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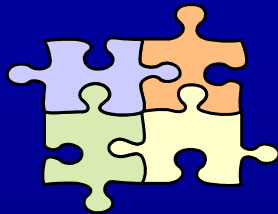
Trade Implications of Environmental Requirements

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Outline of Presentation

- Part I** **Conceptual Framework for examining Standards and Technical Regulations**
- Part II** **Environmental Requirements Impacting the Agro-Food Sector**
- Part III** **Environmental Requirements Impacting the Textile/Garment Sector**
- Part IV** **Environmental Requirements Impacting Selected Other Sectors**



PART I:

Conceptual Framework

Sources of Environmental Requirements

Four Levels of Analysis

- 1. Product Requirements**
 - For example, maximum contents requirements of carcinogenic or radioactive elements in foods or textiles; packaging requirements
- 2. Production & Process Methods (PPMs)**
 - For example, water effluent standards, stack emissions on air pollution; use of organic inputs.
- 3. Conformity Assessment**
 - To prove conformity with product or PPM requirements.
 - Requires access to accredited laboratories (usually abroad), understanding of certification and testing procedures; increases the cost of compliance.
- 4. Dispute Resolution**
 - Public International Law = Inter-governmental dispute resolution – could go to WTO (highly politicized)
 - Private contract law = between firms; suppliers often disadvantaged.

Environmental Requirements

Environmental Requirements may be:

- **Regulatory** (*mandatory technical regulations*)
 - Required by governments and enforced by customs administrations and ministries (e.g., health, environment, trade);
 - For WTO Member States, these measures must respect WTO Agreements.

- **Voluntary** (*standards*)
 - May be issued by Governments
 - May be required by private importers and/or retailers via contracts and pre-shipment inspections.
 - Often time cater to Niche Markets generated by consumer demand.

Conceptual Framework

Thus, when considering the impact of environmental measures on output or trade, and possible policy implications and responses, one might think in terms of the following box

	Product Standards	Process & Production Methods	Conformity Assessment	Dispute Resolution
Regulatory Measures	<ul style="list-style-type: none"> ● Environment, Health & Safety Laws 	<ul style="list-style-type: none"> ● Compliance with Domestic Environmental Laws 	<ul style="list-style-type: none"> ● Laboratory Accreditation, testing and certification 	<ul style="list-style-type: none"> ● WTO ● Regional or bilateral negotiations
Voluntary Measures	<ul style="list-style-type: none"> ● Industry Standards & Specifications 	<ul style="list-style-type: none"> ● Eco-labeling ● Niche Markets 	<ul style="list-style-type: none"> ● Eco-labeling ● Importer testing 	<ul style="list-style-type: none"> ● Private Contract Law

Common Components of a Technical Regulation

A. Preamble

- Reference source of decision-making
- **Reference historical documents**
- Reference principles guiding regulation
- **Justify need for regulation**

C. Annex

- Techniques/methods
- Exceptions
- Forms/templates
- Lists (products/countries)
- Correlation table if needed between different rules

B. General provisions

- Objective
- **Definitions**
- Scope (exemptions or in annex)
- **Obligations/Responsibilities**
- Procedures
- **Consultation/Notification Provisions**
- Authorization provisions/consent
- **Monitoring/Conformity Assessment**
- Review period/Safeguard Clause
- **Reporting requirements**
- Penalties
- **Legal provisions**
- Supersedes/repeals previous regs
- **Transposition (e.g., between old/new laws)**
- Entry into Force (date and place)
- **Signatures**

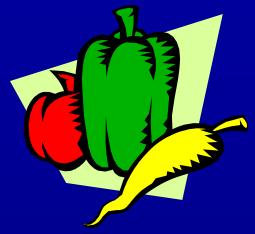
Notifications to the WTO

Objectives and Rationales	Notifications received in 2000
Consumer Information, Labelling	59
Prevention of Deceptive Practices and consumer protection	55
Protection of Human Health or Safety	254
Protection of Animal or Plant Life or Health	10
Protection of the Environment	58
Quality Requirements	61
Harmonization	74
Adaptation to New Domestic Law and Technology	80
Lowering or Removal of Trade Barriers	13
Trade Facilitation	6
Cost Saving and Increasing Productivity	6
Others	43
Not specified	6
Total	725

