 2004, DT/2004/01
- Maskus, Keith E. and Denise Eby Konan (1997a), "Trade Liberalization in Egypt," *Review of Development Economics*, 1, p. 275-93.
- Mercenier, J., Yeldan, E. (1997), "On Turkey's Trade Policy. Is a Customs Union with Europe Enough?", *European Economic Review*, Vol. 41, p. 871-880.
- Milgram Juliette (2003), La ZLE avec l'UE est-elle la meilleure option pour le Maroc et la Tunisie? Une simulation à l'aide d'un modèle calculable d'équilibre général, Université Paris 1, TEAM Série Blanche, Mineo
- Rutherford, T., Rutstrom, E., and Tarr, D. (1997), "Morocco's Free Trade Agreement with the European Community", *Economic Modelling*, Vol. 14, No. 9, p- 237-269, April.
- Rutherford, Thomas F., Elisabeth E. Rutstrom and David Tarr (1995), "The Free Trade Agreement Between Tunisia and the European Union", World Bank, Washington (DC), Unpublished Report.

[Rutherford, Thomas F., Elisabet E. Rutström, and David Tarr 1993, “Morocco’s Free Trade Agreement with the European Community: A Quantitative Assessment”, Policy Research Working Papers, WPS 1173, Policy Research Department, The World Bank]

Salem Haykel Hadj (2003), Impacts des accords de libre échange Euro-tunisien : évaluation par un Modèle d’équilibre Général calculable en 1996, G.A.I.N.S., Faculté de Droit et Sciences Economique du Mans, Université du Maine, Mineo.

Vaittinen, Risto (2001), Agricultural trade liberalisation in the millennium round - global effects and specific implications for the EU, presented at the 77th EAAE Seminar / NJF Seminar No. 325, August 17-18, 2001, Helsinki

Zahariadis Yiannis (2002), “Deep Integration in the EU-Turkey Customs Union: A Preliminary Analysis based on the GTAP model”, Paper presented at the DESG Annual Conference in Development Economics, University of Nottingham, 18-20April 2002.

Annex 3. Areas proposed for detailed study in Phase 3 of the SIA project

Following publication of a preliminary draft of this Phase 2 final report many comments and suggestions have been made by civil society representatives. These have been published on the project website (updated 26 March 2006) along with the consultants' responses, highlighting those areas to be considered for more detailed study in Phase 3. These comments and responses are reproduced in the tables at the end of this Annex.

Following discussion of civil society suggestions with the European Commission's project Steering Committee, four areas have been identified as priorities for detailed study in the third and final phase of the SIA.

1. Environment-related aspects

The following environment-related aspects will be examined:

- *Impact on water resources.* Without effective parallel measures the EMFTA may have significant adverse impacts on water resources in areas of high existing stress in both southern Europe and MPCs. There is a strong link to environmental services liberalisation, and to potential targeting of EU development assistance and EIB funding.
- *Environmental services.* This is a major area of the negotiations, with strong links to water resources.
- *Convergence of environmental and product standards.* This has strong potential benefits to MPCs, including a potential influence on FDI flows, but is constrained by the ability of MPCs to respond. An evaluation is needed of which areas/sectors offer the greatest enhancement potential.

Mitigating measures to be considered include water pricing and action to rectify system leakage. Account should be taken of social factors related to governments' past reluctance to remove subsidies. Impacts may be particularly significant for specific crops in particular areas, e.g. citrus fruits in Morocco.

2. Agriculture

Particular attention will be paid to small scale agriculture, rural livelihoods and the role of the non-farm rural sector. This is a sensitive sector in the negotiations, with significant social impacts in southern European countries as well as MPCs, and strong relationships to issues such as product labelling, convergence of standards, geographical indications, quality certification and organic farming. Much research is already being done, which needs to be drawn together in relation to EMFTA impacts. Aspects needing fuller study include potential loss of employment and land and water rights and gender impacts.

Important specific crops include tomatoes and olive oil. Olive oil is important economically, socially and environmentally in many MPCs and southern Europe, with significant potential trade effects through the EMFTA. Opportunities occur in MPCs for expansion in processing, and for south-south trade within and outside the Mediterranean region. For this and other sub-sectors, consideration may be given to MPC marketing strategies for increased exports to EC and elsewhere. Examples of successful export programmes may provide useful case study experience, e.g. Argentina, Turkey. The SIA should in particular examine the impact of such programmes on small scale agriculture and rural livelihoods.

The impacts of south-south agricultural liberalisation will be considered, as well as EU-MPC. Aspects of particular importance include cumulation of rules of origin, common standards, non-tariff barriers, and liberalisation of related services. The potential negative impacts of south-south agricultural

liberalisation need to be considered as well as the potential benefits (e.g. take account of the UNEP Lebanon case study for the olive oil sector).

3. Tax reform

This report has identified tax reform as a key mitigation measure for potentially significant adverse impacts, which is not included in the current Barcelona+10 Work Programme. Many difficulties arise in replacing lost tariff revenues from alternative sources. A potential alternative to be considered is adjustment of the pace of liberalisation to match the rate at which government revenues rise through rising per capita incomes.

The SIA may also consider the possibility of linking tax reform to economic instruments for environmental management, such as measures related to energy conservation.

4. Urban employment and industrial diversification

The employment impacts of industrial liberalisation are identified in this report as potentially significant. A fuller understanding is needed of the effectiveness of alternative measures to avoid or mitigate this through diversification of industry in MPCs, and to enhance investment opportunities in internationally competitive sectors, including those with local cultural content. This is linked to the potential contribution of liberalising business services and financial services and refocusing their activities towards those areas with the best development potential.

