

National Program on the Elimination of Mercury

State of Qatar

The State of Qatar

Population :1.4 million

Capital city :Doha

Area :11,437 sq km

Major language :Arabic

Main exports :Oil, gas







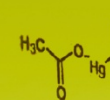


Introduction

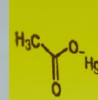
The Ministry of Environment started to introduce and improve the national strategy for chemical management.

Q-SAICM Through this strategy, the Ministry made an international program prepared with United Nation for Environment Program (UNEP).

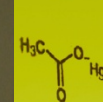
The program tries to reduce the risks of mercury and its effects for human health and environment. This is further introduced and implemented because Qatar has a rapid growth of development particularly in industry and technology. The national program wants also to protect and preserve the human health and environment.



Mercury

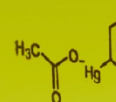


Mercury





zero Hg
mercury working group



The Effects of Mercury in Human Health

The Methyl Mercury Effects :

- Tremors
- Human Nervous System & Pregnancy.
- Changes in vision or hearing
- Insomnia
- Weakness
- Difficulty with memory
- Headaches

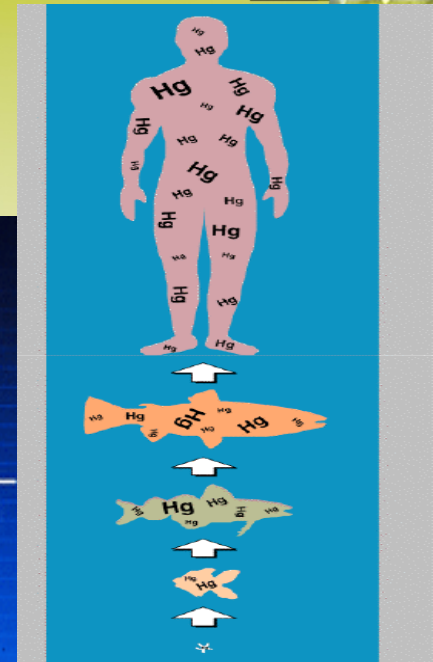
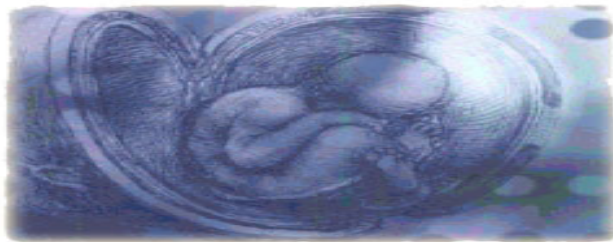
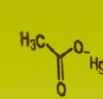
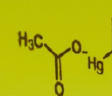


Figure 4. Mercury (Hg) biomagnifies from the bottom to the top of the food chain. Even at very low input rates to aquatic ecosystems that are remote from point sources, biomagnification



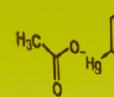
Geographical Scope of the Plan

The geographical scope of the program is the whole of the State, especially the industrial and health zones .



The goal of the national program on Elimination of Mercury

- Reduce the mercury and its compounds releases to the environment .
- Find the best alternatives of its products.
- Find ways to eliminate and control its level.



