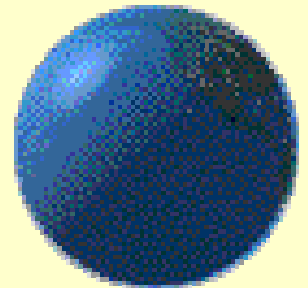


**MALE' DECLARATION ON CONTROL AND  
PREVENTION  
OF AIR POLLUTION AND ITS LIKELY  
TRANSBOUNDARY EFFECTS FOR SOUTH ASIA**

**Progresses in Iran**  
(COUNTRY PAPER)

**By**

**Masood zandi  
Tooraj Hemati**



# Major Sources of air pollution in Country

- Mobile sources, especially road traffic.
- Stationary sources:
  - large and small industrial processes.
  - Power plant industries
  - -Refinery and petrochemical industries.

## **Sources of Air pollution (in Male monitoring site)**

- ☐ No large or medium industry located in site.
- ☐ Small scale manufacturing of agricultural implements.
- ☐ Asphalt and sand manufacturing.
- ☐ Plying of vehicles.

# *Measurements and Controls*



2008年8月26日星期二

# Measures to control emissions of air pollutants

- ☐ *Saving of Energy by using fuel Intelligent card.*
  - ☐ *20 Years old commercial vehicles phased out in tehran*
  - ☐ *Improvement of Fuel Quality*
  - ☐ *producing of automobile with low fuel Consumption*
  - ☐ *Expand the public transportation( rail transportation, metro,....)*
  - ☐ *Expand to using of the natural gasses in Transportation.*
- 
- *Increasing of Air Pollution measurement stations*

# Measures to control emissions of air pollutants (con...)

*\* Improvement of emission standards in vehicles and motorcycles produced in country. (Presently the countries standards are Euroll and after Q years later this standard changes to EURO III)*

☐ *-Increasing in the technical examination of automobiles*

☐ *To promote the general culture level in optimization of energy consumption*

☐ *Implementation of CDM projects by Department Of the Environment.*

# Impact assessment activities

- Following of Survey air pollution Impact Assessment on Health.
- Following of Survey air pollution Impact Assessment on Crops.
- Corrosion Projects.

- Survey air pollution Impact Assessment on Health

- \*Information collection regarding mortality due to Air pollution.**

- \*Establishing continued relation with ministry of health, cure and medicine training about Exchange of Information.**

- \*Recognition of kinds of diseases aroused from air pollution.**

- \*Information collection regarding effects of Air Pollutants on human health.**

- \*Determining portion of each pollutants about increasing diseases.**

- \*Study of the mitigation (reduction) of Air Pollution and presentation of necessary methods.**



# **Crop Assessment**

- \*Iran is one of the largest countries in the region. Iran Have a growing industry with potential consequences of air pollution.

\*Though over two third of the country is desert, agriculture is one of the main land use applications all around the country producing a number of crops.

- \*The wide range of temperature fluctuation in different parts of the country and the multiplicity of climatic zones make it possible to cultivate a diverse variety of crops.

\*including cereals (wheat, barley, rice, and maize (corn)), fruits (dates, figs, pomegranates ,melons, and grapes).

\*vegetables, cotton, sugar beets and sugarcane, pistachios, nuts, olives, spices e.g. saffron, tea, tobacco, and medicinal herbs.

- \*We intends to assess effects of air pollution on its crops for the first time.
- \* project, it has been decided to examine effects of Ozone on crops in at least four locations in South, Center, North and West of country, which are in the main agricultural area of Iran.
- \*Results of such a study for the first time will report the impacts of air pollution on crops in western Asia and more specifically Iran.
- \*In order to launch the project, it has been decided to examine effects of Ozone on crops in at least four locations in South, Center, North and West of country, which are in the main agricultural area of Iran.
- \*Results of such a study for the first time will report the impacts of air pollution on crops in western Asia and more specifically Iran.

