

METHODS AND ANALYTICAL TOOLS FOR SUSTAINABILITY IMPACT ASSESSMENT OF TRADE

**Regional Workshop on Trade and Environment Capacity Building,
Muscat, Oman, 25-27 March 2006**

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IARC

- Shifts in trade can deliver shocks as well as opportunities.
- There is no automatic rule that trade liberalisation will lead to greater economic growth, never mind long term sustainability. It can certainly lead to acute short term adjustment costs.
- Whether the short term pain is balanced by a long term gain depends on many different factors, such as the capacity of existing businesses to move up market, or a region to integrate and establish new sources of comparative advantage. In ideal circumstances this leads to the creation of sustainable jobs which make use of more sustainable resources - but there is no economic law that guarantees this happy outcome.
- It is perfectly legitimate to criticise free market capitalism for the damage it can cause to the environment. One has only to think of the destruction of rain forest in Indonesia or Brazil driven by powerful profit incentives, and the unquenchable appetites of consumers in richer parts of the world.
- Very often it is the poorest and those with least social capital and support who are most affected.
- By having this knowledge [*from assessment of the potential impacts*], public authorities are well placed to pursue policies which can help particular sectors and regions adapt to change and mitigate social and environmental costs.

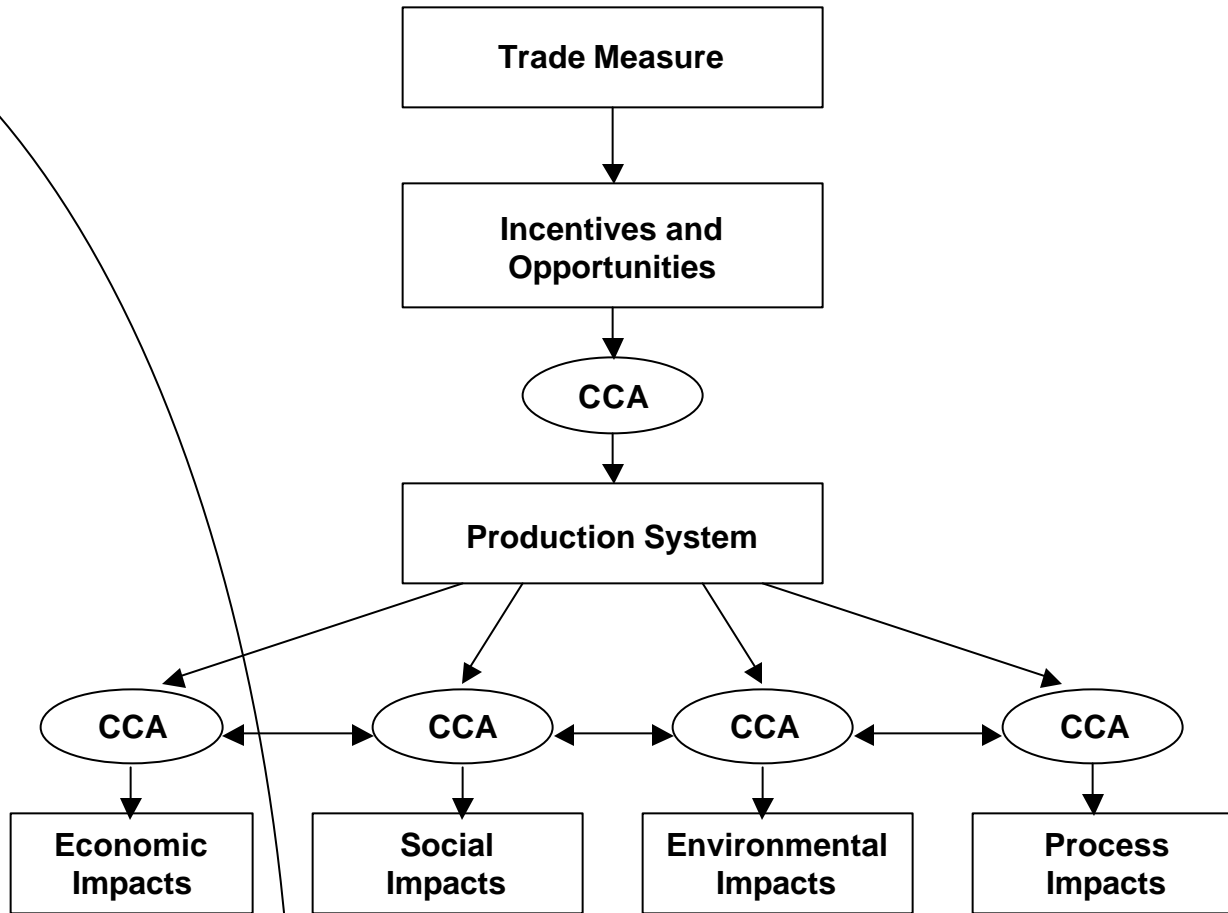
Peter Mandelson
EU Commissioner for Trade
Stocktaking Conference on Sustainability Impact Assessment of Trade
Brussels, 21 March 2006