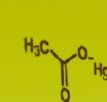
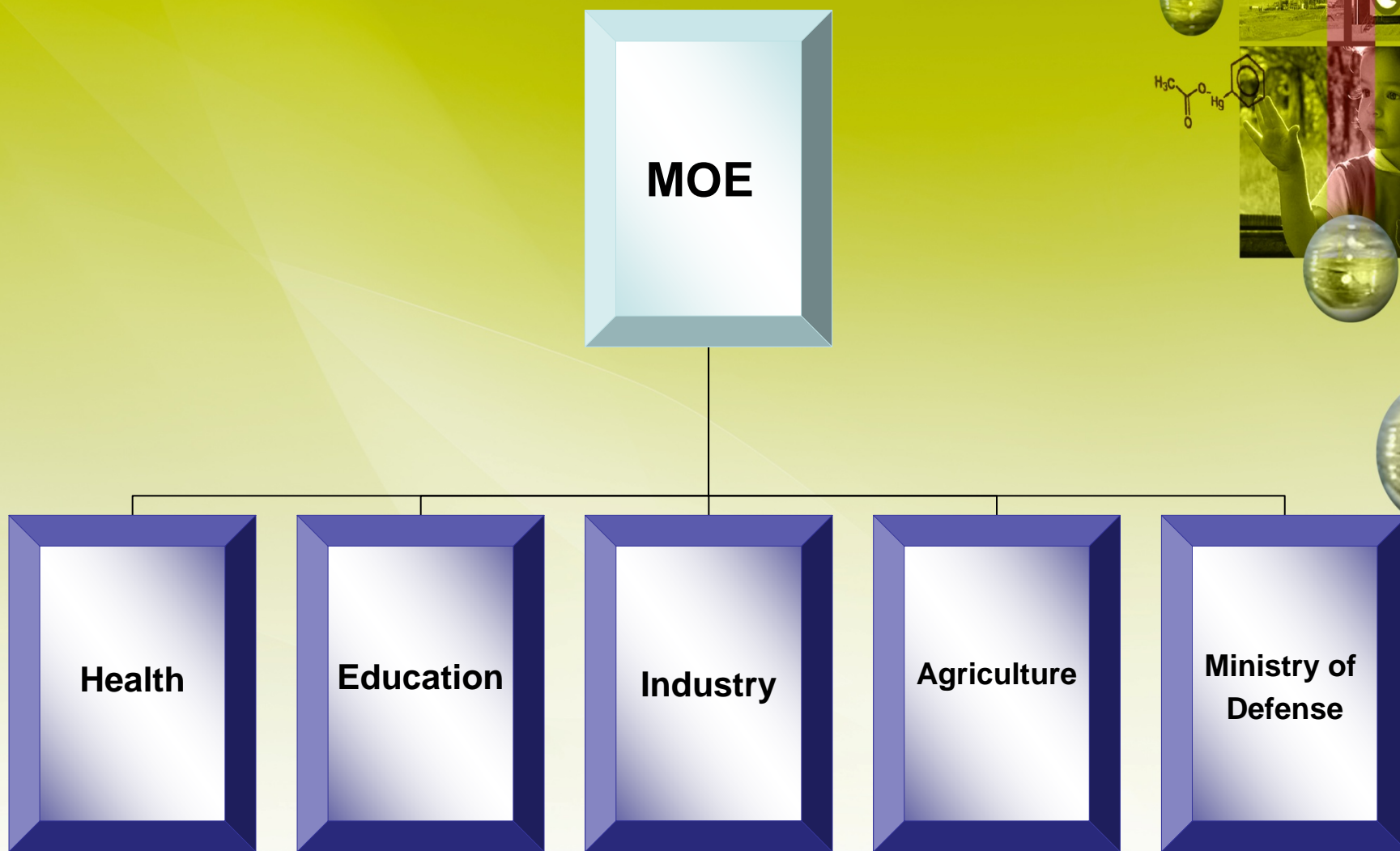
Methodology of the work and Phases of the Program

The ministry of Environment has designated a project coordinator (PC), who is the mercury program focal point and formed a Project Coordinating Team (PCT) from the relevant ministries and organizations in Qatar:

- Ministry of Environment.
- Ministry of Health.
- Hamad Medical Corporation.
- Ministry of Agriculture and Municipality.
- The Industry (heavy, medium and light industry)
- Ministry of Defence (Environment Security Unit).
- Qatar University.
- Ministry of Education.

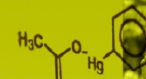


Parties interested



Functions of the National Coordination Team

- Maintain and control the inventory of mercury sources
- Facilitate access to information and data on mercury.
- Support the implementation of the plan in their ministries and organizations by raising the awareness of the mercury .
- Impacts on the environment and public health among the segments of society by using all the available means.



There are 3 **Phase** for the activities

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graph TD; A[There are 3 Phase for the activities] --- B[First Phase : Gathering of information]; A --- C[Second Phase: Literature review, samples collection and processing]; A --- D[Third Phase: Drafting the National Action Plan of the State of Qatar.];
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First Phase : Gathering of information

Second Phase: Literature review, samples collection and processing

Third Phase: Drafting the National Action Plan of the State of Qatar.

