

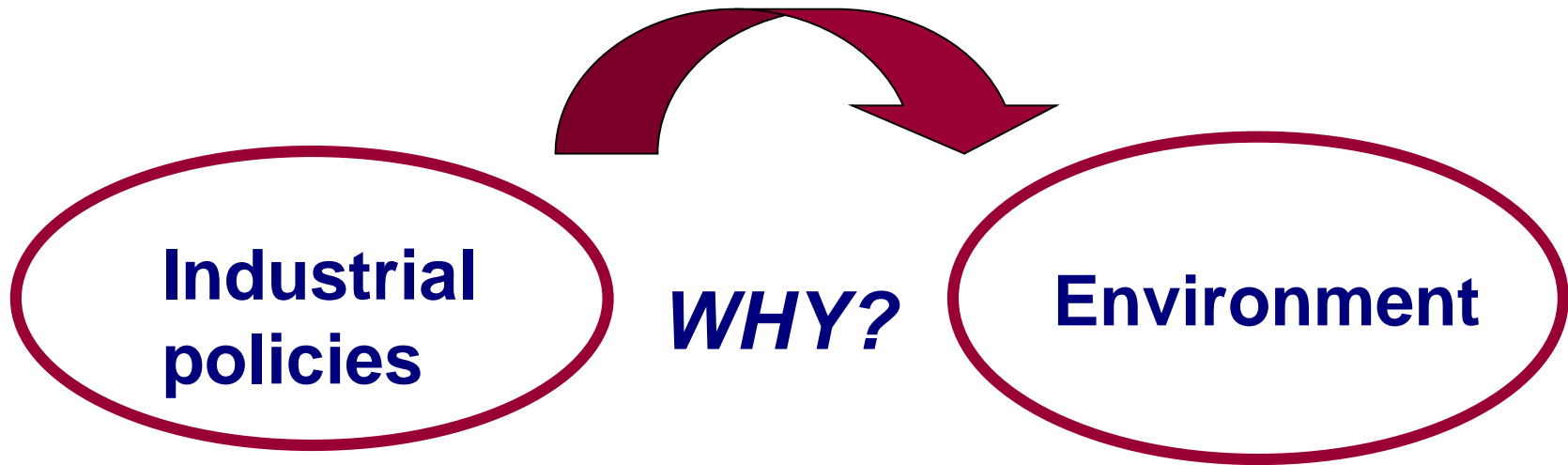


The Potential Impact of Recent Industrial Policy changes in Egypt on the environment

Abla Abdel-Latif

Professor of Economics

American University in Cairo



Sustainable development of an economy requires that industrial policy formulation takes the environmental dimension explicitly into consideration and not just settle for environmental laws and institutions that clean up the pollution effects of manufacturing

Taxonomy & Coverage

Broad definition

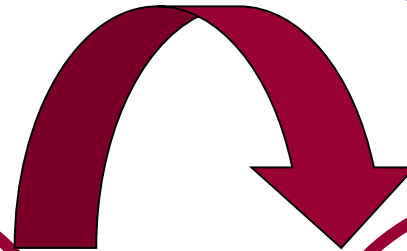
Any measure, policy or program aimed at increasing growth and competitiveness of industry within the context of the economy as a whole

Industrial policies

External & internal dimensions

- *All kinds of pollution*
- *Depletion of resources*
- *Work environment in plant*

Environment



???

The case of Egypt-1

- What's the overall impact of industrial policy formulation in Egypt (1950s -1990s) on the environment?
- Have industrial policies been consistent with environmental policies? Are industrial policies consistent among themselves in what concerns environmental impact?

???

The case of Egypt- 2

- Are the most recent policy changes (2003-2007) likely to improve or deteriorate the environmental condition in Egypt?
- How has the relationship between the industrial and environmental camps in Egypt evolved? Where are we now?
- How to improve the balance between the two sides on the basis of other countries' experience?

Methodology

- Generally unorthodox
- More qualitative than quantitative analysis
- Interviews with key industrialists
- Field visits to ten enterprises from textiles, food, auto components & fertilizer industries
- Proxy measure for environmental compliance of industrial enterprises:

*Exports to western markets, Environmental certificates
Environmental investments, and Human resources*



What's the overall impact of industrial policy formulation in Egypt (1950s -1990s) on the environment?



