

UNITED NATIONS

Economic and Social Commission for Western Asia



## Environmental Goods and Services: Concepts and Definitions

*Regional Workshop on Trade and Environment:  
Developing the Environmental Goods and Services Sector in the Arab Region  
for Transformation into a Green Economy  
16-17 December 2010*

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## EGS Concepts



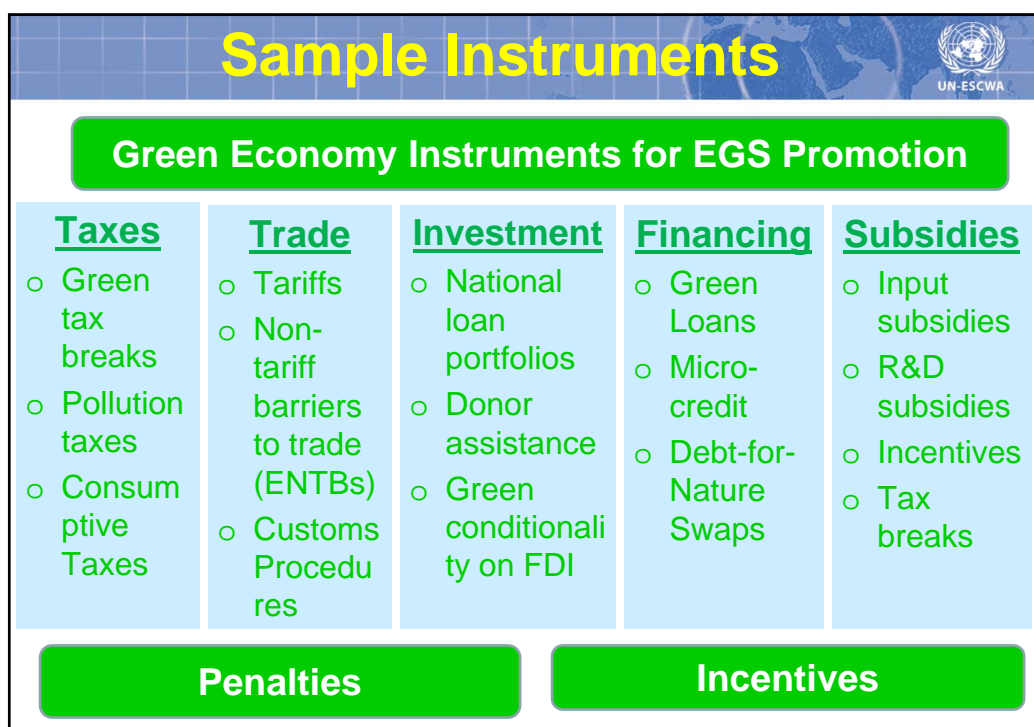
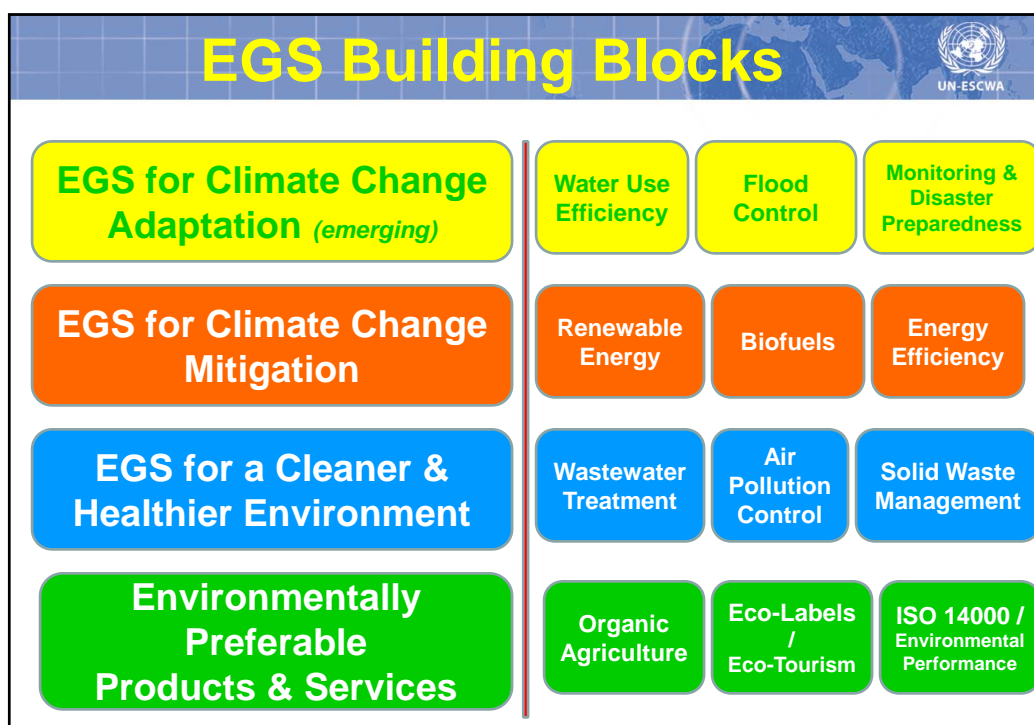
- Environmental goods and services have received increasing attention in international economic and environmental circles in view of the opportunities these sectors present for:

### ***Sustainable Development:***

- Protecting the environment (eco-systems)
- Improving human welfare (MDG7 & environmental services)
- Fostering sustainable livelihoods (green income/employment)
- Supporting sustainable consumption & production patterns

### ***And more recently....***

- Supporting climate change mitigation and adaptation
- Creating opportunities for a green economy, including green trade, green investment, green financing, green jobs, etc.



## Applicable International Principles



### ➤ International Environmental Principles: Rio Principles

- Pollution prevention principle
- Polluter pays principle
- Common, but differentiated responsibility principle

### ➤ International Economic Principles

- No PPM Restrictions based on process and production methods, just on final product
- National treatment principle (same treatment for domestic & imported products)
- Non-discrimination principle (equal among like imports)
- Eliminate quotas (bans)
- Problem dealing with dual-use of potential EGs

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## Implications



*What do these Green Economy EGS policy tools & instruments for trade, investment & financing mean in practical terms for Arab Countries?*

Key concerns related to the debate between:

- Environmental protection or green protectionism?
  - Green economics and green washing?
  - Economic valuation of environmental resources or profit making?
  - Limiting EGS to Climate Change Instruments or supporting SD and the environment at large?
- Source of debate between developed/industrialized countries and developing countries (G77+China)

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## Who Benefits? Who Pays?



- **Green Subsidies?** – benefits richer countries
- **Green Taxes?** – penalizing poor environmental performance, but compliance requires human, technical, financial and technological capacity
- **Green Tariffs?** – opens door for Green Protectionism?
- **Non-Tariff Barriers to Trade?** – Strengthening environmental standards, certification, accreditation: potential for Unlevel Playing Field

Assessing costs and benefits is fully subject to the definitions: Details determine the outcome

## Defining EGS for Trade & Investment



### WTO Doha Development Agenda (2001)

- Trade liberalization of environmental goods and services (EGS) called for in Paragraph 31 and states:

**31. *With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:***

- ***(iii) the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.***

32. We instruct the Committee on Trade and Environment, in pursuing work on all items on its agenda within its current terms of reference, to give particular attention to: (i) effect of environmental measures on market access; (ii) IPR; (iii) eco-labeling

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## What are Environmental Services?



- The **definition** of environmental services under discussion in WTO negotiations is agreed upon.
- **United Nations Central Product Classification (Provisional CPC)** source of agreed definition.
- Under the CPC, the Environmental Services sector comprises:
  - **Sewage services**
  - **Refuse disposal services**
  - **Sanitation and similar services**
  - **Other** (cleaning services for exhaust gases, noise abatement services, nature and landscape protection services, and other environmental services not elsewhere classified)

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## Market Opportunities Evident



- **Global market growth for EGS:**
  - \$360 billion (1990)
  - \$550 billion (2001)
  - \$630 billion (2004)
- **Developing Countries** accounted for \$82 billion = 13% of Global EGS Market in 2004, and is growing.
- **Middle East** market valued at \$9.7 billion (2004)
  - Equals about 1% of regional GDP
  - Accounts for 1.6% of Global EGS Market
  - About \$4.4 billion spent on Environmental Goods
  - About \$5.3 billion spent on Environmental Services

\* Source: Environmental Business International, Inc.

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## The Middle East ES Market



Environmental Services Sector	US\$ million
Water treatment	600
Solid waste management	1,400
Remediation and industrial services	2,400
Hazardous waste management	400
Analytical services	100
Engineering and consulting services	400

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## Green Investment Opportunities



- Green investment opportunities for green economy being pursued in Environmental Goods & Services
  - In developed countries:
    - Energy-efficient buildings
    - Sustainable transport
    - Renewable energy
  - In developing countries:
    - Sustainable agriculture
    - Water resource management
    - Water supply & sanitation
- **Opportunities available across sectors in both developed and developing countries (though unclear what definition used by HSBC or countries).**

*As of September 2009, HSBC Global Research reported that green investments represented at least 15 % of global economic stimulus packages*

- **China: 38%**
- **Germany: 12%**
- **United States: 25%**
- **South Korea: 80%**

### Sources:

Robins, N.; Clover, R.; Singh, C.; 2009: *A Global Green Recovery ? Yes, but in 2010*, HSBC Global Research, August 2009, London, UK.