Mitigation and enhancement

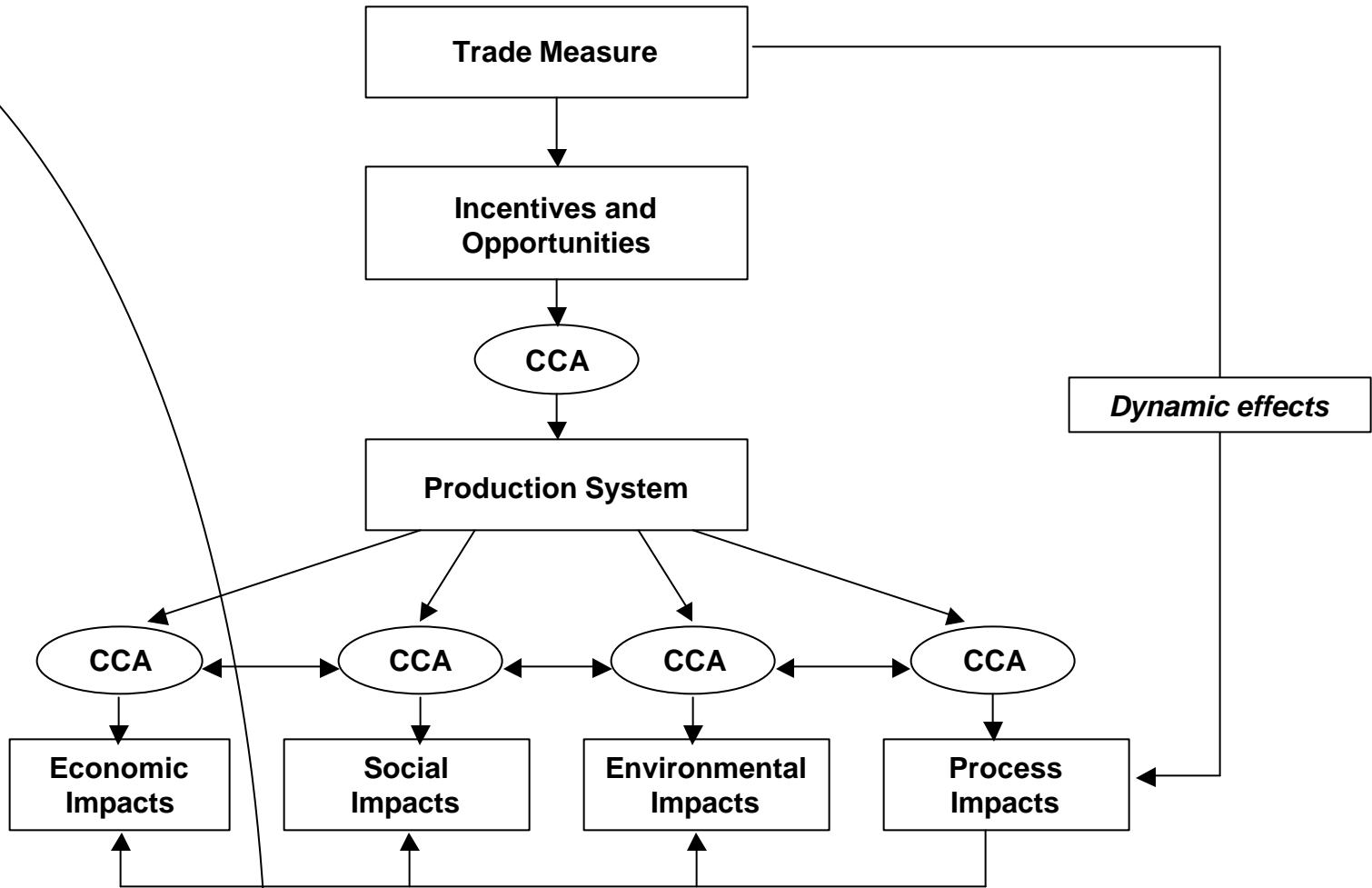
When the potential impacts of trade liberalisation have been identified, measures can be taken to enhance the beneficial effects, and reduce or avoid the adverse ones:

- negotiate variations in extent and timing of trade liberalisation
- develop national policy responses
- build institutional capacity
- negotiate appropriate technical assistance and development aid

Causal chain analysis



Causal chain analysis



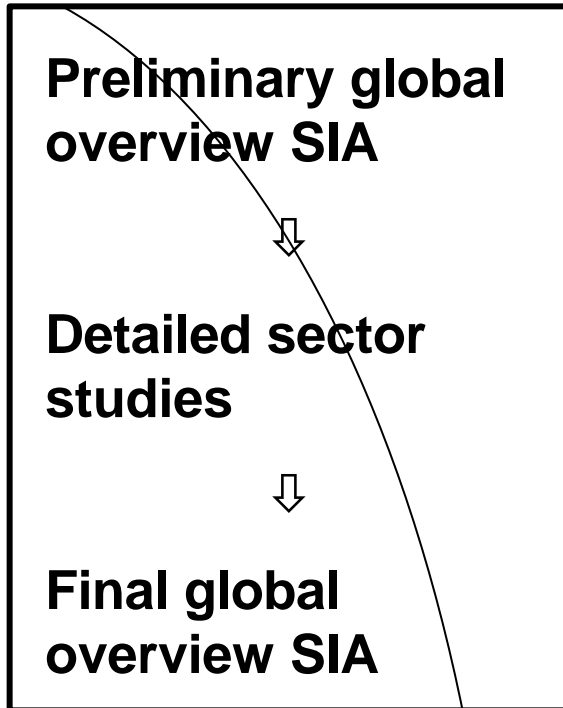
Key components of assessing impacts

- submissions from stakeholders, experts and other interested parties;
- analysis of results of economic modelling studies;
- empirical evidence from the literature;
- causal chain analysis;
- assessment of significance of potential impacts (e.g. in relation to Millennium Development Goals and national sustainable development goals).

Assessment methodology

- **scenarios**
 - baseline, postulated agreements
- **literature evaluation and case studies**
 - empirical evidence and theoretical analyses
- **economic modelling**
 - 'equilibrium' outcomes – static welfare gain
 - changes in production, employment, wage rates, government revenue, exchange rate etc.
- **causal chain analysis**
 - economic, social, environmental
 - adjustment effects
 - acceleration/deceleration of development processes
- **evaluation of significance**
 - relative to base situation (geographical scale, number of people, stress, reversibility)
- **mitigation and enhancement**
 - revisions to negotiating positions and agreements
 - national policy responses
 - development assistance programmes
- **monitoring**
 - linkage to existing monitoring programmes
 - attribution of effects

The Doha Agenda and the SIA programme



Conclusion of negotiations

- Agriculture
- Market access for non-agricultural products
- Services
- Trade and environment
- Dispute settlement
- TRIPS
- WTO Rules (anti-dumping and subsidies; regional trade agreements)
- Implementation issues in developing countries
- Trade facilitation
- (Trade and investment)
- (Competition policy)
- (Transparency of government procurement)
- Other measures

Electronic commerce, Small economies, Debt and finance, Technology transfer, Technical cooperation and capacity building, Least-developed countries, Special and differential treatment