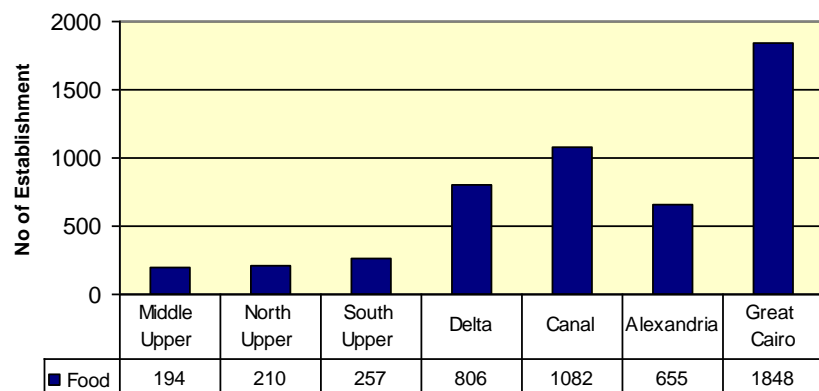
Issues addressed in research paper

- Geographical and size distribution of manufacturing industries in 2005
- Water, energy and land pricing
- Overall status of technology in Egypt
- Environmental management system and role of industrial institutions

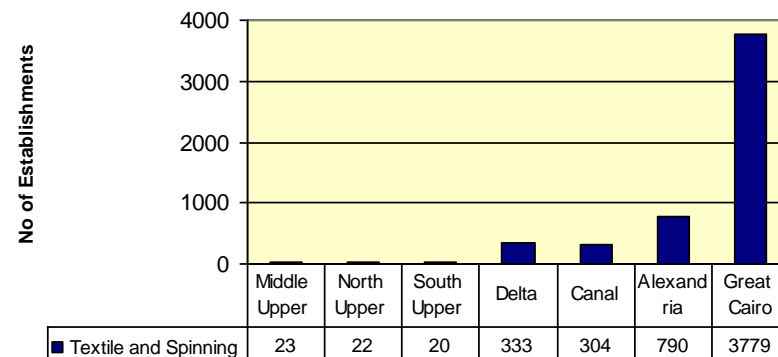
A. Geographical distribution of enterprises among regions in Egypt (2005)

- *Heavy concentration in Greater Cairo-*

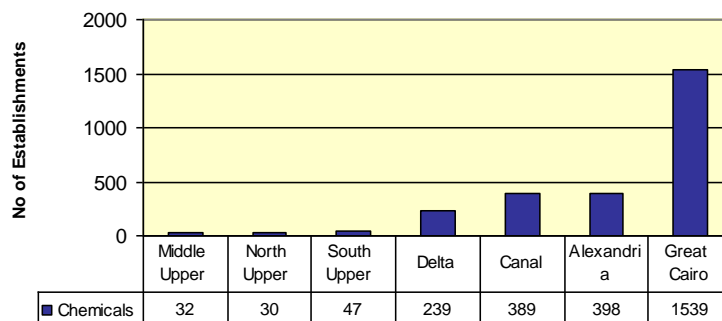
(2a) Food Industries



(2b) Textile Industry



(2c) chemical industries



B. Percentage size distribution by sector (2005)

predominance of small enterprises in all sectors

	Small enterprises	Medium enterprises	Large enterprises
Food, beverages & tobacco	71.6	20.3	8.1
Spinning & weaving, garments & leather	71.0	21.3	7.7
Wood & wood products	67.6	25.1	7.3
Paper, printing and publishing	71.9	21.0	7.1
Basic chemicals and its products	68.5	23.4	8.1
Construction material & china	73.6	17.4	9.0
Basic metals	64.8	23.3	11.9
Engineering industries	70.5	21.0	8.5
Other manufacturing	83.9	13.4	2.7