Consultation

The following tables reproduce the summary given on the project website of the SIA-EMFTA Consultation on Phase 2 Final Report.

Table 1. Outcome of 10th Anniversary Euro-Mediterranean Summit, Barcelona, 27 and 28 November 2005

A preliminary consultation draft of the final report on Phase 2 of the SIA-EMFTA was issued at the end of September 2005, to provide information for the 10th Anniversary Ministerial Summit of the Euro-Mediterranean Partnership, held in Barcelona on 27 and 28 November 2005.

Many of the actions agreed at the summit address issues which were identified in the SIA report. These actions are reproduced in the table below, along with the corresponding SIA recommendations.

Text of the Barcelona+10 Work Programme¹	SIA-EMFTA Phase 2 recommendations
<p><i>Sustainable socio-economic development and reform</i></p> <p><i>7. To work towards creating more job opportunities for the increasing numbers of young people across the region, reducing regional poverty rates and closing the prosperity gap and raising GDP growth rates, Euro-Mediterranean partners will undertake measures to achieve:</i></p>	
<p>7. g) Better socio-economic inclusion, in particular in order to face social consequences of sectoral restructuring;</p> <p>7. i) Increased labour force productivity through greater access to vocational and technical training and measures to encourage technology transfer from European partners. An increased role for the private sector in financing and training within the</p>	<p>To counter urban unemployment and associated impacts resulting from industrial liberalisation, MPCs may take direct measures to help industrial companies increase their competitiveness vis a vis European companies. Such measures would be broadly similar to those taken by Tunisia in its mise à niveau programme, adapted to local needs and to the lessons learned from experience with the</p>

<p>workplace;</p> <p>7. j) An increase in the region's domestic investment and of its share of global foreign direct investment, particularly in non-oil sectors, by inter alia improving its investment climate and supporting efforts to attract foreign and domestic investment that contribute to the creation of new jobs in the region;</p> <p>7. k) An increase in the percentage of the labour force working in the private sector;</p> <p><i>Education and Socio-Cultural Exchanges</i></p> <p>10. e) Work to strengthen the quality and relevance to the labour market of primary and secondary education and training by increasing the effectiveness of the school system, promoting skills, innovation and active self-learning, providing continuous education and training for the teaching force, making appropriate use of educational materials and information technology and e-learning, and through the monitoring of quality assurance, including support for participation in international assessments (e.g. TIMSS);</p> <p>10. f) Support market based reform of Technical and Vocational Education and Training, the involvement of commerce and industry, and rationalisation of qualifications;</p> <p>10. g) Enhance the capabilities of universities and higher learning institutions, including by encouraging networking between them within the Euro- Mediterranean region, and improve the relevance of their programmes to labour market demands and the knowledge-based society;</p>	<p>Tunisian programme. They may for example include assistance to both large scale producers and SMEs to access appropriate information and funding for modernisation, schemes to facilitate the development of MPCs' internal supply chains, and initiatives to strengthen the responsiveness of education and training systems to changing private sector needs.</p> <p>Some of this assistance may be targeted specifically at those manufacturing sectors which offer the greatest potential for expanding employment opportunities, in order to counter the loss of employment in rural areas due to accelerated commercialisation of agriculture. Any such targeting should take account of the threats to textile industries arising from the ending of the Multi-Fibre Agreement, and of individual MPCs' potential comparative advantages and disadvantages in other manufacturing sectors.</p>
<p>7. e) Strengthened social protection systems to ensure a basic standard of living for the most vulnerable;</p>	<p>Many of the potentially adverse social impacts of the EMFTA can be avoided through economic measures such as those discussed above. The effectiveness of such measures in avoiding adverse social impacts should be carefully monitored, such that they may be revised as necessary.</p> <p>Other measures which form part of a more general process of social development in MPCs would contribute to avoiding adverse impacts from the EMFTA. These may for example include measures for greater participation in decision-making by employers' organisations, trade unions, cooperative associations and other social economy institutions, expanded freedom of association and collective bargaining rights, and the introduction of stronger minimum wage policies in parallel with regulatory reforms to increase the flexibility labour markets.</p>
<p>7. h) A significant increase in the percentage of women in employment in all Euro-Mediterranean partner countries;</p>	<p>Specific policy measures to avoid potentially adverse impacts on women may include stronger labour standards for gender issues, for both agricultural and industrial employment.</p>
<p>7. f) Developed national capabilities in the field of scientific and technological research and innovation to establish a knowledge based society through increased co-operation with and access to</p>	<p>The development of integrated regional industrial and agricultural policies would enable greater advantage to be taken of economies of scale within the region, achieve greater synergy of development</p>