Source: WTO



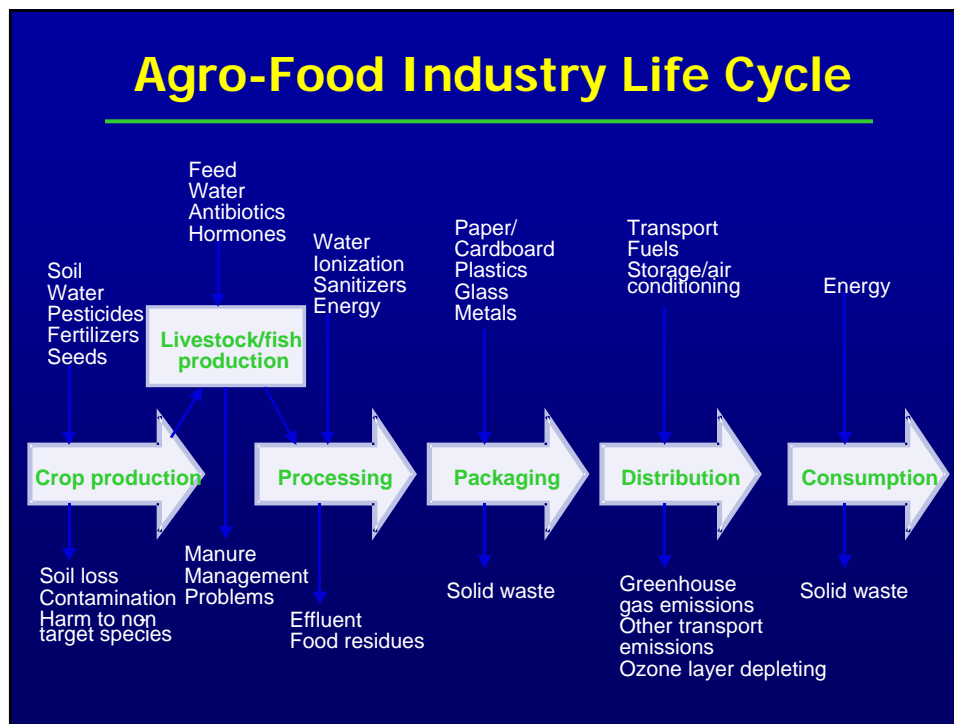
Questions?



PART II:

Environmental Requirements Impacting the Agro-Food Sector





ESCWA Study on the Impact of Environmental Requirements on Selected Sectors

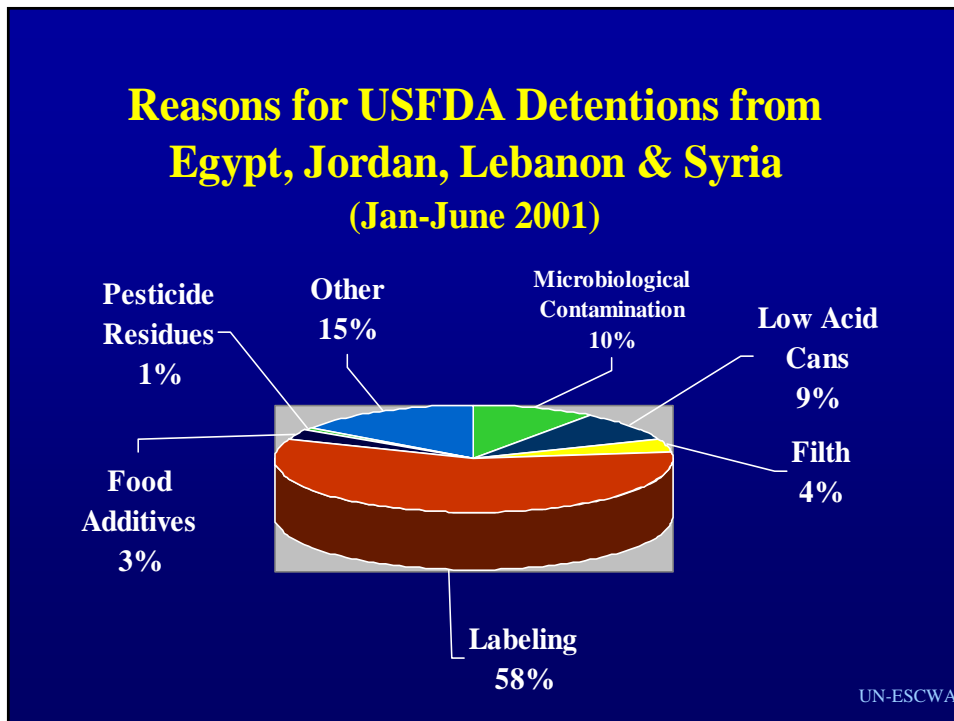
Study based on:

- **Survey** of a sample of firms in Egypt, Jordan, Lebanon, Syria conducted to identify some of the major environmental regulatory constraints faced by private sector exports in the region (in 2001).
- **Review** and compilation of USFDA detentions of agro-food exports from ESCWA member countries, which were posted on the USFDA “Operation and Administration System for Import Support” (OASIS)
↳ see <http://www.fed.gov.oasis>
- **Interviews** with chambers of commerce and ministries, since info on trade detentions and delays to/from Arab countries poorly documented.

FINDINGS

Environmental Measures most affecting the Agro-Food Industry in ESCWA Countries

	Product Standards	Process & Production Methods	Conformity Assessment	Dispute Resolution
Regulatory Measures	<ul style="list-style-type: none"> Expiry date Additives Labeling Packaging Pesticides residues 	<ul style="list-style-type: none"> Sterilization Sanitation GMO certification 	<ul style="list-style-type: none"> High cost of product testing Limited number of accredited labs in region 	<ul style="list-style-type: none"> Communication links between firms & trade ministries poor Politicization of inter-government dispute settlement
Voluntary Measures	<ul style="list-style-type: none"> Eco-labeling Packaging (recycled content) 	<ul style="list-style-type: none"> ISO HACCP Sanitation Eco-labeling 	<ul style="list-style-type: none"> Inspection by importer Cost of testing Cost of maintaining conformity with eco-label 	<ul style="list-style-type: none"> Ag. exporter usually bares cost of delayed shipments & storage Time/cost needed to enforce contracts



Additional Findings from ESCWA Study

- **Exporters in ESCWA-MC often find environmental requirements & customs procedures more troublesome in Arab countries than in EU & US markets.**
 - Lack of access to full, accurate and timely information regarding reason for detention or return of shipment major complaint by regional agro-food exporters to Arab markets; also concerns regarding TBTs.
 - Question non-discrimination of regulatory enforcement between imports and domestically produced products – WTO dispute potential.
- **Agro-food exporters feel threatened by informal sector and cottage industries producing for domestic market only, since do not need to comply with environmental requirements in foreign destination markets**
 - Linkage of compliance and enforcement to competitiveness; exporters must be registered and are more regulated, while firms producing only for domestic market not necessarily registered or regulated.

European Union Rapid Alert System Case Study: Aflatoxins and Food Safety

- **Aflatoxins are a naturally-occurring toxin produced by mold that develops on nuts, cereals, dried fruits, apples and legumes under certain environmental conditions.**
- **Crops which are frequently affected include:**
 - Cereals (maize, sorghum, pearl millet, rice, wheat),
 - Oilseeds (peanut, soybean, sunflower, cotton),
 - Spices (chile peppers, black pepper, coriander, turmeric, ginger), and
 - Tree nuts (almond, pistachio, walnut, coconut).
 - The toxin can also be found in the milk of animals which are fed contaminated feed.
- **Shown to be carcinogenic, but testing continues.**
- **EU has set no Tolerable Daily Intake level for Aflatoxins, which requires the lowest possible level of concentration.**

European Union Rapid Alert System Case Study: Aflatoxins and Food Safety

Implications for international trade

- Aflatoxins detected in pistachios nuts and melon seeds exported from Iran to the EU.
- EC Decision of 22 July 2003 on special conditions for importing pistachios and pistachio products from Iran, amended EC decision from 1997 on regular testing
- In April 2004, Aflatoxins in pistachio nuts from Iran continued to be notified to the Rapid Alert System despite issuance of new EC Decision & procedure (Spain, Luxemburg, Lithuania).
- Similar problems observed in Egypt and Syria
- Likely to be observed in other hot and humid countries exporting like commodities in the region with inadequate food storage infrastructure.