Source: calculated by researcher on basis of data from GOFI/IDA, 2005

C. Water, energy and land pricing (2005)

- No clear pattern by the government for pricing inputs at the regional level
- Objectives of promotion of industrial growth and/or preservation of resources or protection of environment are blurred and not reflected by input pricing policies
- Land pricing is particularly problematic (*high prices in new cities, high variability between governorates, big advantages for small enterprises*)
- Energy subsidies kept energy prices considerably lower than international prices, highest subsidies for most polluting sources (*abusive consumption and depletion of resources*)

D. Technology level in manufacturing at least until late 1990s

Generally low and old with few exceptions due to:

- Low levels of R&D in general
- Private sector lacks technology culture
- Low quality of quantity of R&D of relevance to industry by public enterprises
- Between 1993-1999 only 0.58% of government R&D budget went to MTI

E1. Environmental regulations and focus areas

Laws/ decrees	location	Air emission	Wastewater	Solid waste	Hazardous substance s	Hazardo us waste	Work enviro nment
# 4/1994	●	●	●	●	●	●	●
# 48/1982			●	●			
# 93/1962 (dec #44/2000)			●				
#12/2003 (labor)					●		●
#453/1954	●			●			
#3/1982	●						
Others				●	●	●	●

E2. Environmental management system until 2004

- System uses a number of tools that range from command regulations to voluntary actions and economic incentives
- The one mostly used are command regulations such as (industry discharge standards). Often not effective because of technical problems (ex. Tanning industry)
- Economic incentives not diversified and limited -mostly grants and soft loans to shift to cleaner production – not sustainable because of reliance on donor programs
- EEAA has no authority to enforce laws and regulations
- Very limited role played by industrial institutions (Environmental compliance office (ECO), Tebbin Metallurgical studies, EOS)
- Limited practical collaboration between environmental and industrial institutions

Overall impact of industrial policy formulation in Egypt (1950s -1990s) on the environment

- Industrial policy formulation focused on industrial growth with no attention to environment thus leading to deterioration of environmental condition
- Negative impact on the environment was only partially mitigated by weak environmental institutions, limited incentives and poorly implemented laws



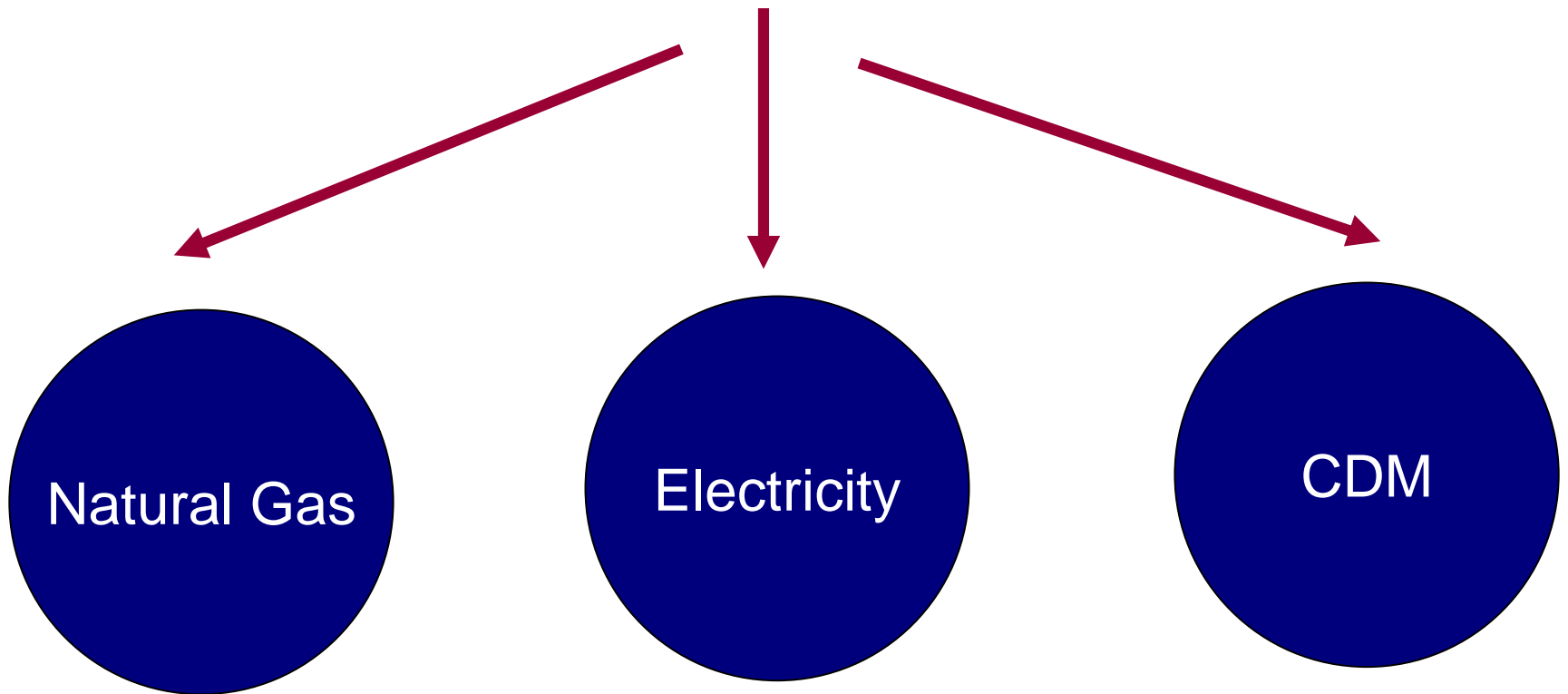
Have industrial policies been consistent with environmental policies? Are industrial policies consistent among themselves in what concerns environmental impact?