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## Dynamic Gains from ES Liberalization



### Environmental services trade & investment liberalisation can:

- Increase Foreign Direct Investment inflows, technology transfer
  - Turnkey projects, public/private partnerships (outsourcing)
  - R&D, innovation, customization
- Improve services infrastructure
  - water supply, sanitation, sustainable transport
- Improve local conditions for health and tourism
- Yield economic spillovers,
  - i.e., increase demand for local capital, local inputs, locally sourced services and generate employment opportunities, create new SMEs
- Reduce costs for consumers due to increased efficiency
- Improve range and quality of services offerings
- Free-up government budget for other expenditures

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## Dynamic Losses from ES Liberalization



### Environmental services trade & investment liberalisation may also:

- Not generate desired spillovers effects or employment opportunities for nationals if commitments & obligations are too loosely structured.
    - Labor mobility policies and national employment requirements part of ES debate
  - Result in higher costs to consumers for environmental services
    - Private sector participation requires regulatory oversight to ensure equity & accessibility
    - Prevent universal access to essential basic services; state-owned utilities operated based on welfare considerations, not necessarily on profit or cost-recovery basis
  - Increase unemployment and need for retraining due to employment dislocations and streamlining of redundant utilities workers
  - Displace emerging national firms unable to compete with multinationals from participating in the sector
- **Gradual and measured liberalization and support measures is thus needed to avoid undesired social consequences and allow local service suppliers (and associated environmental goods providers), especially SMEs, to benefit from new market opportunities.**

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## Outlook for Arab Countries



- Tendency towards state-owned monopolies and service providers in Arab Countries [sewage, water treatment and distribution, refuse disposal infrastructure]
- In most cases liberalization will require privatization as a first step – proper timing & sequencing of steps must be well-planned
- Need to establish regulatory, competition and enforcement capabilities for private sector
  - Regulatory objectives: rates, universal access, standards & quality of the services, fair competition, and mitigating negative externalities
- Full-cost recovery from consumers may be long-term goal – need for subsidization or cross-payments for low income population
- Small size of some national ES markets may favor public-private sector partnership approaches to privatization followed gradually by liberalization as national firms may not otherwise materialize
- A “one size fits all approach” does not exist for Green Economy ES
  - the best policies will be service-specific & country-specific

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## What are Environmental Goods?



- The Doha Declaration calls for negotiations on “the reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services”
- ***But did not define what these goods are !***
- The WTO Committee on Trade and Environment (CTE) still seeking to define and establish consensus on what are Environmental Goods

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## Types of Environmental Goods



- There are two broad classes of environmental goods under discussion in WTO negotiations
  1. **Manufactured goods and chemicals used directly in the provision of environmental services** (Class A goods)
  2. **Raw and manufactured goods not associated with providing environmental services, but they have reduced negative, or positive, effects on the environment and which can thus be considered environmentally preferable products (EPP)** (Class B goods)
- *Climate Change negotiations might lead to new goods to be included in the definition and lists being negotiated before the WTO (trade-related MEAs)*

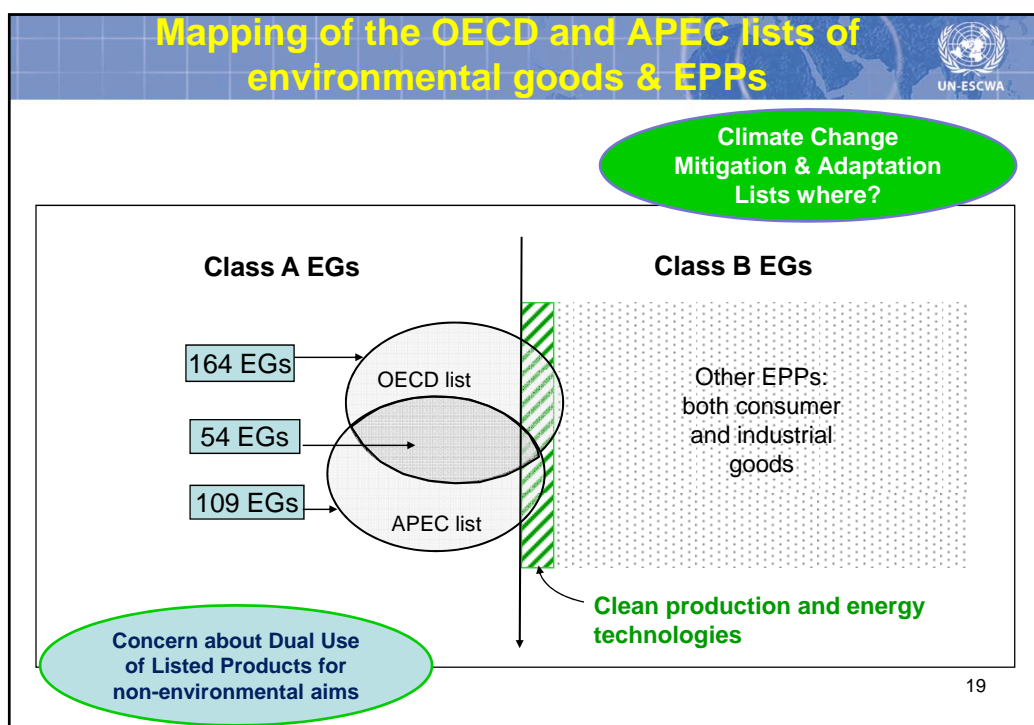
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## ESCWA EGS Study