<p>relevant European programmes and institutions;</p> <p>8. k) Develop scientific and technological research and innovation and facilitate the transfer of technology in accordance with national legislation; implement the recommendations of the 2005 Euromed Dundalk Ministerial Conference on ICT; invite the competent EU authorities to extend the Eureka Programme to all Mediterranean partners;</p>	<p>strategies, and enable a concerted approach to be taken to accelerating the economic and social development of the region.</p> <p>The potentially significant adverse employment effects of both EU-MPC trade liberalisation and south-south liberalisation may be considerably eased by regional cooperation to achieve a smooth transition to greater complementarity in agricultural and industrial production.</p> <p>In support of such policies, regional institutions may be created to undertake research into common issues of economic, social and environmental development, and contribute to the development of regional and national policy initiatives.</p>
<p><i>8. With a view to contributing to the above objectives and based on the Barcelona Declaration, Euro-Mediterranean partners will:</i></p> <p><i>a) Design and implement a road map, the components of which should be developed in a comprehensive way, in accordance with the provisions of the Association Agreements, for the creation of a Free Trade Area by 2010. This road map includes:</i></p>	
<p>8. a) (i) The progressive liberalisation of trade in agriculture, processed agricultural products and fisheries products, with a possible selected number of exceptions and timetables for gradual and asymmetrical implementation, taking into account the differences and individual characteristics of the agricultural sector in different countries, building on the Euromed Association Agreements and regional free trade agreements, based on the Rabat roadmap. Non-tariff aspects of agricultural trade liberalisation should be properly dealt with, along with other issues such as rural development, agricultural productivity and quality, as well as sustainable development. Negotiations will start with partner countries as soon as possible;</p>	<p>Measures to facilitate the transition to less labour-intensive but more economically competitive commercial agriculture need to be fully integrated with parallel measures to support the livelihoods of subsistence farmers during the period of transition. Both types of measure need to be sufficiently flexible to take account of expanding or contracting employment opportunities in other sectors of MPC economies. Facilitation measures such as land reforms, skills training and micro-credit schemes for small-scale farmers may be combined with initiatives to promote the development of rural industries and accelerate the creation of alternative sources of income in rural areas.</p> <p>Provisions for food subsidies need to be reviewed and if necessary revised, in such a way as to buffer the greater vulnerability to world price fluctuations that is expected to result from agricultural liberalisation.</p>
<p>8. c) Take advantage of the adoption of the Pan-Euro-Mediterranean protocol on cumulation of origin as a step towards promoting intra and inter-regional integration;</p>	<p>Such institutions [<i>regional institutions to undertake research into common issues</i>] may for example contribute to developing a common system of rules of origin, and regional approaches to dismantling non-tariff barriers and the facilitation of regional trade.</p>
<p>8. d) Approximate standards, technical legislation and conformity assessment, and provide support and assistance to that end, so as to pave the way for the negotiations of Acceptance and Cooperation Assessment Agreements on Industrial Products (ACAAs) and the elimination of technical obstacles to commerce at the latest by 2010;</p>	<p>Assistance for schemes providing wider dissemination of information on EU product standards and other market access constraints and opportunities.</p>
<p>8. i) Strengthen impact analysis of economic reforms and co-operation in the region;</p>	<p><i>Phase 3 of the SIA-EMFTA will contribute to this</i></p>

<p>8. j) Promote environmental sustainability and implement the Mediterranean Strategy for Sustainable Development. To develop as soon as possible a road map for de-polluting the Mediterranean by 2020, based on the recommendations of Euromed Environment Ministers using inter alia the MSSD and the UNEP Mediterranean Action Plan towards this end, while providing adequate financial and technical assistance to this end. The goal should be to tackle all the major sources of pollution including industrial emissions, municipal waste and particularly urban wastewater. Exchange experience on sustainable development in the Baltic Sea, the Mediterranean and the Black Sea;</p>	<p>In some MPCs such as Israel and Tunisia, existing environmental regulation is sufficiently strong to counter most of the expected adverse impacts without extensive further development. In other MPCs many aspects of environmental regulation will need to be strengthened, particularly in relation to water resources, land use planning and controls, and protection of biological diversity.</p> <p>Knowledge is limited in most MPCs on the state of the environment, current trends and areas of stress. In order to be able to identify and respond to actual impacts, better information is needed on environmental baseline data, and monitoring systems need to be strengthened.</p> <p>In order to better integrate environmental factors into all policy measures designed to optimise the impacts of the EMFTA, greater use may be made of environmental economics techniques. Institutional capacity to use these techniques would benefit from further strengthening in most MPCs.</p> <p>Measures to reduce or avoid adverse impacts associated with production changes may include assistance to large and small companies in environmental management and cleaner production systems, and promotion of environmentally sound farming practices.</p> <p>Measures to counter the adverse impacts of increased transport may include the strengthening of environmental standards for marine transport and commercial vehicles.</p> <p>The expected increase in the use of packaging may be partially countered by recycling schemes, in order to minimise the necessary infrastructural investment in solid waste management.</p> <p>Support from the EU through the various initiatives of the Barcelona process would be particularly beneficial [<i>inter alia</i>] in the following areas.</p> <ul style="list-style-type: none"> • Coordination of all EU support within the Barcelona process towards common sustainable development objectives, through inter-agency screening of programme proposals against the priority actions defined in the Mediterranean Strategy for Sustainable Development (MSSD). • The MSSD should itself be further developed to take account of continuing research into the economic, social and environmental impacts of greater regional integration.
<p>8. m) Develop a regional transport infrastructure network and adopt a set of recommendations at the Marrakech Euromed Transport Ministerial Conference in December 2005 to boost transport co-operation;</p>	<p>Measures to maximise the benefits of regional trade may include cooperative investment in regional transport and other infrastructure.</p>
<p><i>Fiscal measures – not covered by the Work Programme</i></p>	<p>Tax reforms may be implemented in parallel with trade liberalisation, sufficiently early to avoid any loss of government revenue. New tax systems</p>

	need to be such that lower income groups are not disadvantaged compared with previous mechanisms, based on the experience of MPCs that have already introduced reforms.
--	---