The 5 Technical Groups

MOE

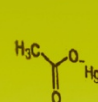
**Heavy Industry
groups**

**Light industry
groups**

**Education
groups**

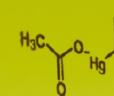
**Agriculture
groups**

**Health
groups**

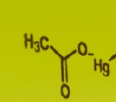


Second Phase: Literature review, samples collection and processing

- studies and researches.
- samples from the environment especially from the sea water and the sediments .
- Analyzing samples



Third Phase: Drafting the National Action Plan of the State of Qatar



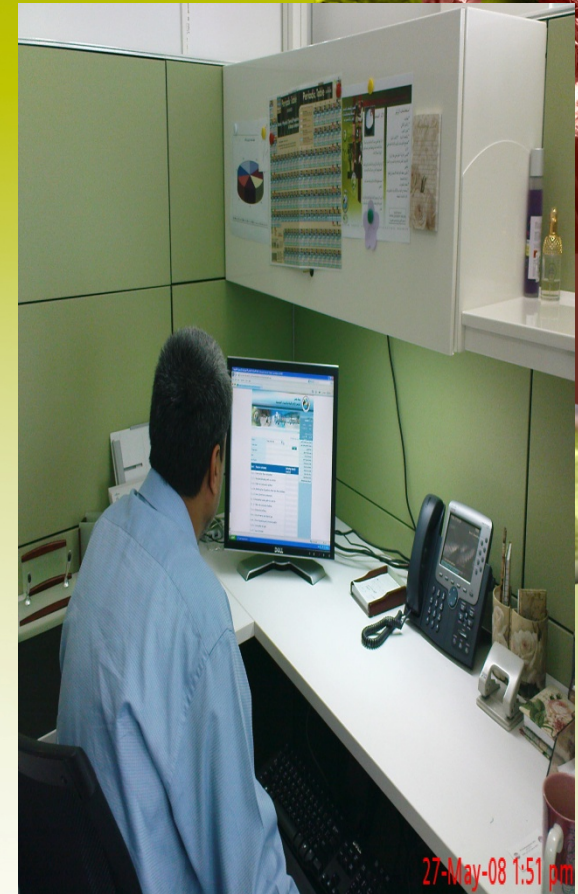
Qatar Mercury Management Information System QMMIS



Information technology to manage the mercury emissions in the state of Qatar in education, medicine, and industrial fields.

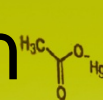
This information system can be used for managing different minerals or substances impacts on the environment having similar management approaches.

Making this information system available and accessible for other agencies.



Objectives of QMMIS

- Assists in gathering the information for the mercury usage and emissions in different fields.
- Saving time and effort spent on mercury assessment for both technical staff and decision makers.
- Reduce human mistakes.
- Building data inventory for mercury in Qatar.



Feasibility Study of QMMIS

- The idea is to substitute the usage of the UNEP toolkit to user friendly application interfaces.

UNEP Hg Toolkit Calculation (Modified).xls [Compatibility Mode] - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Developer

Clipboard Font Alignment Number Styles Cells Editing

B49

raft spreadsheet of UNEP Chemicals' Toolkit for identification and quantification of mercury releases