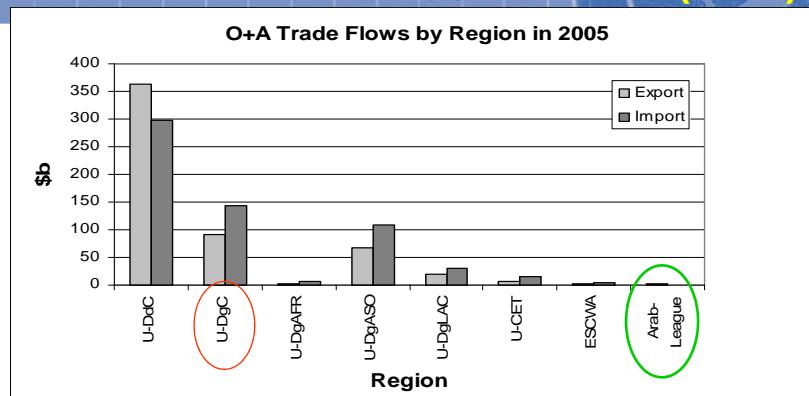
- ESCWA was requested by member states to examine the potential liberalization of EGS as part of the priorities identified during regional T&E consultations. Focused on:
  - **OECD (O) and APEC (A)** lists of industrial EGs containing the Class A EGs are proposed mainly by developed country members (**O+A list**)
  - UNCTAD developed a list of **environmentally preferable products (EPP)** Class B EGs that excludes goods that are not characterized as such based on their process and production methods (PPMs) (**EPP-Core list**)
- ESCWA study then expanded to respond to a request by the League of Arab States Council of Arab Ministers Responsible for the Environment (CAMRE) in 2006 for:
  - Additional analysis at the Arab regional level
  - Trade analysis of the **Arab Reference Lists on Environmental Goods (ARL I-IV + V)**, which was developed as guidance by the CAMRE Technical Secretariat to assist Arab States.

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- ## Abbreviations
- UN-ESCWA
- U-DdC = Developed Countries
  - U-DgC = Developing Countries
  - U-DgAFR = Developing Africa
  - U-DgASO = Developing Asia and Oceania
  - U-DgLAC = Developing Latin America and the Caribbean
  - U-CET = Countries with Economies in Transition in Eastern Europe and Central Asia
  - Arab League = Countries that are members of the LAS, which comprise the Arab region
  - ESCWA = ESCWA Member States
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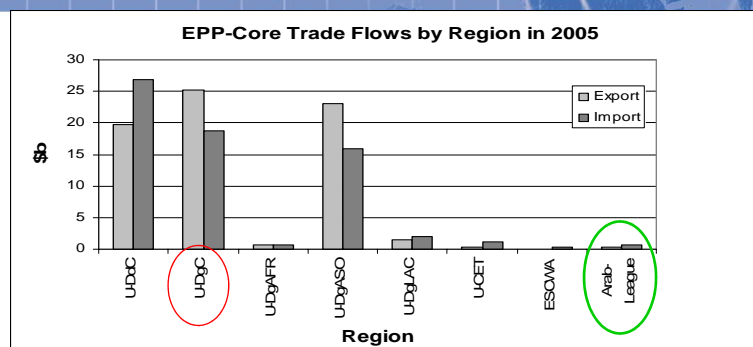
## O+A list trade flows with World (2005)



Year	2005			
EG Group	O+A			
Partner	World			
Trade Value (\$ '000)				
Reporter	Export	Import	% World Exports	% World Imports
U-DdC	362,043,225	297,252,673	79	65
U-DgC	91,220,870	144,068,787	20	32
U-DgAFR	3,144,970	6,389,380	1	1
U-DgASO	67,797,043	108,052,322	15	24
U-DgLAC	20,278,856	29,627,085	4	7
U-CET	5,850,509	14,237,984	1	3
World	459,114,604	455,559,443		
ESCWA	1,335,053	4,960,679	0.3	1.1
Arab League	1,622,137	7,255,448	0.4	1.6