¹ Council of the European Union, 28 November 2005, Five Year Work Programme, 15074/05 Presse 327, Brussels

Table 2. Comments from Plan Bleu on Final Report for Phase II of the SIA-EMFTA project

Plan Bleu comment	Contractor's response
We find the report interesting and well presented. Tables with signs to indicate whether impacts of the EMFTA are expected to be adverse, beneficial or nil are very useful.	
General comment:	
At the end of the reading, one might conclude that many adverse effects are expected from the EMFTA, either environmental, social or even economic. In addition, impacts on MDG are not significantly positive and the EMFTA doesn't seem to influence systematically positively the MSSD indicators follow up. At same time, the study shows a relatively small economic benefit. As a result, the study and the executive summary draw attention to the fact that negative impacts of the EMFTA are huge enough to justify the introduction of specific trade related measures within negotiated agreements, specific measures in policies at domestic level in the EU and in the MPCs and specific activities in the euro-mediterranean cooperation.	The SIA does not compare benefits and costs to evaluate an aggregate net outcome, since different social groups are affected differently by each of the social, environmental and economic impacts. A relatively small direct economic gain is identified, along with potential for considerably larger economic benefits when the EMFTA is considered in parallel with other measures.
In the present case , one would say that, trade and sustainable development are not "mutually supportive" as requested by the RIO and DOHA declarations (in particular in the case of agricultural products). Our main feeling at the end of the reading bring us to the conclusion that both trade related measure and specific domestic policies are crucial for the region to mitigate adverse impacts and enhance beneficial ones.	Trade and sustainable development can be mutually supportive, but the study does show that for this to occur, trade policy and parallel policies need to be appropriately designed.
We also conclude that foreign trade should play a role in stimulating economies; but to keep control of the social and environmental situation in the countries and the region, foreign trade is a tool to be used with cautious to achieve sustainable development objectives. Therefore, this study clearly stress the need for the region and for the countries to define/redefine and implement sustainable development strategies taking into account impacts of the EMFTA. As a result, it could then be highlighted that regional cooperation should place sustainable development issues at the hart of the euro-med cooperation, foreign trade being considered as a tool to help the achievement of sustainable development objectives. It will allow the region to enhance positive impact of the EMFTA and to mitigate negative one.	We agree.
Specific comments:	
issue of air quality in cities could be more highlighted in the summary: it could be mentioned in a bullet of the summary, under the environmental impact expected paragraph. As well as the waste generation, the changes in consumption mode and for example the massive importation of individual cars will made the situation worse in local air pollution in cities with direct and costly impact on health. In the summary the issue of transport doesn't appear as a key domain to take into account ; same remark for urban policies and transportation in urban area which are not mentioned in the summary and which are	We agree that these points are important. They <i>will be considered for more detailed study in Phase 3.</i>

of high importance for local air quality.	
Impacts on MDG: we don't find the impact on goal 3 in the summary, probably because as indicated in the related chapter the impact is not significant. Why not to mention it ?	The impact was not mentioned in the executive summary because it was assessed as being insignificant.
The use of economic (subsidies) and fiscal tools (taxes) to encourage production, investment and consumption to evolve toward a better compatibility with sustainable development targets is not mentioned p74 when talking about the tax reform. It can apply to transport, energy, cities ... some example show good results when those tools are well combined and used.	We agree that this is an important point, which <i>will be considered for more detailed study in Phase 3</i> .
Agriculture: in the trade related measures of the summary : we think that to say "... and phased transition to full liberalization" might be in contradiction with the beginning of the sentence where it is written: "...continued protection for sensitive products..." .	Phased transition and continued protection are presented as alternative options.
Agriculture: for MPCs there are opportunities for an increasing international demand for high quality products, such as organic products or other products with recognize quality. To this end, labeling and quality certification policies could be supported by the euro-mediterranean cooperation.	<i>Consider for detailed study in Phase 3</i>
Bullet number 3 to 5 in the "Domestic policy in MPCs" appears more as actions to be decided at the regional level and should then be integrated in the EU development assistance paragraph. Same remark for marine transport and commercial vehicles (last bullet).	We kept this separate from EU assistance, as MPCs have common interests as a sub-part of the region. The issues are however brought up again under EU assistance.
The paragraph "EU development assistance" integrate proposals to study issues, target actions and make countries able to implement those actions. I think a word regarding the financing of actions should be included. From the Plan Bleu studies, it appears that a better connection of the financing system (EIB, Meda...) with identified sustainable development actions is needed. And to do so, some quite important changes in the fund management has to be done.	The Phase 2 report does recommend "coordination of all EU support within the Barcelona process". The mechanisms for achieving this <i>could be examined in more depth in Phase 3</i> .
Regarding the coordination with other cooperation bodies, you mention the coordination of all EU activities within the Barcelona process towards common sustainable development objectives and you also mention the MSSD. I think, you should also add that activities of the EU have to be coordinated with activities of other cooperation bodies in the region in particular dealing with sustainable development issues (such as UNEP/MAP, World Bank, ...).	We agree that this point is important. It can be <i>highlighted in Phase 3</i> .
The clean development mechanism of the Kyoto protocol can also be cited as a financial tool coming from environmental negotiations and able to encourage FDI in specific key sector such as transportation or energy where GHG emissions are strong.	<i>This can be considered in Phase 3</i> .
We nevertheless wonder why MAP (Mediterranean Action Plan) is cited only for the MSSD in your report. Let's remind that the MCSD (Mediterranean Commission for Sustainable Development) requested Plan Bleu to work about free trade and the environment in the region and that MAP published all the results of this work in its Technical Reports Series. This topic was a priority field for the period 1999-2002 and a synthesis report was produced for the MCSD. All the related studies are available at: http://www.planbleu.org/publications/libreEchangeUk.html .	We agree entirely on the importance of all the MAP work in this area. This was reported in in the Inception Report for the SIA study, and has been used in the subsequent work.
We are also pleased to inform you that a new report from Plan is published now: "A sustainable future for the Mediterranean".	This report will prove a valuable resource for Phase 3.