Limited consistency- Specific examples

- Poorly exploited win-win scenarios (natural gas, electricity and CDM)
- Delays in implementation causing serious damage to environment
- Continuous leakage to the informal sector causing serious damage to the environment

Poorly exploited win-win scenarios



The case of natural gas

Win-Win

relatively cheap
source of energy

+

environmentally
friendly

Policies

- Polluting petroleum fuels heavily subsidized
- Export agreements to Israel & others- depleting reserves??? (duration) (price)
- While only a limited segment of industry has completed the shift to natural gas
- Practical disincentives to shifting to natural gas

The case of electricity

Win-Win

Huge companies
can generate
electricity as a by product

+

environmentally
friendly

Policies

- Polluting petroleum fuels heavily subsidized
- Distorted policies that discourage companies from generating electricity
- Government *charges* L.E 0.18 /Kilowatt hr
- Government *purchases* extra generated electricity at L.E 0.02 /kilowatt hr

The case of CDM

(Clean Development Mechanism)

Win-Win

Upgrading of facilities
of enterprises at no cost

+

Upgrading focused
on reducing CO2
emissions

Policies

- No active promotion by GAFI & industrial institutions
- No special treatment for CDM projects by GAFI
- Extra transaction costs due Ministry of International Cooperation restrictions (proof that project lies outside grant by foreign country)

Delays in implementation causing serious damage to environment

- Relocation of leather tanneries from Old Cairo to Badr City
- Slow market exit of companies due to complex and lengthy procedures: Law (#159/1981) & (#17/1999)
- The “to be” privatized companies lost between MTI and MOI (MOI interested in highest sale price and not environmental requests by EEAA)

Technical Status of Machines in the upstream segment of the Public textile industry


Public sector activity	Average age 5 Years (%)*	Average age 5 -10 Years (%)*	Average age 15 Years or more (%)*
Cotton Spinning	5	23	72
Cotton Weaving	2	6	92
Cotton Finishing	7	6	87
Wool spinning	-	-	100
Wool weaving	-	10	90
Wool finishing	11	3	86
Garments	7	23	70
Medical cotton	1	14	85

Technical Status of Machines in the upstream segment of the Public textile industry

Public sector activity	Average age 5 Years (%)	Average age 5 -10 Years (%)	Average age 15 Years or more (%)
Cotton Spinning	5	23	72
Cotton Weaving	2	6	92
Cotton Finishing	7	6	87
Wool spinning	-	-	100
Wool weaving	-	10	90
Wool finishing	11	3	86
Garments	7	23	70
Medical cotton	1	14	85

Continuous leakage to the informal sector causing serious damage to the environment

- Big campaign against informal sector by government
- Yet registration procedures in municipalities for small enterprises and workshops allow for indefinite operation with “**application for license**” even if license is never approved or later rejected
- Huge problem given 92% of land in urban areas and 87% in rural areas



Are the most recent policy and institutional changes (2003-2007) likely to improve or deteriorate the environmental condition in Egypt?