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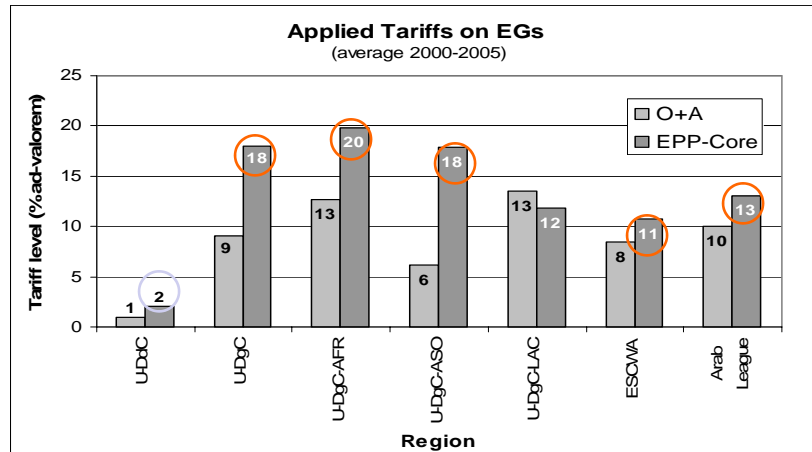
## EPP-Core trade flows with World (2005)



Year	2005			
EG Group	EPP-Core			
Partner	World			
Trade Value (\$ '000)				
Reporter	Export	Import	% World Exports	% World Imports
U-DdC	19,773,456	26,833,709	44	57
U-DgC	25,228,875	18,675,660	56	40
U-DgAFR	720,579	641,205	2	1
U-DgASO	23,094,403	15,978,672	51	34
U-DgLAC	1,413,893	2,055,783	3	4
U-CET	370,861	1,202,666	1	3
World	45,373,192	46,712,036		
ESCWA	77,262	357,046	0.2	0.8
Arab League	269,905	601,254	0.6	1.3

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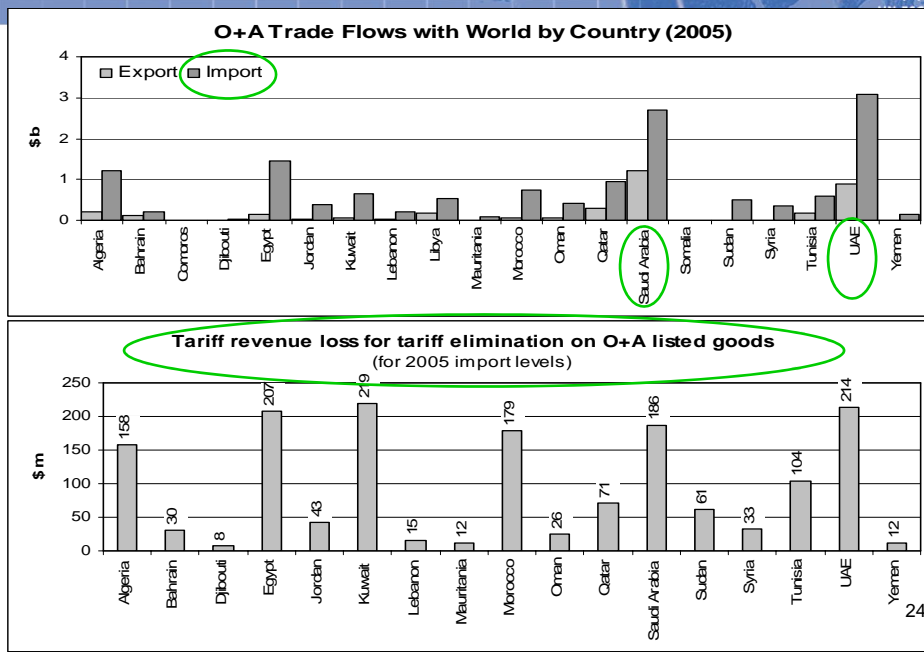
## Regional tariff levels on environmental goods (2000-2005)