ad "Introduction" before starting

													Enter output distribution factors (unitless)					Calculated Hg			
Su-C	Source category /phase	Exists ? (y/n/?)	Default input factor	Unit	Enter input factor	Unit	Enter activity rate	Unit	Calculat. Hg input	Unit	Output scenario (where relevant)	Enter Hg input	Unit	Air	Water	Land	Product	General waste	Sector specific treatment/disposal	Air	
5.1.1	Coal combustion in large power plants		0.05-0.5	g Hg/t	0.5	g Hg/t	t coaly/y		0	Kg Hg/y	Emis. Red. Devices: None (a)		Kg Hg/y		0.01		0.8	0.19		0.00	
5.1.1.1	/Coal wash		0.05-0.5 (a)	g Hg/t	0.5	g Hg/t	t coaly/y		0	Kg Hg/y (a)	General ESP or PS (a)		Kg Hg/y	1				0.1		0.00	
5.1.1.2	/Combustion										FF or other high PM retention (a)		Kg Hg/y	0.5				0.5		0.00	
											PM+SDA (a)		Kg Hg/y	0.4				0.6		0.00	
											PM-wet FGD (a)		Kg Hg/y	0.5				0.5		0.00	
5.1.2	Other coal use		0.05-0.5	g Hg/t	0.5	g Hg/t	t coaly/y		0	Kg Hg/y				1						0.00	
5.1.2.1	Coke production																			0.00	
5.1.2.2	Coal combustion		0.05-0.5	g Hg/t	0.5	g Hg/t	t coaly/y		0	Kg Hg/y				1						0.00	
5.1.2.3	/Coal wash		0.05-0.5 (a)	g Hg/t	0.5	g Hg/t	t coaly/y		0	Kg Hg/y (a)	Emis. Red. Devices: None (a)		Kg Hg/y	1	0.01		0.8	0.19		0.00	
5.1.2.4	/Combustion										General ESP or PS (a)		Kg Hg/y	0.9				0.1		0.00	
											FF or other high PM retention (a)		Kg Hg/y	0.5				0.5		0.00	
											PM+SDA (a)		Kg Hg/y	0.4				0.6		0.00	
											PM-wet FGD (a)		Kg Hg/y	0.5				0.5		0.00	
5.1.3	Mineral oils - extraction, refining and use													?	?			?	?	#VALUE!	
	/Extraction																				#VALUE!
	/Use of crude oil:																				
5.1.3.1	Uses (other than combustion)		10 - 300	mg Hg/t	300	mg Hg/t	t oily/y		0.00	Kg Hg/y				1						0.00	
	Residential heating with no controls													1							0.00
5.1.3.2	Other oil combustion facilities		10 - 300	mg Hg/t	300	mg Hg/t	t oily/y		0.00	Kg Hg/y	Oil Combustion Facility with no emissions controls			1					0.1		0.00
											Oil Combustion Facility with PM control using an ESP or scrubber			0.9							0.00
5.1.3.4	/Refining		10 - 300	mg Hg/t	300	mg Hg/t	t oily/y		0.00	Kg Hg/y				?	?			?	?		#VALUE!

الخدمات الإلكترونية
Electronic Services

« Application » Technical

Required Data*

Category	<input type="text" value="[Chose]"/>
* Arabic Name	<input type="text"/> <input type="button" value="Search"/>
* English Name	<input type="text"/>
Area	<input type="text"/>
Level of the school	<input type="text"/>
No of Student	<input type="text"/>
Size of Facility	<input type="text"/>

Save

Cancel



دخول الأعضاء

مرحباً، shahmad

بياناتي + خدماتي +

خروج + عدد الزوار : ٧٥

اذكر رأيك عن النظام:

مؤيد معارض

تسجيل +

عمليات رش المبيدات المر...

عمليات التفتيش على رش ...

خطة تفتيش

تصريح بيئي سابق

شاشة الشركات

شاشة المواد الخام

تعديل تصريح بيئي

إضافة نشاط بيئي

تعديل نشاط بيئي

حذف نشاط بيئي

Data Entry Form

Administration Sheet



Date 06/11/2008

Preliminary Inventory Report

Name : almaha

Type : Education

492.00

No: المعمورة

Level: ابتدائي

CategoryName : Thermometers, manometers, and other measuring equipment

Category No : 5.6.3.10

Input Factor : 0.00

Activity Rate : 4.00

Calculated Hg Input : 0.00

Enter Hg Input : 1.00

Output Scenario :