Coverage of analysis

- Recent fiscal, trade, investment and business environment policy changes
- New industrial institutions
- Sixth five year plan (2007/2011)
- 2007 energy subsidy reductions

List of new policies analyzed

- *New Tax Law (# 91/2005)*
- *Removal of Sales Tax off capital goods and equipment*
- *Decree (#770/2005) Issuing the Executive Regulations to Implement Import and Export Law (#118/1975)*
- *Export Subsidy Fund*
- *Free Zone advantages*
- *Trade Agreements*
- *Labor Law (#12/2003) Amended by Law (#90/2005)*
- *Competition Law (law #3/2005) and Executive Regulations (August 2005)*
- *Consumer Protection Law*

fiscal

Trade &
investment

Legal,
regulatory &
Business
environment

Conclusions of detailed assessment

- All recent policies tend in principle to have a positive impact on the environment through encouraging exports and new investments



- **However**, not accounting for environmental dimension when formulating policies leaves room for exceptions, clauses of potential negative impact, indiscriminating incentives and implementation problems

Examples of policies with positive impact on environment



■ Tax law (# 91/2005)

Simplification of tax procedures, cancellation of previous commitments and reduction of tax rates encourages informal enterprises to become formal

■ Labor Law (#12/2003)

Set levels for pollution not only complying with Egyptian environmental laws but also with international standards

■ Trade Agreements (recently signed and activated)

Encourages trade with countries where environmental compliance of trade partners is a binding constraint for exports (the case of the EU and the US)

■ EIA as a mandatory document in the investment application file



EXCEPTIONS

“ the back door ”

Presidential decree
(# 30/2005)

PM can authorize any investment project even if not approved by GAFI and/or EEAA

Ministerial Decree
(#770/2005)
ER- for import & export law

Exceptional entry of potentially harmful substances upon approval Of Minister of Trade and Industry

DANGER!

**Undiscriminating
Incentives between
polluting & non-polluting
projects**

Export subsidy fund

*Support linked to quantity
exported without any
linkage to R&D or steps
towards environmental
compliance by companies*

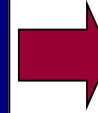
**Free zone advantages
and investment laws**

*Egypt is encouraging all
investments without any
reservations on polluting
sectors and all incentives are
horizontal*

**No
economic return
on environmental
investments**

+

**Undiscriminating
Incentives between
polluting & non-polluting
projects**



*Implicit incentive
to lean towards
polluting sectors
and technology*

Export subsidy fund

*Support linked to quantity
exported without any linkage
to R&D or steps towards
environmental compliance by
companies*

**Free zone advantages
and investment laws**

*Egypt is encouraging all
investments without any
reservations on polluting
sectors and all incentives are
horizontal*

DANGER!

Specific articles of potential negative impact on the environment

Removal of sales tax
off capital goods and
equipment- 2006

*Encouraging acquisition of
new technology ✓✓
BUT Not applying the
decision to food industries
is ?? –ve impact on
environment*

Ministerial Decree
(#770/2005)
*ER- for import &
export law*

*Only ozone depleting sources
are mentioned, decree allows
for importation of used
production lines and
equipment without
restrictions on how old it is*

DANGER!

Good policies with potential Implementation problems

Labor law (#12/2003)
amended by
law (#90/2005)

Protection from exposure to harmful effects provided by law is significantly reduced by the deficiencies of the dispute settlement system

Competition Law (#3/2005)

*A single authority in charge CPA, limited resources and tools to investigate, Lack of precedents, subjective definitions for violation can lead to abuse of anything **"BIG"***

New industrial institutions

- Industrial Development Authority (IDA) **2006**
- Egypt National Cleaner Production Center (ENCPC) **2006**
- An industrial unit within (EEAA) **2004**
- Environmental Compliance Office (ECO) as a special unit in FEI **2008**

All new institutions have a positive impact on the environment (better control over harmful products, more awareness, incentives for improving methods of production)