# **Corrosion project**

**\*one station was established on the roof of environmental research center building in Pardisan Eco-park(E :51° 21' 44.7" ; N :35° 46' 25.8"), northwest of Tehran between Hemmat and Hakim highways on November 2006.**

**\*Distance between the station and the nearest residential area is about 500 m.**

**\*In this station sulphur dioxide, Nitrogen dioxide, Ozone, Nitric acid and particulate matter are measured by passive samplers and their tubes are replaced by others every 2 months.**



**\*All diffusive samplers have been sent to IVL for 8 times.(7 times were sent and 1 time will be sent soon.)**

**\*Other samples include 9 metal plates (1-2 mm), dimension 10 x 15 cm<sup>2</sup> each of carbon steel, zinc and copper, in total 27 samples and 9 metal plates (1-2 mm), dimension 10 x 15 cm<sup>2</sup> of painted steel and 9 Portland limestone stone samples.Metal and stone samples have been withdrawn after a year.**

**\*Date of exposure has been on 20 November 2006 and date of withdrawal has been on 12 January 2008.**













# **Desert Dust**



-During last months in some parts of Iran, we encounter to the new air pollution problem with dust Desert storm.

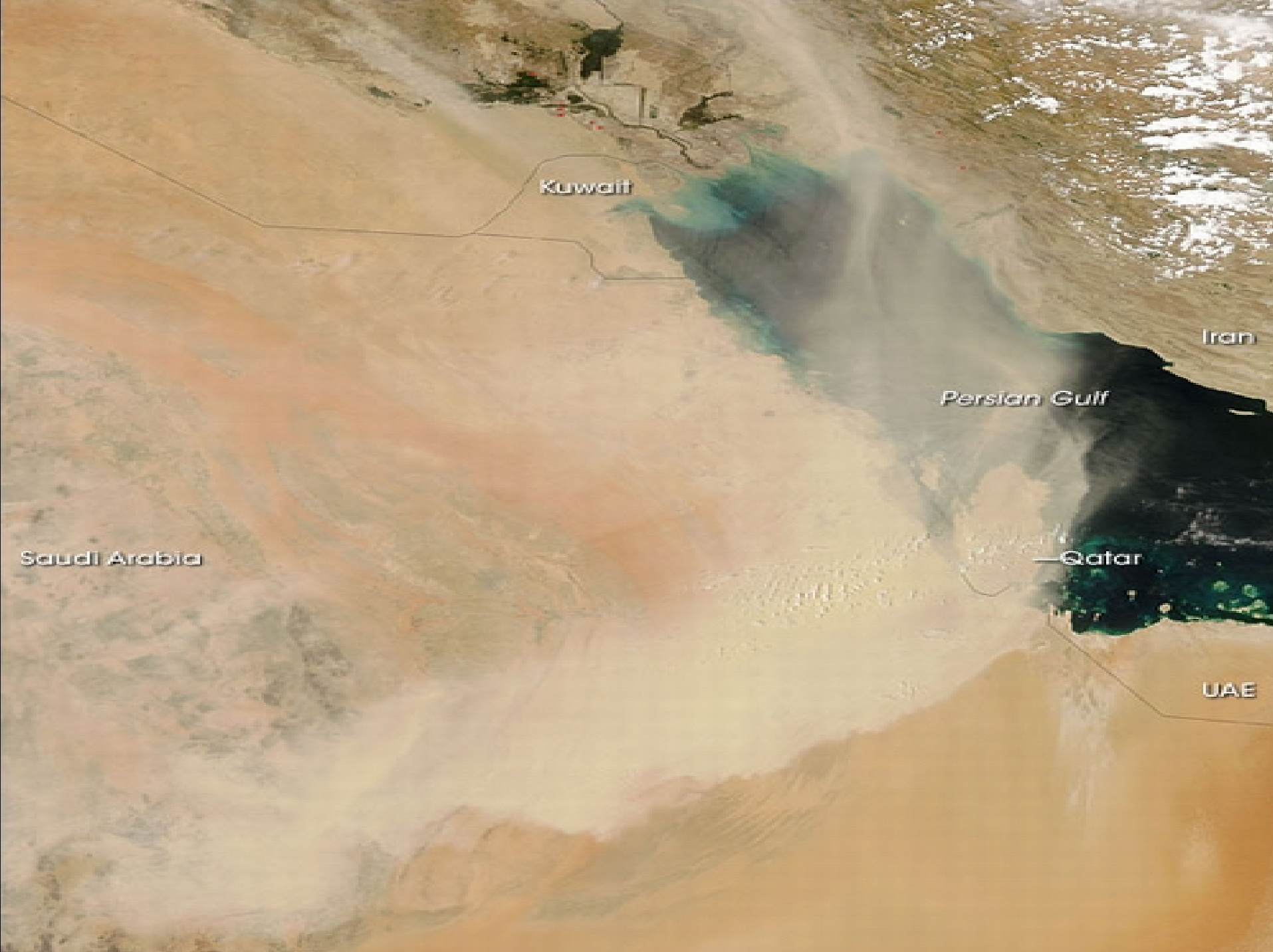
-It was increasing amount of dust till 20% in Ilam, Sanandaj and Ahwaz cities, located in west,southwest and south of Iran that comes from Saudi Arabia and north of Iraq to Iran.