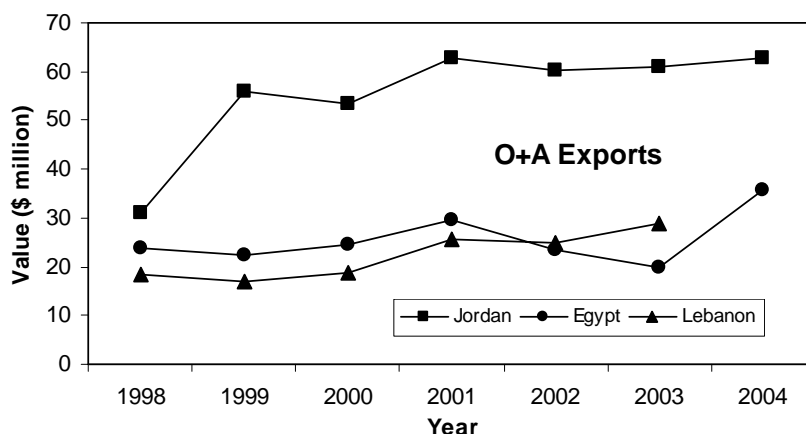
**Applied Tariffs higher on EPP-Core List Goods in Most Regions**

**Tariffs not very high, and already nearly zero in Developed Countries**

## For ESCWA and Arab Countries



## Growth in O+A EG Exports in selected ESCWA Countries



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## LAS Arab Reference List (ARL) on EG



- **ARL I** Includes primary environmental goods of high commercial and developmental priority in the Arab countries that should be introduced into the WTO negotiations. [List contains 145 EGs]
- **ARL II** Includes primary environmental goods for which custom tariffs should be gradually reduced according to the needs of developmental programs and the economic situation in Arab countries. [234 EGs]
- **ARL III** Includes supplementary environmental goods in the Arab countries which are of limited environmental use in comparison with other uses, but are of interest to the Arab region [55 EGs]
- **ARL IV** Includes supplementary environmental goods of importance in least developed Arab countries, the use of which takes into account the compliance with international health and environment standards. [16 EGs]
- **ARL V** Includes environmental goods in the Arab countries that should not be opened to trade liberalisation commitments due to inherent environmental, health, safety, economic and technical concerns associated with their use and management. [List contains 387 goods.]
  - ARL V includes goods in which trade between the Arab countries is *prohibited* under the Greater Arab Free Trade Agreement (GAFTA) for environmental, health and safety reasons.

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Positive criteria justifying for the retention of proposed environmental goods on the Arab List	
A	Support for development programs (especially those involving environmental services) and for the provision of imported environmental goods needed for such programs.
B	Increased <u>export opportunities</u> for Arab countries in international markets.
C	Use of <u>modern technologies</u> for the production of environmental goods in the Arab countries.
D	Opportunity to <u>transfer international experience and knowledge</u> into production processes of the Arab countries.
E	Encourage <u>investment in R&amp;D</u> for goods produced in Arab countries that have high export potential.
F	Encourage Arab countries' exporters to use <u>clean technologies</u> to satisfy environmental requirements of importers.
G	Achieve environmental commitment by national production facilities to produce environmental goods at low prices.
H	Achieve the objective of preserving resources and the environment as a result of the increased production of environmental goods.
I	Supply the needs of Arab countries in imported environmental goods at adequate prices.
J	Supply information technology and environmentally sound production technologies in the areas of <u>renewable energy and genetic engineering</u> .
K	Increase public environmental awareness by expanding <u>eco-labelling</u> and improving the product lifecycle of environmental goods.
L	Unify and use internationally-adopted <u>standards for environmental products and environmentally sound production methods</u> .
M	Liberalise trade in environmental goods of priority to developmental activities in the developing Arab countries.
N	Liberalise trade in <u>environmental goods of priority to developmental activities in the least developed Arab countries</u> .

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Negative criteria justifying for the exclusion of proposed environmental goods	
O	Possible harmful impact on health and the environment in the Arab countries as a result of liberalisation of trade in harmful materials.
P	Pressure on local industries as a result of competition by imported environmental goods having lower price and better quality.
Q	Decrease in customs resources as a result of the increase in exemptions provided to imported environmental goods.
R	Expansion of customs exemptions for multi-use products that do not serve the direct objectives of environmental protection.
S	Use environmental priority as an argument to limit export of Arab goods to external markets.
T	Give preference to imported low-price environmental goods that are unsuitable for the local environment in least developed countries.
U	Conflict between the requirements of free trade in environmental goods with trade commitments of multi-lateral agreements.
V	Goods with no environmental or economic importance for Arab countries.

List developed by environmentalists with a view towards trade-related MEAs.

## Positive & Negative ARL EGs



- ARL I, II, III and IV, which are 'positive EG lists' – i.e., lists of goods for which trade liberalisation can be considered
- ARL V is a 'negative EG list' – i.e., a list of goods for which trade should be restricted in order to meet regional environmental and sustainable development objectives. The introduction of a negative list is significant, as no such list has been introduced in the WTO negotiations thus far.