New industrial institutions

- Industrial Development Authority (IDA) **2006**
- Egypt National Cleaner Production Center (ENCPC) **2006**
- An industrial unit within (EEAA) **2004**
- Environmental Compliance Office (ECO) as a special unit in FEI **2008**

All new institutions have a positive impact on the environment
*(better control over use of harmful products, more awareness,
incentives for improving methods of production)*

BUT more of the same is needed plus closing back doors



Sixth five year plan (2007-2011)

- Focus on manufacturing (to grow at a higher rate than economy as a whole)
- Heavy reliance on private sector (contribution to investment 96% by 2011)
- Sectoral composition within manufacturing remains unchanged following actual 2006/2007 but with considerable increase in production

P. sectoral composition within manufacturing

Sector	Target 2007/2008 (billion L.E)	Target 2011/2012 (billion L.E)	Relative Importance (%)	Planned % growth over whole period
Textile & clothing	39.0	79.6	30.9	104
Chemical	33.0	67.2	26.1	103.6
Engineering	20.6	41.7	16.2	102.4
Food	19.1	39.0	15.1	104.2
Metals	14.8	30.1	11.7	103.3
Total	126.5	257.7	100	103.7

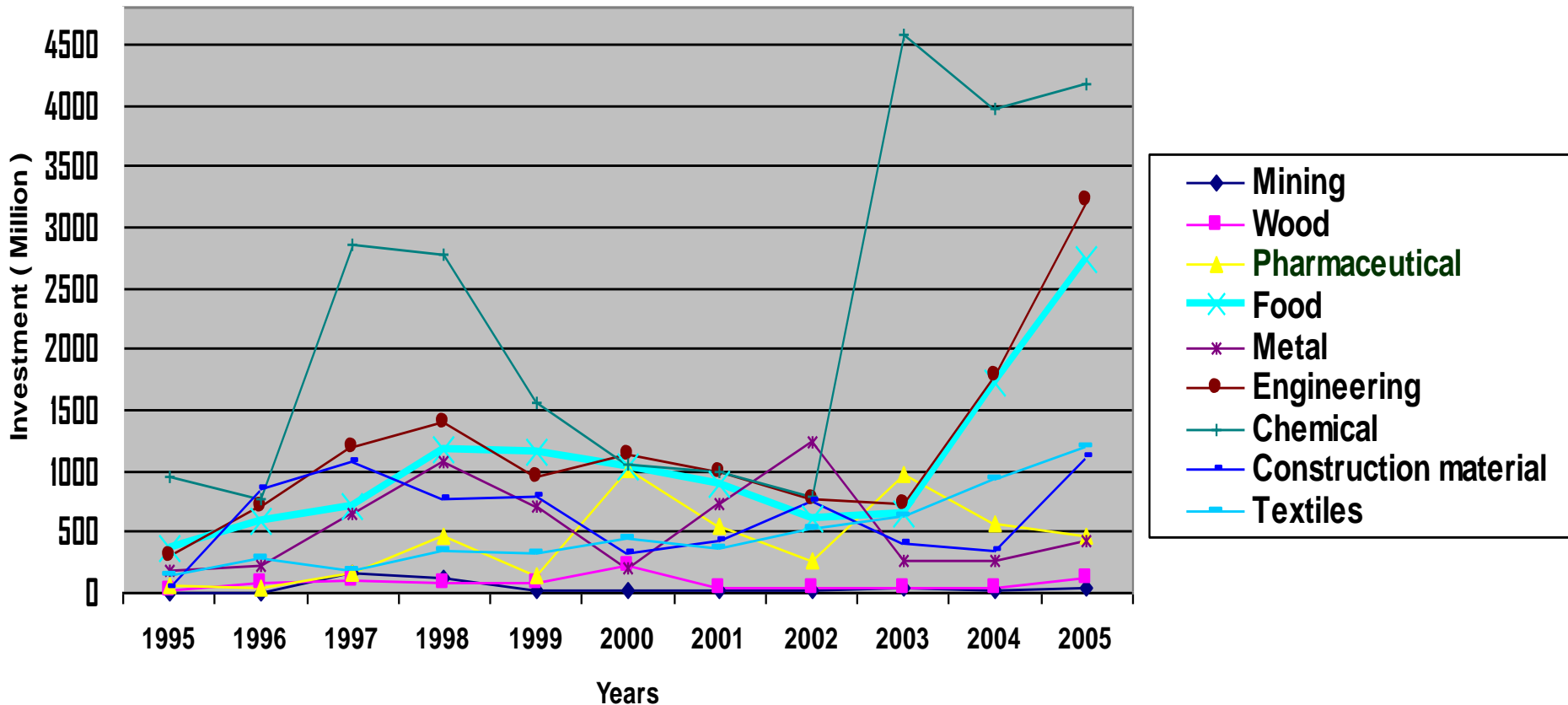
Potential environmental impact of the plan