The SIA Process

consultation



⇒ *comments*



⇒ *comments*



⇒ *comments*



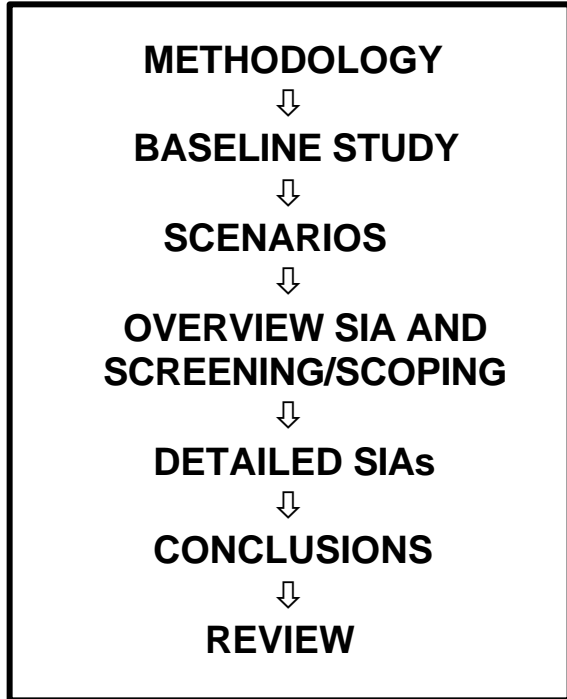
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Phase 1 final report



baseline report



scenario proposals



Phase 2 final report

Barcelona + 10

sector report



recommendations



Phase 3 final report



NEGOTIATIONS AND POLICY-MAKING

Indicators and monitoring

- core “indicators”
 - categorise the types of sustainability impact that need to be considered
 - provide framework for summarising results
- Millennium Development Goals and Targets
- detailed indicators for subsequent monitoring
 - use established indicator sets where relevant
 - define additional indicators for monitoring any significant impacts that are not represented in established indicator sets
- monitoring proposals highlight areas for attention in existing monitoring frameworks

SUSTAINABILITY IMPACT ASSESSMENT OF THE EURO-MEDITERRANEAN FREE TRADE AREA (SIA-EMFTA)

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The SIA-EMFTA project

- **Phase 1 (complete)**
 - **refined the methodology for carrying out the SIA study in the subsequent phases.**
- **Phase 2 (nearing completion)**
 - **identifies the economic, social and environmental baseline;**
 - **identifies the scenarios;**
 - **broad assessment of sustainability impacts of the EMFTA at regional level;**
 - **review of strategic options on how to avoid or mitigate negative impacts and maximise positive ones;**
 - **recommendations for more detailed studies in Phase 3.**
- **Phase 3 (1 year)**
 - **detailed assessment of key impacts;**
 - **proposals for monitoring;**
 - **recommendations for negotiations, implementation of Association Agreements, and MEDA Programmes and other policies within the Euro-Mediterranean Partnership.**

Scenarios

- baseline scenario – without EMFTA
- EMFTA scenario
 - industrial products
 - agriculture
 - services
 - south-south integration

EMFTA - agriculture – environmental impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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>					
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	↑↓	↓

Key findings – impacts in EU

- overall economic benefit (small static welfare gain, potentially large dynamic effects)
- no significant adverse impacts from industrial, services and south-south liberalisation
- agricultural liberalisation has significant local adverse social impacts in southern EU countries
- associated environmental impacts both positive and negative
- further research is needed to evaluate optimal mitigation

Key findings – economic and social impacts in southern and eastern Mediterranean countries

- overall static economic welfare gain (small)
- potential large long term economic gain, strongly dependent on parallel domestic and regional policy measures
- significant adverse impact on unemployment, with associated pressures on wage rates (industrial short term, agricultural long term)
- significant adverse impact on government revenues (and hence on social, educational, health and environmental expenditure)
- 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

Key findings – environmental impacts in southern and eastern Mediterranean countries

- 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.

Key findings – global

- adverse impact on climate change and biodiversity, due mainly to scale effects of increased transport 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

Key findings – impacts on Millennium Development Goals

In the absence of appropriate mitigation and enhancement measures:

- small but significant adverse effect on Goals 1 (poverty), 2 (education) and 4 and 5 (health).
- both positive and negative effects for Goal 7 (environment)
- positive impact on Goal 8 (global partnership)

Impacts on 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)	-	-	-	-

Impacts on MSSD indicators (cont.)