EU Rapid Alert System

Country of Origin	Date	Notified by	Product	Reason for notification
Egypt	26/01/2005	Italy	Coriander seeds	Too high count of Enterobacteriaceae in coriander seeds
Egypt	02/03/2005	Greece	Groundnut kernels	Aflatoxins in groundnut kernels
Egypt	26/01/2005	Italy	Groundnuts in shell	Aflatoxins in groundnuts in shell
Egypt	14/01/2005	Italy	Peanuts	Aflatoxins in peanuts
Lebanon	11/03/2005	Finland	Sesame paste	Salmonella Montevideo in sesame paste
Lebanon	24/01/2005	UK	Sojok spices	Unauthorised colour Sudan 4 in sojok spices
Lebanon	12/01/2005	Sweden	Sweet Curry	Colour Sudan 1 in sweet curry
Syria	11/03/2005	Cyprus	Peanuts	Aflatoxins in peanuts
Tunisia	26/01/2005	Italy	Spices & sweet peppers	Bacillus cereus in spices & sweet peppers

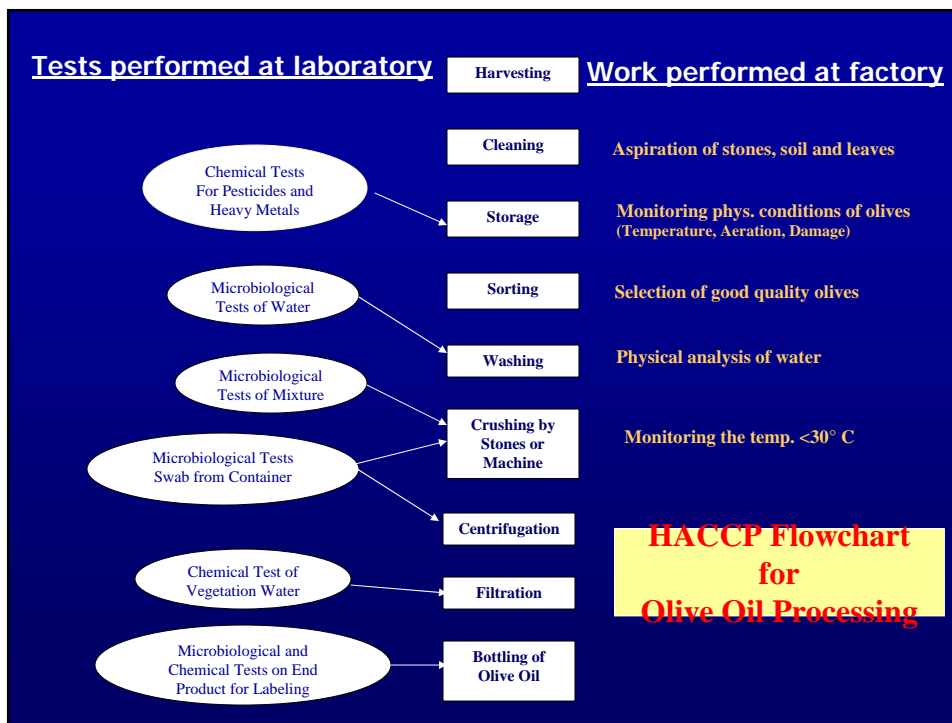
Source: <http://europa.eu.int/comm/food/food/rapidalert/reports/>

HACCP Principles

Hazard Analysis and Critical Control Point system

The HACCP system consists of seven major principles:

1. Conduct a hazard analysis
2. Determine the Critical Control Points
3. Establish critical limits
4. Establish a system to monitor control of the CCP by scheduled testing and observations
5. Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control
6. Establish procedures for verification the HACCP system is working effectively
7. Establish documentation concerning all procedures and records appropriate to these principles and their application



		Type	Tests at Laboratory Level	Unit Price \$
		<p style="text-align: center;">Tests to be Performed during Olive Oil Processing</p> <p>Notes:</p> <ul style="list-style-type: none"> • Highlighted tests are performed periodically, at least once per month. • Maximum cost is \$765 and minimum cost is \$ 705. • 1,2,3,4,5 & 6 are shown in the flowcharts of Olive Oil Processing. • The prices mentioned in the table are at cost, based on cost of testing in Lebanon (2004) and are in US\$ 	1	Chemical Tests of Olives at storage
	Pesticides Residues			
	Heavy Metals: Lead, Copper, Iron		90	
2	Microbiology test for Water		30	
	Total Count + Coliforms			
3	Swabs for Microbiology from Containers of: Crushing		30	
	Centrifugation		30	
4	Microbiological Test of mixture		30	
	Total Count + Coliforms			
	Yeast & Molds		30	
5	Chemical tests of Vegetation Water		25	
	Acidity			
	Polyphenols (HPLC)		30	
6	End Products			
	Impurities (Centrifugation)		30	
	Acidity		25	
	Peroxide Value		30	
	Iodine Value		30	
	Fatty Acid Composition		60	
	Pesticide Residues		60	
	Moisture and Volatile Matter		15	
	Refractive Index	20		
	Saponification Number	30		
	Specific Gravity	20		
	Heavy Metals: Lead, Copper, Iron	90		
	Total per Batch		\$ 765	