- **First look:** fixed sectoral share seems to have a neutral effect on the environment
- **Closer look:** planned sectoral composition to lead to serious deterioration in environmental conditions

- Investments in chemical industries have been higher and increasing faster than all other manufacturing industries (475% between 2002 and 2003 alone, 40% of all new investments)
- Deteriorating environmental conditions in Egypt (Human Development Report- UNDP 2007/2008)
- New licenses for establishing cement industries
- Section on the environment in the plan is very weak and doesn't link with industry in any way

Annual investment in different manufacturing industries- period (1995-2005)

Investment in The Industrial Sub-Sectors



2007/08 energy subsidy reductions

The changes



- Increase in natural gas prices by 112% over three years
- Increase electricity prices by 60% over three years
- Applies to heaviest users then to all industry over six years
- Increases in mazot prices (most recent)


The good: Step towards full cost pricing, an attempt at step wise pre-announced price changes

The bad: Changes triggered by high oil prices & gov burden and not environmental concerns. Sudden mazot price increases cause confusion and provide no alternatives for users, small enterprises most affected, continuation of status quo

The ugly: New natural gas prices practically apply only to companies selling in domestic market. Most exporting companies have confidential agreements with government fixing gas prices from five to ten years, **Natural gas export deal to Israel???**

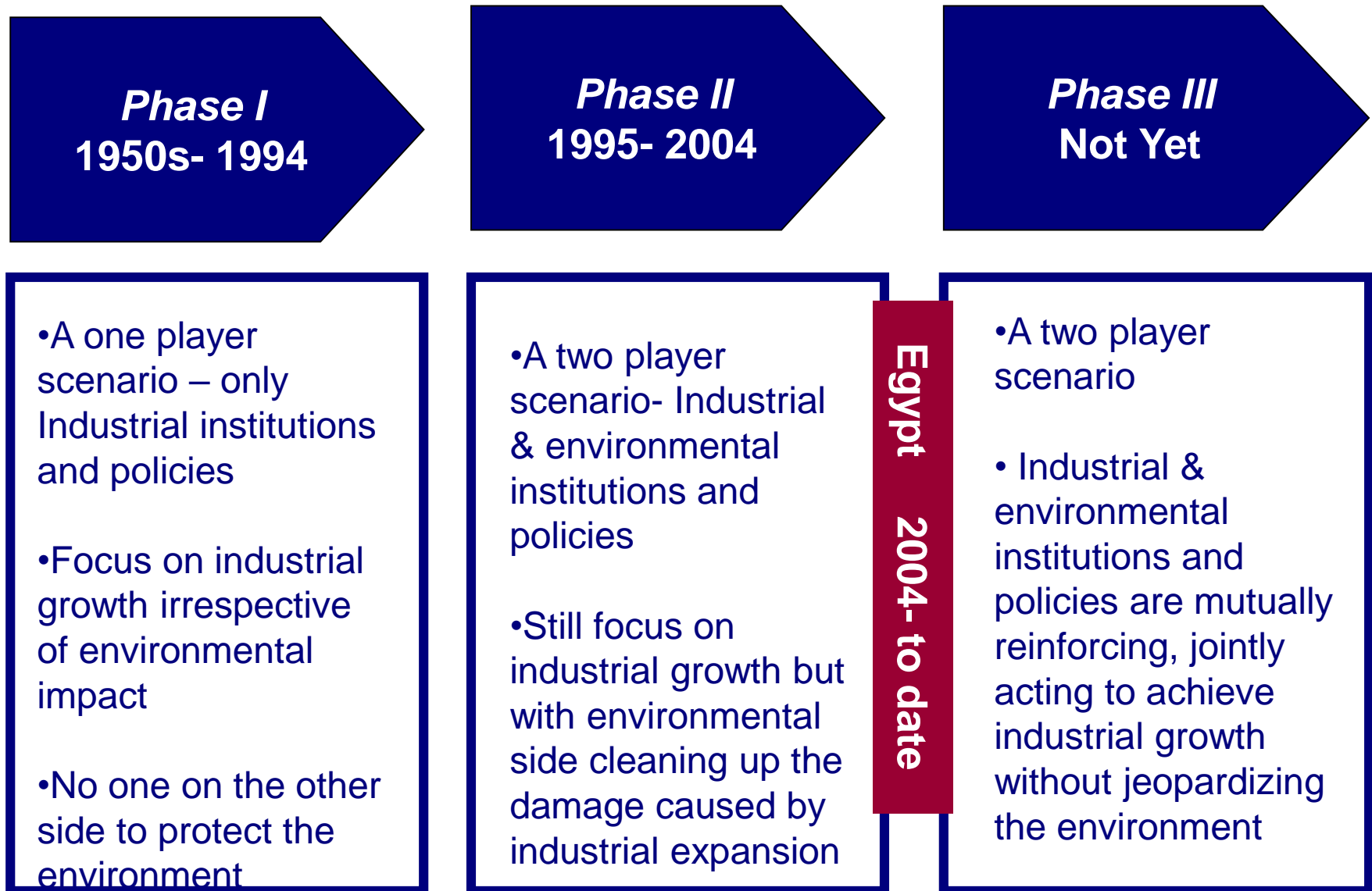
Overall impact of recent changes in industrial policies on the environment