Table 3. Regional consultation with civil society, Malaga, 2 October 2005

Civil society comment	Contractor's response
<i>General Macro-Economic Issues</i>	
The meagre net economic welfare benefits, compared to possible high social, economic and environmental costs to MPCs raised a basic question: was the EMFTA exercise worth the effort, and should alternative approaches to development of MPCs be considered?	The economic welfare gains forecast in the SIA should be seen in the context of uncertainties inherent in this type of study. Potentially large benefits are identified, which depend on other factors in MPC development policy as well as the EMFTA. The EMFTA as defined in the scenarios is taken as given, and the purpose of the SIA is to evaluate its impacts and suggest amendments to the trade agreements and/or enhancing and mitigatory measures to accompany trade liberalisation.
No reference was made to central issues of macro-economic stability, e.g., future balance of payments crises leading to possible MPC currency devaluations, nor to demand, supply and price elasticities.	The report takes account of elasticities in the discussion of the uncertainties inherent in CGE and other economic analyses. The report also considers the possibility of a balance of payments crisis and currency devaluation being triggered by the effects of the EMFTA. In other respects the interactions with EMFTA were considered not to be significant.
In view of market imperfections in MPCs, benefits were unlikely to pass through to consumers	The effect of market imperfections on the extent of pass-through is included in the discussion of uncertainties in the modelling studies
The report stated that long-term economic welfare gains depended on future policies, but such policies were not identified.	Possible policies are discussed later in the report, in relation to mitigation and enhancement measures.
The assumption of constant overseas development assistance (ODA) levels was challenged, since a number of EU Governments preferred to emphasise trade rather than aid; thus the level of aid to MPCs might decline in the future.	The SIA does not assess the impacts of possible changes in EU assistance to MPCs, up or down, since this is not part of the EMFTA. It does, however, recommend co-ordination of EU support towards common sustainable development objectives, irrespective of any change in ODA flows to MPCs.
Issues of EMFTA-induced structural economic changes in MPCs should be addressed, as well as what types of structural changes should be effected before trade liberalisation occurs.	Many of the economic impacts that are identified in the study may be regarded as structural changes. The section on mitigation and enhancement recommends changes that should be made before liberalisation or in parallel with it.
The impacts of the EMFTA in terms of net financial flows should be positive, i.e., inflows from the EU should exceed loss of customs revenues of MPCs. Prospects for negotiating a package of external debt relief should be examined, as a way of freeing MPC budgetary resources.	The effect on MPC national income is neutral, since the loss of customs revenue is balanced by lower prices to MPC consumers. The SIA does however identify potential distributional effects within the country, if the lost revenue is not replaced by other taxes on the same consumers.
The SIA did not address the possible impact of the European Neighbourhood Policy in MPCs.	Except in so far as EMFTA is part of the Neighbourhood Policy, this is correct. The SIA is for the EMFTA.
Descriptions relating to Tunisian economic progress since	The discussion covers economic progress

entry into force of the Association Agreement were too optimistic	before and since the Association Agreement, and notes the importance of other policy measures.
<i>Trade liberalisation: general issues</i>	
Positive impacts of liberalisation of trade in industrial goods evoked in the SIA were not supported by subsequent analysis.	The study identifies both positive and negative effects.
The most likely scenario could be that liberalisation would occur without any mitigation measures in the South. The resulting situation under this scenario should be forecasted and analysed as part of the SIA.	The main sections of the SIA, including the tables, assess impacts in the absence of mitigation.
The SIA did not consider present and possible future impacts, at the national and regional levels, of free trade area agreements concluded by the United States with certain MPCs, viz Jordan and Morocco.	These trade agreements were discussed in the Baseline Report for the SIA.
The SIA did not address issues relating to international property rights (TRIPS).	Questions relating to international property rights going beyond the present TRIPS agreement are not included in the SIA as the EC have advised that the issue would not be pressed within the EMFTA. Should this change, examination of related aspects <i>should be considered for study in Phase 3.</i>
The relationship between the EMFTA and Article XXIV of GATT should be clarified.	The SIA is intended to study the impacts of the SIA, not its GATT compatibility.
The assessment should take into consideration the impacts not directly linked to trade liberalization, such as the removal of agricultural subsidies and privatization.	The parallel effects of CAP reforms are discussed in the section on agriculture. The interactions between liberalisation and privatisation are discussed in the section on services.
<i>Industry</i>	
The negative impacts of on-going trade liberalisation in industrial goods would start to be felt in the last four years of the transitional period under the different Association Agreements.	The timing of impacts may be <i>considered for more detailed study in Phase 3.</i>
The informal economy in MPCs should be studied.	<i>Consider for detailed study in Phase 3</i>
<i>Agriculture</i>	
The report did not address issues relating to the rural non-farming sector or assess the overall impact of EMFTA on the agricultural sector, in particular on subsistence farming.	The SIA recommends facilitation measures such as land reforms, skills training and micro-credit schemes for small-scale farmers in MPCs, combined with initiatives to promote the development of rural industries and accelerate the creation of alternative sources of income in rural areas. It also recommends more research into alternative lifestyle options available in rural areas of Southern Europe.
The experience of the North American Free Trade Area and its impacts on Mexico, in particular in rural areas and the related loss of rural livelihoods of millions of small farmers, should be carefully evaluated for lessons on possible impacts of the EMFTA.	This experience contributed to the Phase 2 findings, and may be <i>considered for more detailed study in Phase 3.</i>
The potential and prospects for organic agriculture in MPCs should be examined, particularly in terms of the potential it may present for generating employment opportunities.	<i>Consider for detailed study in Phase 3</i>
According to a suggestion made in the European	<i>Consider for detailed study in Phase 3</i>