Eco-Labeling: Voluntary Standard

- Organic products and Fair Trade labeling comprise growing niche markets in OECD countries.
- Organic production based on voluntary environmental standards formulated by Governments and International NGOs
- Production of Organic Products is difficult in the absence of the locally available organic inputs, accreditation infrastructure and certifying institutions.
 - **IFOAM's Organic Guarantee System** unites the organic world through a common system of standards, verification, and market identity, see:
 - *IFOAM Accreditation Criteria for Bodies Certifying Organic Production and Processing (IAC)*
 - *IFOAM Basic Standards for Organic Production and Processing (IBS)*
- Countries have adopted national eco-labeling standards of differing rigor, despite harmonization efforts: can confuse (mislead) consumers.
- Fear exists that eco-labeling will become so pervasive that it will become in effect an informal technical barrier to trade and another obstacle to accessing developed country market access.




PART IV:

Environmental Requirements Impacting the Textile and Garment Sectors

MENA Textile/Garment Industry: Most Troublesome Environmental Requirements

	Product Standards	Process & Production Methods	Conformity Assessment	Dispute Resolution
Regulatory Measures	<ul style="list-style-type: none"> Azo dyes Flame retardants Heavy metals Labeling Packaging 	<ul style="list-style-type: none"> Compliance with domestic environmental laws: wastewater effluent treatment (Rules of origin) 	<ul style="list-style-type: none"> High cost of product testing prior to export Limited number of accredited labs in region 	<ul style="list-style-type: none"> Communication links between firms & trade ministries poor Politicization of inter-government dispute settlement
Voluntary Measures	<ul style="list-style-type: none"> Eco-labeling 	<ul style="list-style-type: none"> Eco-labeling ISO Labor standards 	<ul style="list-style-type: none"> Cost of maintaining eco-label On-site inspections by importer 	<ul style="list-style-type: none"> Time/cost needed to enforce contracts

Textile/Garment Industry: Examples

- **Syria & Morocco – Azo Dyes in Textiles**
 - Syria banned use before other Arab countries, therefore could adjust to requirements being adopted by EU. Private Sector in Morocco pro-active
- **Egypt - Labelling Declarations possible TBT**
 - Textile/Garment shipping orders should list all technical details about production; complicated requirement and exports don't like to reveal trade secrets therefore textile exports to Egypt reduced.
- **Jordan – Conformity assessment still developing**
 - Institutions for Standards and Metrology inspects labels on garments, but does not test/inspect garments or monitor production at facilities.
- **Large Firms v.s SMEs – Conformity Assessment**
 - Large firms sometimes have their own labs to test products prior to export; SMEs must rely on business service providers (costly) or government institutions (rarely available) to assist.

Eco-Labeling Schemes

- **Public and Private eco-label schemes exist for textiles/garments. Nearly 20 labels just in Europe.**



Eco-Label is an EU Label (public) – for T-shirts, bed linens, washable quilts, potentially garments



Okotex is a German-managed label (private) – assesses conformity with eco-management principles; product label relates to textiles, but differentiated based on access to skin; focus on infant and baby clothes



Good Environmental Choice is a Swedish label (private) focused on cloths, home textiles containing at least 95% textile fiber.



PART V:

Environmental Requirements Impacting Selected Other Sectors



Pharmaceuticals Industry in the MENA Region: Most Troublesome Environmental Requirements

	Product Standards	Process & Production Methods	Conformity Assessment	Dispute Resolution
Regulatory Measures	<ul style="list-style-type: none"> Expiry date Drug stability Banned use of Bovine-derived materials Labeling Packaging 	<ul style="list-style-type: none"> Good Management Practices (GMP) Licensing Patents (IPR) 	<ul style="list-style-type: none"> High cost of product testing prior to export Limited number of certified labs and technical equipment in region, plus costly 	<ul style="list-style-type: none"> Communication links between firms & trade ministries poor Politicization of inter-government dispute settlement
Voluntary Measures	<ul style="list-style-type: none"> Eco-labeling 	<ul style="list-style-type: none"> Good Lab Practices (GLP) – [required only by Qatar] 	<ul style="list-style-type: none"> On-site inspections by importer Product testing by importer 	<ul style="list-style-type: none"> Time/cost needed to enforce contracts