Priority action	Indicators		Impact significance			
			I	A	S	SS
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)	-	↓	-	-
	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)	↑	-	↑	↑↓

Impacts on MSSD indicators (cont.)

Priority action	Indicators		Impact significance			
			I	A	S	SS
Promoting sustainable management of the sea and the coastal 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	-	-	-	-

Additional indicators for monitoring predicted impacts

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, underweight 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)	↑↓	↓	-	-

Additional indicators for monitoring predicted impacts (cont.)

Core indicator	Detailed indicators	Impact significance			
		I	A	S	SS
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	↑↓	↑↓	↑↓	↑↓

Provisional recommendations for policy measures to avoid adverse impacts and enhance beneficial ones

- **trade-related measures**
- **domestic policy in EU (and EU international policy)**
- **domestic policy in MPCs**
- **EU development assistance**

Provisional recommendations – trade-related measures

- **adjust phasing of industrial liberalisation**
 - take account of actual level of unemployment and implementation of tax reforms
- **flexibility in phasing for agriculture, services and south-south liberalisation**
 - link to monitoring of actual conditions for key economic, social and environmental indicators
- **special arrangements for sensitive agricultural products in EU or MPCs**
 - optimise by evaluation of alternative options, e.g. collaborative research into the interacting impacts in both the EU and MPCs
- **special arrangements for services needing strong regulation and/or government subsidies to avoid adverse impacts**
 - e.g. distribution services, environmental services, financial services.
 - link timing of liberalisation to monitoring implementation of the necessary reforms
- **incorporate similar arrangements into south-south agreements**

Provisional recommendations – EU domestic and international policy

- **social policy and environmental policy for affected areas of southern EU countries**
 - in line with the findings of detailed research on agricultural reform (e.g. as developed for CAP reforms, extended to cover the specific impacts of EU-MPC liberalisation).
- **climate change and global biological diversity**
 - reinforce efforts to strengthen **multilateral governance mechanisms** (both would otherwise deteriorate incrementally under the EMFTA scenario that has been assessed).

Provisional recommendations – domestic policy in MPCs

- **assistance to industrial companies to increase competitiveness**
 - mise à niveau programmes
 - 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
 - initiatives to strengthen the responsiveness of education and training systems to changing private sector needs.
- **facilitate transition to commercial agriculture, combined with measures to support livelihoods of subsistence farmers**
 - land reforms, skills training, micro-credit schemes
 - promote development of rural industries and alternative sources of income in rural areas.
- **cooperative investment in regional transport and other infrastructure**
- **develop integrated regional industrial and agricultural policies**
 - take greater advantage of economies of scale within the region, and achieve greater synergy of development strategies.
- **regional institutions to undertake research into common development issues**
 - economic, social, environmental
 - regional and national policy initiatives - e.g. common system of rules of origin, regional approaches to dismantling non-tariff barriers
- **revised provisions for food subsidies**
- **strengthened environmental regulation**
 - water resources, land use planning and controls, 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**

Provisional recommendations – EU development assistance

- **promote collaborative research on industrial competitiveness among all MPCs**
 - cost-effectiveness of past measures and potential future ones to enhance the competitiveness of MPC industrial companies
- **detailed EU-MPC research into impacts of agricultural liberalisation**
 - social and environmental
 - MPCs and southern EU countries.
- **assistance with schemes to disseminate market information**
 - EU product standards and other market access constraints and opportunities.
- **targeted support for stronger environmental management**
 - institutional capacity for integrated economic, social and environmental planning
 - integrated urban-rural and industrial-agricultural planning
- **assistance with strengthening institutional capacity for the use of environmental economics techniques in development planning.**
- **coordination of EU support within the Barcelona process**
 - inter-agency screening of programme proposals against MSSD priority actions
- **further development of the MSSD**
 - take account of continuing research into the economic, social and environmental impacts of greater regional integration.