Parliament, MPCs should be permitted to impose import levies for certain protected products: revenue thus raised would be allocated to social and environmental programmes.	
Protection of agricultural sectors should be set in the framework of the 'food sovereignty' concept.	Alternative approaches to food security need to take account of a wide range of issues.
The development of agri-business-type large-scale export agriculture in MPCs could involve subsistence farmers losing ownership of assets such as land and water resources, with corresponding welfare implications.	This is discussed in the Phase 2 report, and may be <i>considered for more detailed study in Phase 3</i> .
Disastrous impacts on agriculture had been observed in Lebanon as a result of South-South trade liberalisation with neighbouring countries.	<i>Consider for detailed study in Phase 3</i>
<i>Social issues</i>	
The critically important issue of migratory flows in the Mediterranean was not mentioned in the SIA, nor the possible impacts of trade liberalisation on immigration.	This is discussed fairly fully in Section 4.2.1. Unemployment and Migration. It may be <i>considered for more detailed study in Phase 3</i> .
Impacts of EMFTA should be disaggregated by social groups, with special focus on women, farmers, and organised labour.	Some disaggregation has been done in the Phase 2 report. <i>Consider for more detailed study in Phase 3</i> .
Consumer gains from cheaper prices of EU imports in MPCs would be offset by local producer losses.	<i>Consider for detailed study in Phase 3</i>
Changes in consumer habits and preferences generated by trade liberalisation should also be considered.	Effects on consumer cultures are discussed in Section 3.2.7. <i>Consider for more detailed study in Phase 3</i> .
Could loss of social capital be replaced by more formal institutions?	The enhancement of social economy and other institutions is discussed in the section on mitigation and enhancement. <i>Consider for more detailed study in Phase 3</i> .
There are no mechanisms within the Euro-Mediterranean Partnership (EMP) for co-responsibility: MPCs would be left alone to deal with social impacts of the EMFTA.	The Barcelona process itself may be regarded as a form of co-responsibility. The report's recommendations suggest possible means of strengthening this.
<i>Environmental issues</i>	
Would MPCs be able and willing to adopt environmental standards and legislation equivalent to those in the EU? How this would affect flows of foreign direct investment in new industrial capacity there?	The economic issues are complex. <i>Consider for more detailed study in Phase 3</i> .
Possible positive environmental impacts were exaggerated, while the consequences of destruction of irreplaceable environmental services were not adequately addressed. An overall assessment of environmental impact did not emerge from the SIA so far.	The report indicates an overall adverse impact on climate change and global biodiversity, with specific effects in both directions. It should be noted that positive effects do not cancel out negative ones.
A World Bank study showed that the cost of environmental degradation in MPCs was equivalent to 6% of GDP a year.	Some degree of economic valuation of environmental impacts may be valuable. <i>Consider for more detailed study in Phase 3</i> .
The impacts of global climate change on environmental services, resources and agriculture within MPCs, as well as the constraints of preparing and adapting agriculture to these impacts needed to be more clearly indicated and distinguished from the climate-related impacts expected from EMFTA	Other studies may be needed on this. The SIA addresses the EMFTA.

Hazardous waste issues were not addressed in the SIA.	The general literature indicates that cross-border movements of hazardous waste will not be significantly affected by the EMFTA trade agreements.
<i>Governance</i>	
The report should focus more on governance issues, and the institutional capacity in MPCs to implement parallel reforms.	Section 9 makes recommendations for capacity strengthening.
Issues of corporate social responsibility should be addressed, as well as public participation, such as mechanisms laid out in the Aarhus Convention.	The potential influence of CSR is included in the discussion of environmental impacts. Stronger mechanisms for public participation would be included in environmental capacity strengthening.
The SIA was not advocating governance and democratic reforms, which would be more likely to produce benefits than continuation of present trends.	The <i>Phase 3</i> studies might be able to examine democracy issues in so far as they relate to realising benefits from the EMFTA.
<i>General Comments</i>	
It was necessary to include a caveat noting that the findings were based on the availability and accuracy of existing data, as well as a mix of quantitative and qualitative assessments.	This is discussed in the report.
The tables tabulating positive and negative impacts could be misleading: clarification was needed about whether under each subject area negative impacts listed could be cancelled out by positive ones.	Positive and negative impacts do not cancel.
Strong recommendations were needed on the nature of future EU support to MPCs.	Section 9 presents recommendations for EU support.