Arab ARL V Waste Imports (2005)			Arab ARL V Waste Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
711290	Waste/scrap, precious metals except pure gold/platinum	35	3915	Waste, parings and scrap, of plastics	54
3915	Waste, parings and scrap, of plastics	6	711210	Waste or scrap containing gold	52
711210	Waste or scrap containing gold	3	711220	Waste/scrap containing platinum	49
720441	Waste from the mechanical working of iron or steel nes	2	720441	Waste from the mechanical working of iron or steel nes	29
854810	Waste & scrap of primary cells	2	711290	Waste/scrap, precious metals except pure gold/platinum	13
2619	Waste from the iron or steel industry	1	854810	Waste & scrap of primary cells	5
711220	Waste/scrap containing platinum	0	2619	Waste from the iron or steel industry	3
Total		50	Total		206

Interesting that LAS Countries have a trade **SURPLUS** in ARL V Goods

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## Arab region's top traded goods included in ARL I

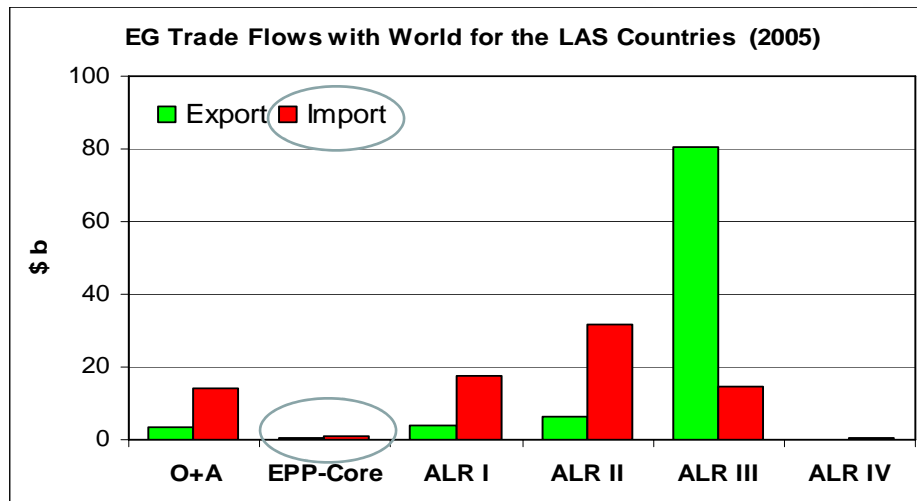


Top ARL I Imports (2005)			Top ARL I Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
48	Paper & paperboard, articles of pulp, paper and board	3,469	48	Paper & paperboard, articles of pulp, paper and board	786
8413	Pumps for liquids	1,817	740400	Copper/copper alloy waste or scrap	391
8421	Liquid, gas centrifuges, filtering, purifying machines	1,120	760200	Waste or scrap, aluminium	301
841199	Parts of gas turbine engines except turbo-jet/prop	1,025	3920	Plastic plate, sheet, film not cellular, reinforced	208
841182	Gas turbine engines nes of a power > 5000 kW	618	841199	Parts of gas turbine engines except turbo-jet/prop	198
841480	Air or gas compressors, hoods	591	841182	Gas turbine engines nes of a power > 5000 kW	163
841370	Centrifugal pumps nes	559	8421	Liquid, gas centrifuges, filtering, purifying machines	123
392690	Plastic articles nes	547	8413	Pumps for liquids	105
3920	Plastic plate, sheet, film not cellular, reinforced	510	841430	Compressors for refrigerating equipment	101
382490	Chemical preparations including natural products	487	382490	Chemical preparations including natural products	98
730410	Pipes, line, iron or steel, for oil or gas pipelines	470	392690	Plastic articles nes	93

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## Net Arab Region Trade in EGs



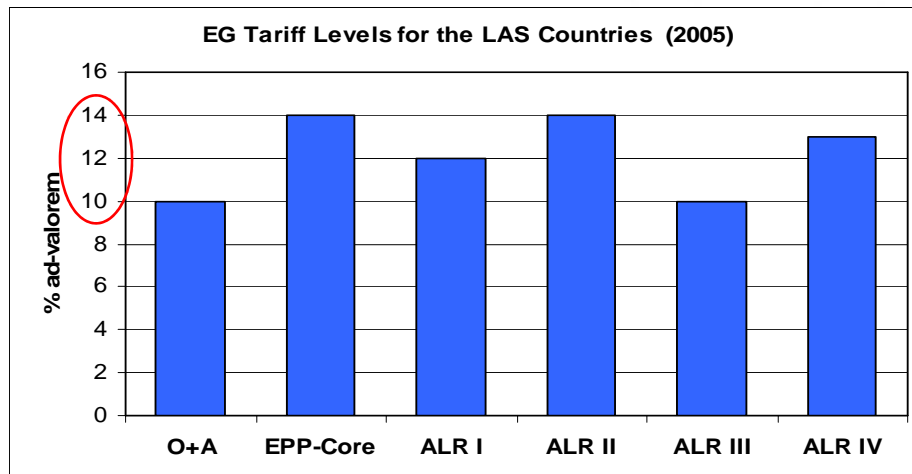
**LAS countries have a trade deficit in all EG groups except ALR III**