Output distribution factors

Air	water	Land	Product	General waste	Disposal
0.05	0.00	0.00	0.00	0.95	0.00

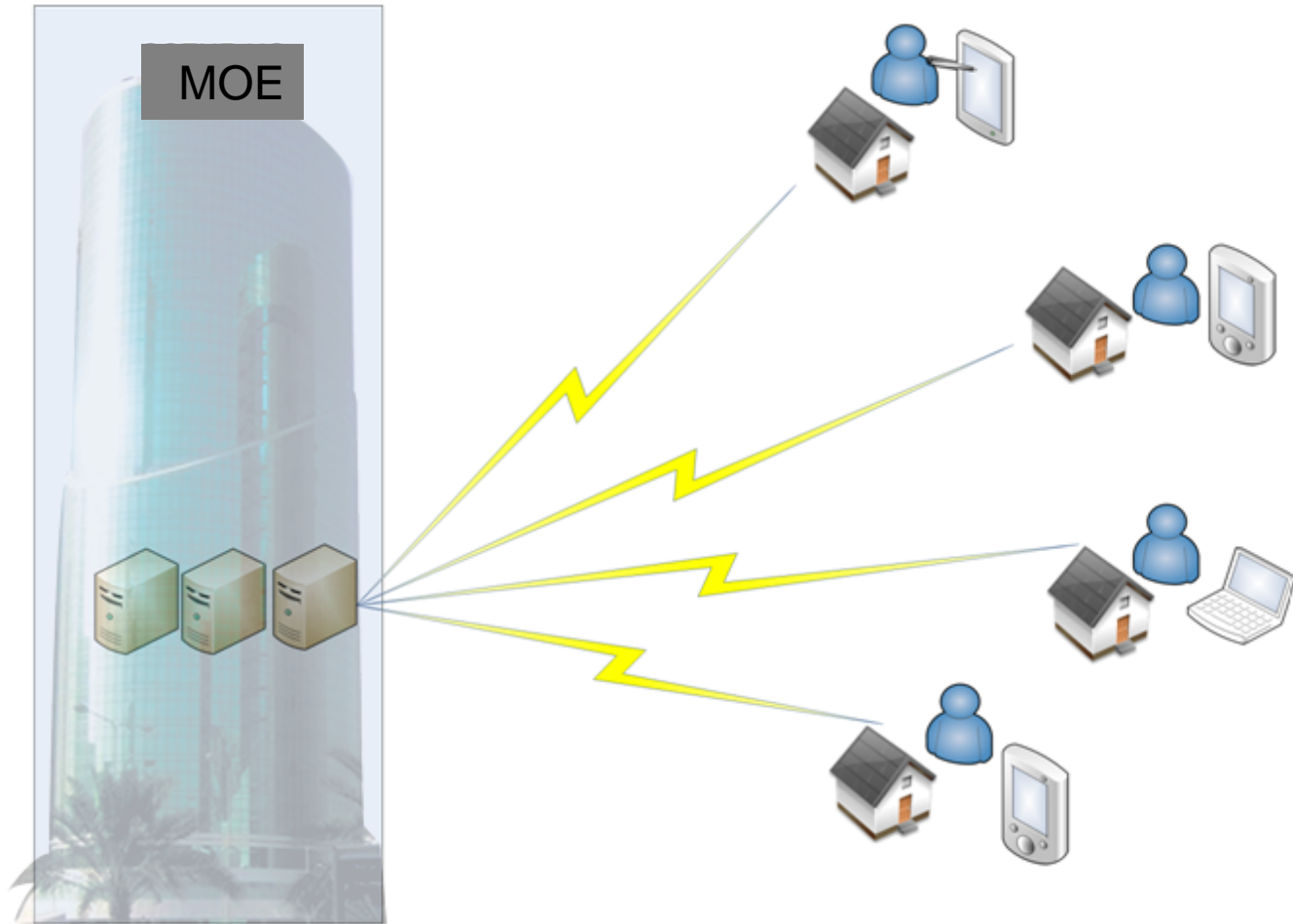
Calculated Hg output

Air	water	Land	Product	General waste	Disposal
0.00	0.00	0.00	0.00	0.00	0.00

QMMIS - Future Plan

- Add the initial tasks to the information systems like the surveys and preliminary assessments.
 - Telecommunications means for technical staff to connect and feed the system with data in the field.
- QMMIS shall host global Mercury Management programs.
- QMMIS can be provided as a stand alone version for interested world wide agencies.

Future Plan



Legend	
Server	Legend Outside
Person	PC/M
House	User
Mobile device	Server
Lightning bolt	Connect
Laptop	Laptop computer
Tablet	Tablet computer

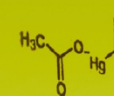


Lessons learned

Positive points

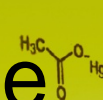
- Creating a good cooperative
- Designing the inventory forms according to the sectors
- The ministry of Environment could collect and obtain a lot of information and data.

- The ministry of environment in coordination and cooperation with
- ministry of health,
- ministry of education
- Identify the gaps in the environmental legislation regarding the use of mercury and compounds.
- Create a good public awareness



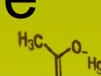
difficulties

- The inventory groups faced some difficulties to collect information and data from the light and medium industries due to the lack of knowledge.
- Facing some difficulties to obtain copies of some studies due to rights of confidential.



Future activities

- Completion of the second phase, especially the second stage concerning the collection and analyzing of the environmental samples (air and soil samples).
- Drafting the national action plan .
- approval of the national action plan by the ministers.
- Submitting the plan to the secretariat of the United Nation Environment Program.
- Investigating the possible options to establish a special mercury storehouse.



Thank You