Table 4. Circular issued by Friends of the Earth – MedNet, October 20 2005

FoE-Mednet comment	Contractor's response
<i>Mediterranean Free trade - costly and no real benefit foreseen.</i>	
Latest research into the economic, social and environmental impacts of the EuroMed free trade Area predict widespread adverse social impacts for Mediterranean partner countries (MPCs) with no significant welfare benefits foreseen.	The adverse impacts that are identified are described as worst case indications, in the absence of appropriate mitigation. Direct economic benefits are estimated to be small, but the report also identifies potentially much larger ones, on implementation of appropriate enhancement measures.
Friends of the Earth MedNet organised an NGO consultation meeting with Manchester University in Malaga on October 2 on the sustainability impact assessment (SIA) of the Euro-Mediterranean Free Trade Area (EMFTA), where the latest SIA report (phase II) was presented to participants. The European Commission commissioned Manchester University to carry out the independent SIA of the EMFTA to examine the potential impacts of agreed trade measures on sustainable development in the region. It is expected that the SIA will provide reliable and widely accepted analysis of the impact of these trade measures, as well as recommendations to inform ongoing and future trade negotiations on the EMFTA.	
The SIA phase II study (http://www.sia-trade.org/emfta)	Except where noted below, the summary is

<p>identifies some social impacts that may be significantly adverse unless effective mitigating action is taken. The potential impacts of greatest concern are:</p>	<p>an accurate reflection of the report's findings.</p>
<p>a significant rise in unemployment, particularly for liberalisation of trade in industrial products and agriculture a fall in wage rates associated with increased unemployment; a significant loss in government revenues, with consequent social impacts through reduced expenditure on health, education and social support programmes; greater vulnerability of poor households to fluctuations in world market prices for basic foods; adverse effects on the status, living standards and health of rural women.</p>	
<p>The main potential adverse environmental impacts that have been identified are:</p>	
<p>significant local impacts on water resources, soil fertility and biodiversity in areas of high existing stress; higher environmental stress in cities, resulting from declining rural employment and accelerated rural-urban migration; higher air pollution and coastal water pollution from greater international transport; higher waste generation from greater use of packaging materials. The assessment indicates an overall adverse impact on climate change and global biodiversity, arising primarily through increased transport and greenhouse gas emissions, and pressures for increased agricultural production in biologically sensitive areas in MPCs.</p>	
<p>The report goes on to enumerate a number of mitigating measures that Mediterranean countries need to take to avoid the adverse impacts predicted above. Significantly the EU needs to do little or nothing while MPCs will have to take a long list of very costly measures to avoid the adverse social and environmental impacts previewed.</p>	<p>Significant adverse impacts are also identified within the EU, although the EU has stronger institutions for taking mitigating action.</p> <p>A number of alternative measures are recommended for MPCs, and for joint EU-MPC action, not all of which need be costly. <i>Consider for more detailed study in Phase 3.</i></p>
<p>Given that little or no significant welfare gain (as measured by GDP % increase) is expected in the region from the setting up of the free trade area, one must ask oneself, why bother? The European Commission rhetoric which says that the EMFTA will deliver the EuroMed partnership goals of peace, stability and prosperity to the region is frankly not correct if this SIA report is to be taken seriously. Meanwhile unemployment remains dangerously high in the region, migratory flows and their often tragic consequences witnessed day after day on our televisions continue, and democratic reform in MPCs not forthcoming.</p>	<p>Without enhancement measures the direct welfare gain is expected to be small, but potentially much larger benefits are available in association with parallel measures identified in the report.</p> <p>The EMFTA is only one component of the EuroMed partnership, whose goals are those of the partnership as a whole.</p> <p>The SIA assesses only the incremental impact, in either direction, of the EMFTA on unemployment and migratory flows, whose causes are complex.</p>
<p>It is time to change the direction of the EuroMed partnership and begin focussing on real issues that impact the daily lives of the regions citizens. Citizens are not interested in economic growth per se, but jobs, education, housing, health care and a healthy environment into which they can nurture their families. These real issues can be tackled regionally by achieving all the relevant Millennium Development goals and by implementing the Mediterranean Strategy for Sustainable Development (MSSD).</p>	

That is why Euromed NGOs gathered in Malaga on September 30- Oct 2 to bring these issues to the attention of Mediterranean heads of state who are due to meet at the Barcelona Summit on November 27-28 this year. Our proposals are comprehensive and urgent and range from making calls for a Euromed ministerial on Employment in 2006, to urging for Euromed trade liberalisation negotiations to stop until the SIA of the EMFTA is finalised in late 2006, so its recommendations can be incorporated in future negotiations.	The timing of the SIA-EMFTA has been planned such that the Phase 2 report provides information and recommendations appropriate for the current stage of the negotiations. The final (Phase 3) report of the study will provide further information for the ongoing negotiations.
---	--

Table 5. General contributions received in consultation on SIA-EMFTA Phase 2 Final Report