Area of intervention	Impact on environmental situation
Compliance with environmental standards	<i>Improved</i>
Geographical distribution	<i>Improved</i>
Size distribution	<i>unchanged</i>
Depletion of natural resources	
Substitution of polluting energy sources with more environmentally friendly ones	
Environmental vision/ overall orientation of economy	<i>unchanged</i>



How has the relationship between the industrial and environmental camps in Egypt evolved? Where are we now?

Relation between industrial institutions & policies and environmental institutions & policies



Impact of phases on environment

Industry polluting →



Industry polluting →

← cleaning up



Both Industrial & environmental author. protecting environment ⇨



} Egypt

Why has Egypt not yet entered phase III?

Towards Phase III




- Positive new institutional developments (IDA, ENCPC, Industrial unit in EEAA, ECO)
- More collaboration between MTI, EEAA, MOH, MLP
- Starting to approach environmental protection from angle of economic benefits
- Social image and responsibility of businessmen as a key player

Continuing Problems



- Environmental protection still comes as a by product of other objectives
- No plan/ vision/incentives for gradually changing sectoral composition towards less polluting industries
- Policy inconsistencies & ambiguity
- Weak/slow/cheap dispute settlements of relevance to environment



How to improve the balance between the two sides on the basis of other countries' experience?



Adopt a national policy that incorporates environment

Such policy system aims at :

- 1)** Gradually changing the composition of the manufacturing sector progressively toward a less polluting mix
- 2)** Improving the efficiency and quality of processes used
- 3)** It must be incorporating environmental objectives on par with the more conventional economic objectives

Some specific policy recommendations on basis of other countries' experience-2

- Fiscal and facilitative incentives for local and foreign investment in key industries which are less polluting and more consistent with the sustainable use of local natural resources
- Incentives to new or expanded industry in all sectors to adopt more efficient processes and achieve cleaner production, as measured against global benchmarks
- A focus on small and medium enterprises and the creation of mechanisms to help them select and adopt least-cost process and pollution control technologies and appropriate environmental management techniques
- The means to inform and train financial and insuring institutions on industrial environmental objectives and the reduction of lending risk through cleaner production and better environmental management

One final example

*the EU policy for fertilizer industry
as announced in 14th AFA international Annual fertilizers-
forum and exhibition- February 2008- Cairo, Egypt*

There is **No** fertilizer industry policy

It comes as part of the EU's overall integrated policy system:

- Environmental policy
- Energy policies
- Food security policy



THANK YOU