**Issues and sectors proposed for more detailed study
in Phase 3 of the SIA-EMFTA project**

Proposed issues and sectors

1. south-south liberalisation;
2. environmental services;
3. convergence of environmental and product standards;
4. small scale agriculture, rural livelihoods and the role of the non-farm rural sector;
5. tax reform;
6. urban employment;
7. impact on water resources

Proposed issues and sectors 1

1. South-south liberalisation

Aspects of particular importance include cumulation of rules of origin, common standards, non-tariff barriers, and liberalisation of services as well as goods. 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).

2. Environmental services

This is a major area of the negotiations, with strong links to water resources (item 7).

3. 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.

Proposed issues and sectors 2

4. Small scale agriculture, rural livelihoods and role of 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 product labelling, convergence of standards, geographical indications, quality certification, 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, gender impacts, and effects on specific crops such as olive oil and tomatoes.

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.

Proposed issues and sectors 3

5. Tax reform

The 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.

6. Urban unemployment

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

Proposed issues and sectors 4

7. 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 (item 2 above), and to potential targeting of EU development assistance and EIB funding.

Impacts may be particularly significant for specific crops in particular areas, e.g. oranges in Morocco. 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.

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EMFTA - industrial products – economic impacts

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	↓	-

EMFTA - industrial products – social impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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	↑↓	↑↓

EMFTA - industrial products – environmental impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
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	↓	↓
<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	-	↑↓

EMFTA - agriculture – economic impacts

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

EMFTA - agriculture – social impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Poverty</u>					
consumer prices	MPCs	Increased competition		↑	↑
unemployment	Rural areas of southern EU countries.	Unemployment through MPC competition	Rural development programmes	↓	-
	Egypt, Morocco, Tunisia, others less. Workers in fruits, vegetables, olives	Production changes Commercialisation	Policies encouraging response to market opportunities	↑↓	-
	Egypt, Morocco, others less. Sugar, meat, dairy and traditional agriculture.	Production changes	Support for changes to other products	↓	↓
wage rates	Agriculture, MPCs	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	↓	↓

EMFTA - agriculture – environmental impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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>					
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	↑↓	↓

EMFTA - agriculture – process impacts

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

EMFTA - services – economic impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Real income</u>	EU service providers	Increased exports		↑	↑
	MPCs. Stronger where services share is high and where initial barriers are high (e.g. Tunisia and Egypt). Strongest in Transportation, Finance and Telecom.	Lower prices, higher incomes	Competition policy and effective regulation	↑	↑
	EU and MPCs	Increased growth rate	Other aspects of economic policy and technology policy	-	↑?
<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	↓	-

EMFTA - services – social impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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	↑↓	↑↓

EMFTA - services – environmental impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Biodiversity</u>	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	-	↓

EMFTA - south-south – economic impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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	↑	↑
	All MPCs	Faster economic growth	Other aspects of regional integration	-	↑?
government revenues	Countries with high MPC trade and high tariffs	Reduction in tariffs	Compensation through other revenue generating activities	↓	↓
<u>Fixed capital formation</u>	Similar to liberalisation with EU but smaller	Production changes, firm closures, new investment	Investment climate, firm dynamics, ability to change products	↓	↑
<u>Employment</u>	Mainly Mashreq countries with high MPC trade and high tariffs	Production changes, labour productivity	Wages policy, labour market flexibility, training, long term growth	↓	-

EMFTA - south-south – social impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<u>Poverty</u>					
consumer prices	Countries with high MPC trade	Increased competition		↑	↑
unemployment	Countries with high MPC trade and high tariffs	Production changes	existing unemployment and vulnerability, wages policy, training, workforce mobility	↓	-
wage rates	All MPCs	Better economic performance	Skills and technology development, long term growth	-	↑
<u>Health and education</u>	Countries with high MPC trade and high tariffs	Lower tax revenues	Compensation through other revenue generating activities	↓	↓
<u>Equity</u>	All	Effects are expected to be neutral		-	-

EMFTA - south-south – environmental impacts

Impact	Countries / sectors affected	Causal factors	Factors affecting significance	Potential significance	
				short term	long term
<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	↑↓	↑↓
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	-	↓