Contributor	Contribution	Response
David Hammerstein MEP	Examine effects of growing crops in MEPs for export to EU on reduced water availability for local food crops, e.g. oranges in Morocco.	<i>Consider for detailed study in Phase 3</i>
	Note impacts of removing EU export subsidies (CAP reforms) on urban poverty in MEPs (e.g. Egypt)	<i>Consider for detailed study in Phase 3</i>
Trans-Mediterranean Renewable Energy Cooperation TREC	EMFTA for renewable energies (e.g. transmission of solar and wind power from North Africa to Europe)	Synergies may be strong, without the need for an FTA
Regional agro-food seminar, ESCWA	Were secondary impacts on biodiversity considered in the analysis? (e.g., how adverse social impacts of agricultural liberalization and rural unemployment/ poverty will likely impact deforestation, animal biodiversity loss due to hunting, etc.).	The SIA allows for this in increased pressure to convert marginal lands.
	Is it possible for the recommendations to incorporate issues related to agricultural subsidies?	The EU CAP reforms are not part of the EMFTA scenario, but their parallel effects were considered. Recommendations have been made regarding food subsidies in MPCs, in relation to food security issues.
	Can/will specific products be targeted in the case studies? Suggestion by participants to look into medicinal and herbal plants, as well as organic agriculture to better access EC market. Promotion of Egyptian potatoes and onions also suggested.	Yes, specific products can be targeted. <i>These suggestions will be considered for Phase 3.</i>
	Need for greater research and development in the agricultural and agro-food sectors. Suggestion to research agricultural calendars of MPCs towards EC to improve timing and export of agricultural products produced by several MPCs.	This falls within the general research recommendations made in the Phase 2 report.
IFAP	MEP farmers lack information about the EMP, and do not have enough power of negotiation. Capacities of farmers' organisations need strengthening.	The Phase 2 report includes a recommendation for support of this nature.
Vanya Walker-Leigh, Malta	All countries and economic sectors need more detailed study in Phase 3.	This would reduce the level of detail, but <i>will be considered for Phase 3</i>
Emma Murphy	Many Tunisian SMEs did not engage with the	The effectiveness of this

Contributor	Contribution	Response
	mise a niveau programme. Many of those which did increased exports and employment.	type of mitigation <i>could be examined in more detail in Phase 3.</i>
Oxfam	In phase 3 overall, look at the small-scale agriculture sector, rural non-farm sector, and rural development as a whole.	<i>Consider for detailed study in Phase 3</i>
	Within that, we can explore these very specific sub-sectors: 1. Tomatoes, citrus fruit juice and butter in Morocco, 2. Cereal, beans, butter and skimmed milk, spring onion, sugar pea, sweet pepper, strawberry, tomato, cherry tomato, grapes and dates in Egypt 3. Beans, tomato, strawberry, sweet pepper, rose and carnation, figs, pomegranates and cactus in Jordan 4. Olive (and olive oil), tomato, strawberry, sweet pepper, apple, rose and rain fed grape in Lebanon Rural non-farm sector 1. Brick making, handicrafts, livestock and other industries 2. Tourism and other services	<i>Consider for detailed study in Phase 3</i>
	The potential consumer welfare gains may be offset by producer welfare losses. This should be considered while arriving at final assessment. The producer:consumer ratio in MPCs is much higher than in Europe, especially if we take into account the unorganised, informal sectors.	<i>Consider for detailed study in Phase 3</i>
	The impact of EMFTA on poor communities' access to and ownership of assets should be looked into, especially of natural assets like land, water and its corresponding welfare implications.	<i>Consider for detailed study in Phase 3</i>
IUCN (via ESCWA)	Great interest in Jordan, Lebanon, Syria and Palestine on the olive oil sector.	<i>Consider sub-regional detailed study in Phase 3</i>

Table 6. Additional comments from Plan Bleu on suggested areas for detailed study in Phase 3 of the SIA

Plan Bleu comment	Contractor's response
All sectors are important but we believe that the agriculture and the services are the two areas where the SIA could be very useful.	
1. For the agricultural sector we think it is very important to go beyond an economic model since in some cases some ex-post observation can be done. The case of tomatoes sector in Sousse could be a good case study.	<i>Agreed. This type of study to be considered for Phase 3.</i>
2. The part for services could really bring value added since not so many studies were produced on that sector. This is also the difficulty because data (except headers of the balance of payment classification statistics) and studies are very rare. What we observe in most of the Meda beneficiaries countries is that the service sector develops in a sort of independent way from the rest of the economy. The service sector (at least the formal one) does not seem to provide all the necessary services to the development of a modern and dynamic economy, e.g. business to business services are very low, as well as	<i>Consider for detailed study in Phase 3</i>

consultancies in all field, intermediation in all kinds.	
3. The financial sector has also this characteristic. That sector is strongly dominated by the traditional banking activity, which has a near monopoly on saving. At same time a lack of competition is observed. Credit by the bank is offered only with very high guarantees. As a result, the access to credit is very difficult or impossible for thousands of small and medium enterprises.	<i>Consider for detailed study in Phase 3</i>
4. Also, transport, energy and construction are very key sectors for the sustainable development of the region. For transportation it is also very linked with the importation of transport equipment. Those three areas are also priority fields of the Mediterranean Strategy for Sustainable Development.	<i>Consider for detailed study in Phase 3</i>
5. Regarding the energy part, trade in renewable energy and services may be linked. The trade of emission rights is also an interesting field. Things are evolving very quickly and it seems that some direct links between the EU emission trading scheme and the MDP emission credit could be formalised. Plan Bleu has a mandate to follow the progress toward the MSSD targets, and is starting for 2006-2007 to focus on "water" and on "energy and climate change". For energy also, we plan to include some activities about carbon finance	<i>Coordinate Phase 3 studies with Pan Bleu, and incorporate available results into Phase 3 final report.</i>

updated 16 March 2006

The contents of this publication is the sole responsibility of the SIA-EMFTA Consortium led by IARC (University of Manchester) and can in no way be taken to reflect the views of the European Union.