Pharmaceuticals Industry: Examples from the MENA Region

- **Process Requirement and Conformity Assessment - Good Manufacturing Practices/Good Laboratory Practices**
 - GMP required by ~all Arab countries; GLP by Qatar – thus Qatar doesn't accept certification by countries in region, because none accredited to issued GLP certification. Hazardous waste disposal issue.
- **Syria – Licensing, IPR and Protecting Human Health**
 - Ministry of Health allows local production of imported drugs to provide cheaper alternatives to local population; matched with import ban.
- **Jordan v/s Lebanon: Registering a new drug**
 - Could take 2 years in Jordan, and only 3 months in Lebanon.
- **Saudi Arabia – Product requirements**
 - No bovine-derived materials, coloring of medicines based on WHO standards, no alcohol in medicine (= cultural requirement)
- **Egypt – Non-discrimination principle challenge**
 - To export drug to Egypt, must be FDA approved, even though many drugs produced/sold in Egypt not FDA approved.

New EU Directive on the Electronics Industry (1)

- **Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 restricts the use of certain hazardous substances in electronic equipment as of 1 July 2006**
 - Means that these items sold in the EU **cannot contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).**
 - **ANNEX to Directive EXEMPTS** lead which is commonly used for soldering.
 - Without Exception, would have been problematic for electronics manufacturing, particularly since alternatives for soldering, such as silver or antimony, would need to be used. However, these two metals are expensive and can also leach into water sources and cause adverse environmental and health effects, which may be worse than those caused by lead.
 - **Would also introduce the question whether banning lead in electrical equipment is the most effective (and least trade-restricting) option.**

Furniture Sector: Palestinian Wastewater Effluent Standards

- Palestinian Environmental Quality Authority in 1999 drafted wastewater effluent standards - ministries/private sector concerned that draft standard & adoption as technical regulation could reduce competitiveness of industries that are already economically stressed

Bamboo Furniture Industry in Gaza

- Furniture one of largest industrial sectors in Gaza/employs 8% industrial workforce in the Gaza Strip
- Mostly family-owned businesses producing out of bamboo, wood and metallic workshops. Bamboo & metallic furniture production most polluting
- In 2000 there were 383 firms operating in the sector in the West Bank and Gaza. Field survey revealed that only 184 remained open in 2003 and, of those, only 27 firms maintained the capacity to export
- Bamboo furniture production starts by washing, cutting & soaking bamboo sticks (European/SE Asian) for 3 days in large water container
- Water in the barrels used for soaking, cleaning and shaping is renewed daily or few times a week.
- Wastewater is released into the sewage system or in some cases in ponds in agricultural land.

Results wastewater analysis from a typical bamboo furniture workshop in Gaza as compared to wastewater standards in Palestine, Yemen and Egypt (year 2000)

Parameters	Results of the analysis in Gaza	Proposed Palestinian wastewater standards (into sewage networks)	Yemeni industrial wastewater standards (into sewage networks) ^a	Egyptian industrial wastewater standards (not into sewage network) ^b
Total Solids (TS) mg/l	1900	3000	-	-
Total dissolved solids (TDS) mg/l	1800	2500	2000	1200
Suspended solids (SS) mg/l	100	500	1100	30
Biological oxygen demand (BOD) mg/l	200	500	800	30
Chemical oxygen demand (COD) mg/l	406	2000	2100	40
NO ₃ mg/l	10.92	30	-	-
NH ₃ mg/l	4	45	-	-

^a Government of Yemen, Public Agency for Water Resources, *Water specifications for Yemen: commercial and industrial wastewater*, (from Arabic), September 1999.

^b UNEP, AIDMO, League of Arab States, *Guidelines for acceptable industrial standards for pollutants in Arab countries* (from Arabic), 1997.

Questions for Discussion

- In absence of existing extenuating circumstances.....*do bamboo furniture manufacturers in Gaza have an unfair advantage relative to producers in Yemen and Egypt since they do not need to comply with wastewater effluent standards that are as rigorous as those adopted by its Arab competitors?*
- *What issues should be considered when determining if there is a 'level playing field'?*

Thank you.



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