## Arab Region's top traded goods included in ARL III



Top ARL III Imports (2005)			Top ARL III Exports (2005)		
HS Code	Description	Import (\$m)	HS Code	Description	Export (\$m)
271000	<b>Petroleum oils other than crude</b>	9,251	271000	Petroleum oils other than crude	45,374
7308	Structures, parts of structures of iron or steel, nes	1,097	271111	<b>Natural gas, liquefied</b>	<b>16,631</b>
271113	Butanes, liquefied	508	271112	Propane, liquefied	8,620
7318	Screws, bolts, nuts, rivets, washers, etc, iron, steel	333	271113	Butanes, liquefied	4,224
9032	Automatic regulating or controlling equipment	314	271121	Natural gas in gaseous state	2,062
903180	Measuring or checking equipment, nes	187	290511	Methyl alcohol	1,285
732111	Cooking appliances for gas fuel, etc, iron or steel	184	7308	Structures, parts of structures of iron or steel, nes	356
7312	Stranded steel wire, cable/etc, no electric insulation	181	7317	Nails, staples, etc, iron/steel, not office stationary	85
271111	Natural gas, liquefied	173	121190	Plants & parts, pharmacy, perfume, insecticide use nes	67
730820	Towers and lattice masts, iron or steel	144	903180	Measuring or checking equipment, nes	55
903289	Automatic regulating/controlling equipment nes	138	9032	Automatic regulating or controlling equipment	32 <sup>45</sup>

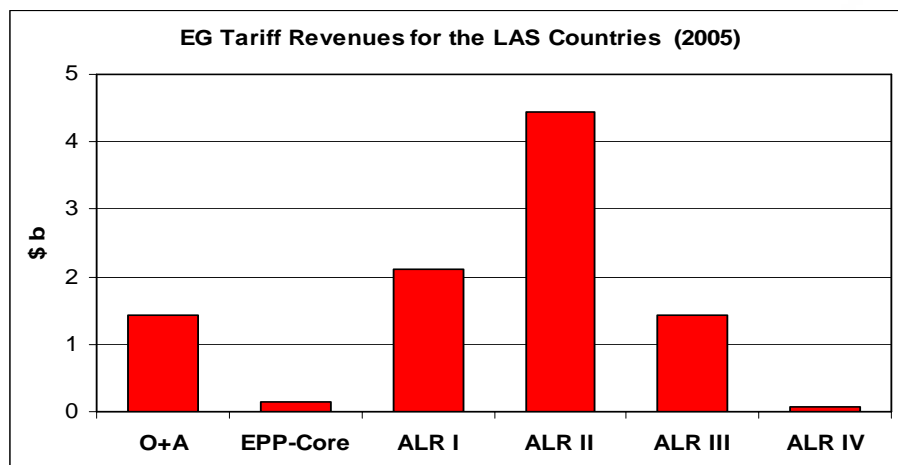
## Tariff Levels



LAS countries have moderate tariff levels for EGs

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## Tariff Revenue Losses



Impacts are better examined at the country level

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## Conclusions



- While finding & report are Regional in Nature, scale and scope of impacts remains country specific.
- **ESCWA has prepared specific Country Briefs for ESCWA and Arab Countries** for the:
  - O&A List
  - EPP Core List
  - ARL I-IV
- **Briefs consider for each EG grouping scenario the country's:**
  - **Top imports**
  - Top exports
  - Tariff levels
  - National figures are provided as well as comparison to regional averages
- Available for representatives of country delegations

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## Recommendations



- EGS negotiations for a green economy should ensure that products of export interest are included in the ultimate list of goods and services proposed for liberalisation.
- Policy instruments for implementation should be carefully considered. For instance, phasing of tariff reductions should seek to:
  - Reduce shocks on government revenue
  - Not disadvantage local industries compared to imports
- **Seek concessions from developed countries in:**
  - Technology transfer, financing, investment, training
- **Make sure your concerns are identified through regional and national trade analysis and consultation with national stakeholders**
  - Government, private sector (producers), civil society (consumers)

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***Thank you.***



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