-Drought and Lack of vegetation in Iraq are main reasons/sources for appearing this problem.

-Also the numbers of respiration patients and referral to hospital due to these kinds of disease have been increased in those cities.

-Majority kind of dust is silt dust that come from in the southern part of the Iraq

-Although dust storm exist over the borders between Iraq, Syria, and Turkey, but there are the thickest dust over the border between Iraq and Iran.



Kuwait

Iran

Persian Gulf

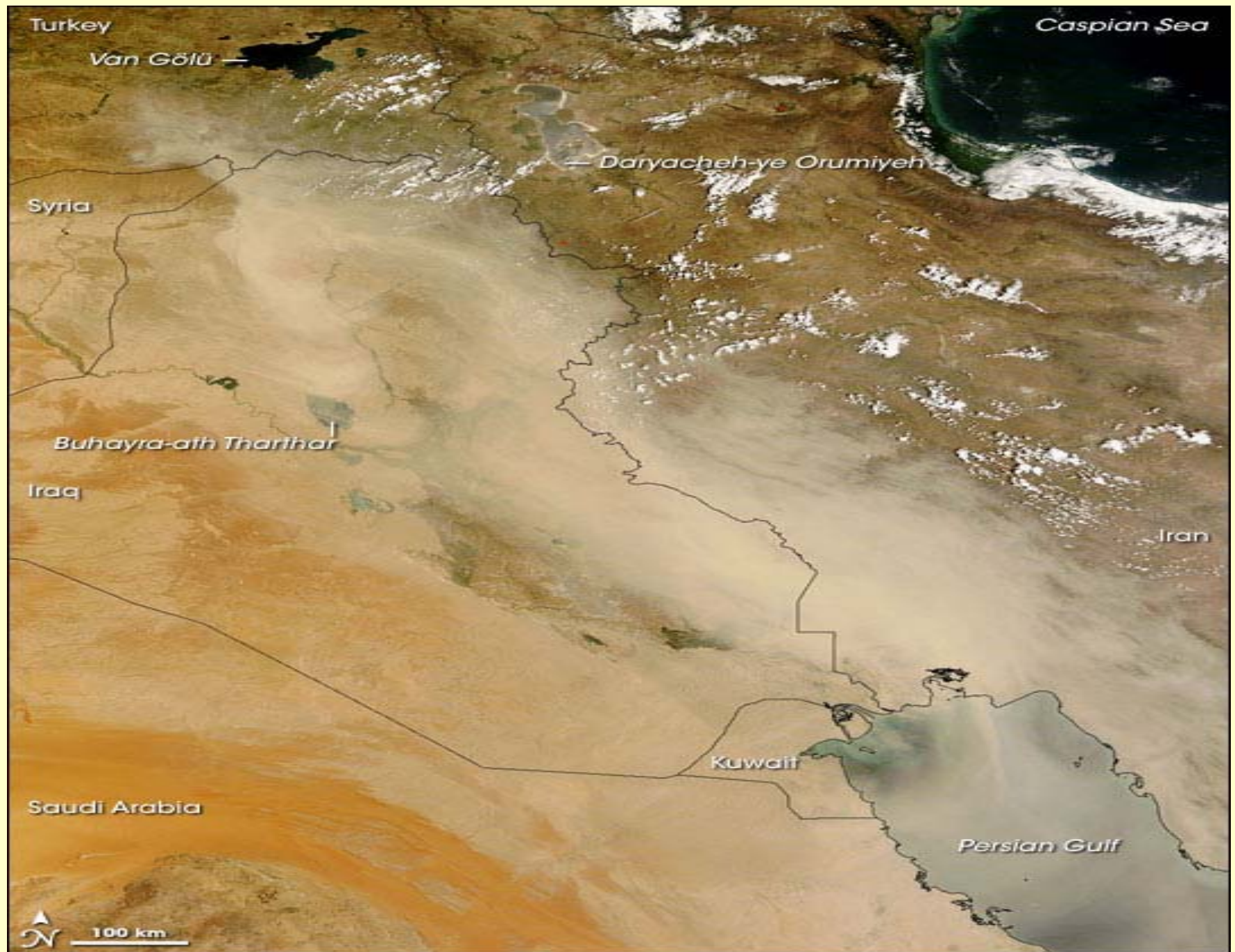
Qatar

UAE

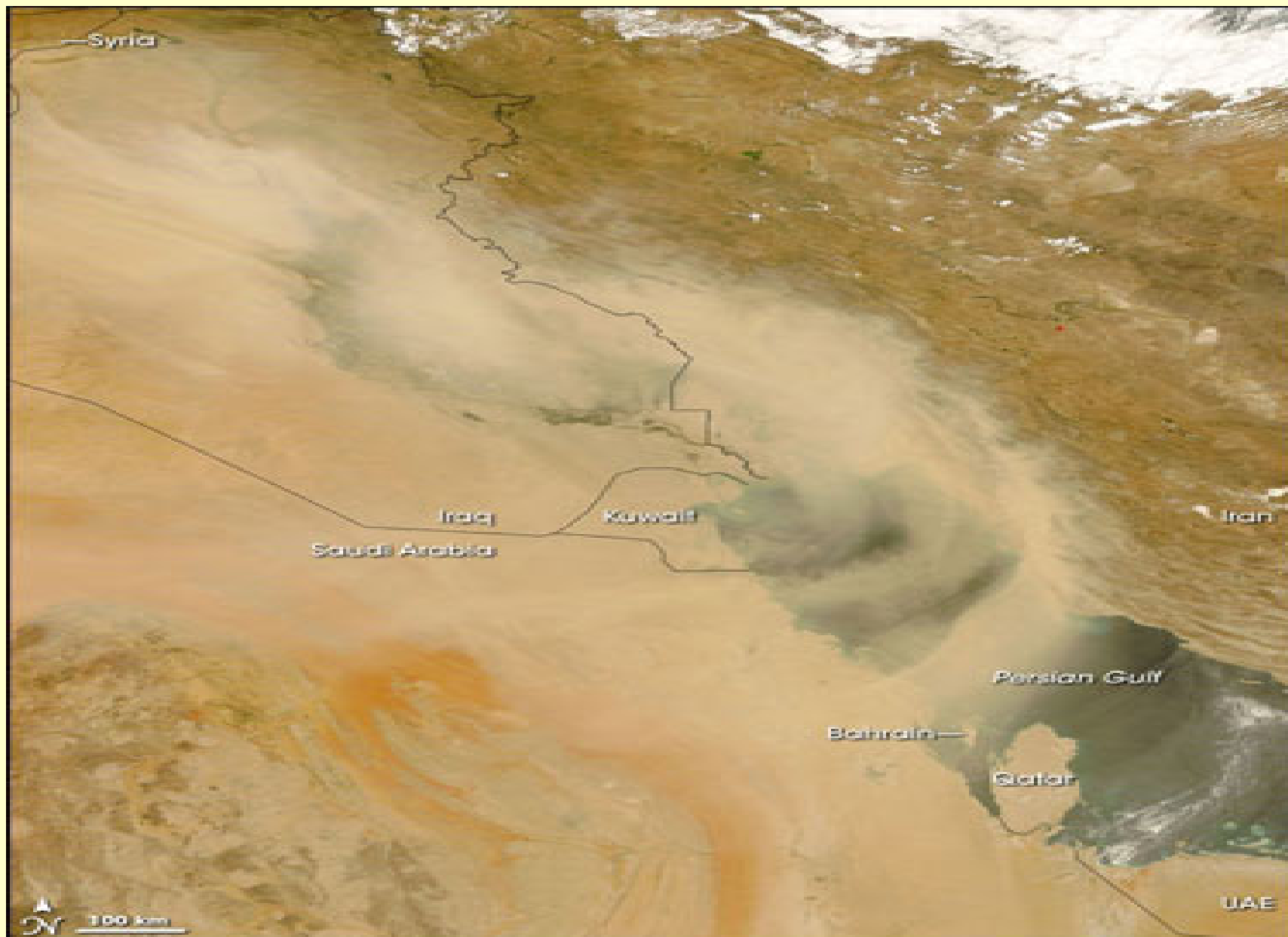
Saudi Arabia

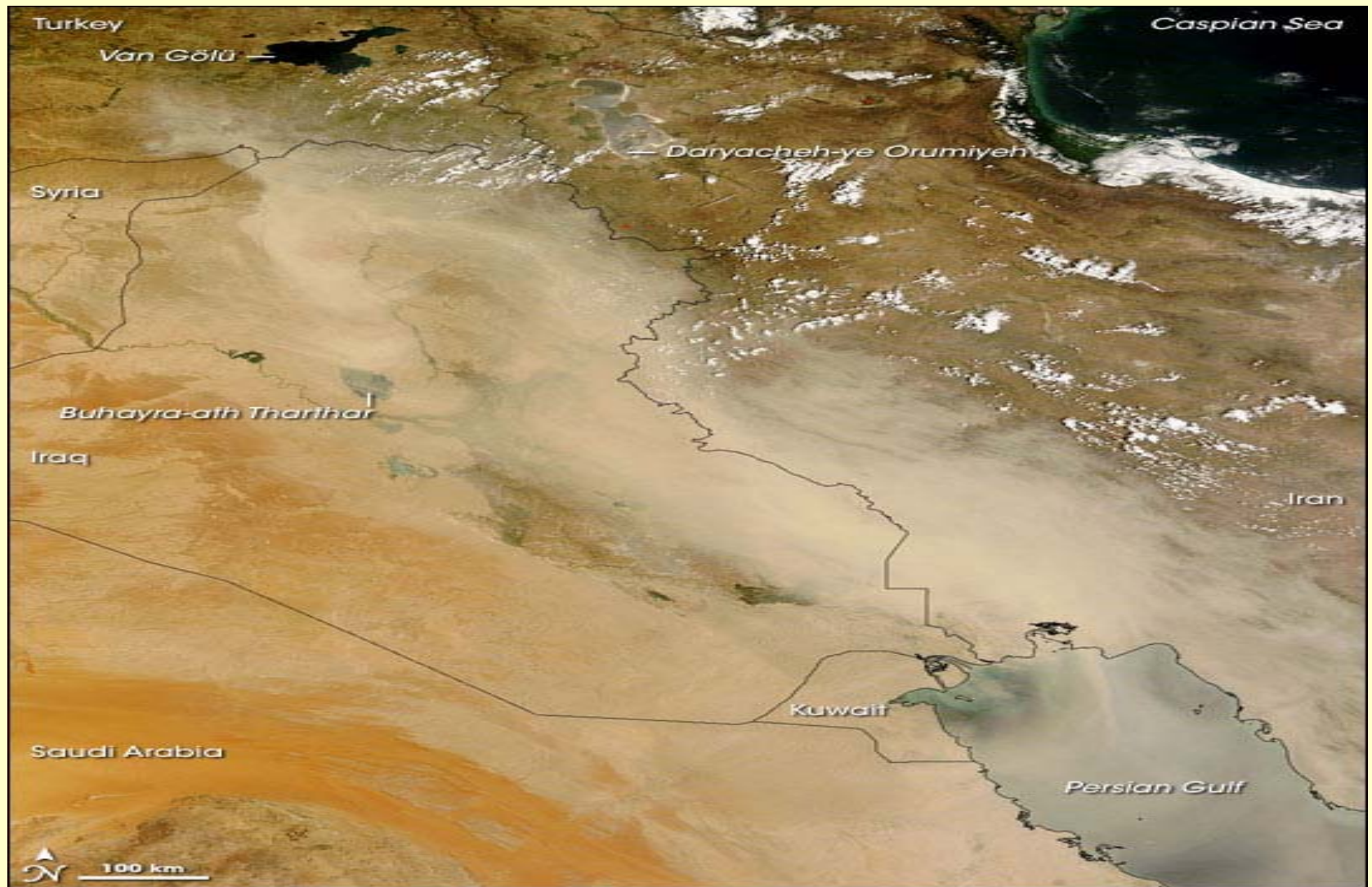










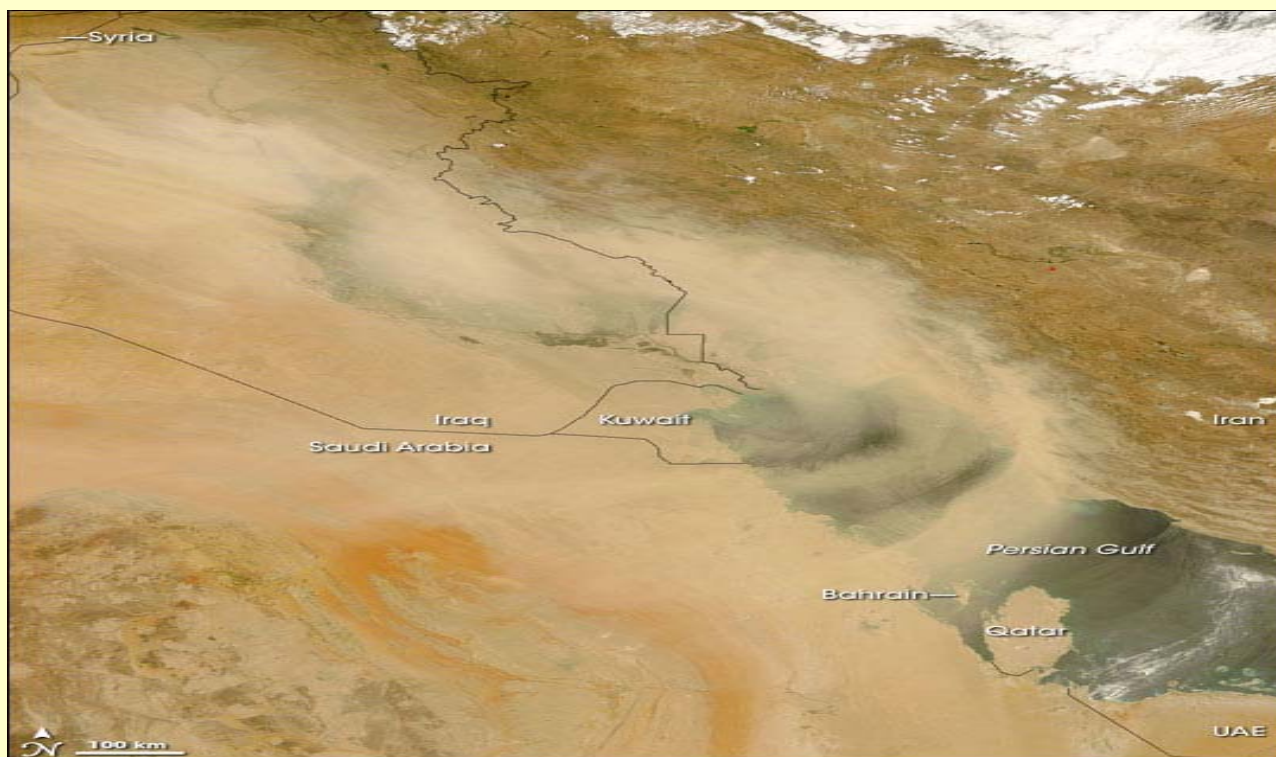




**FARS**

Photo:Hadi Abyar

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# Disadvantages of dust storms

- Soil erosion
- Radioactive-dust transport
- Disease transmission both humans and plants
- Machinery and telecommunication problems
- Closing of business, Warfare
- Reduction of solar power potential

# Importance Notice and Main Points

- Air pollution
- Human Health and Ecosystem endangered
- Diseases transmission
- The mortality increased
- Rain fall sever reduced in Region.
- Sever drought continually in recent years
- Future Climate Change
- Understanding the Frequency
- Erosion process understanding them better.

# Future Plan

- ❑ **to Increase the number of air quality monitoring stations in country (Zahedan site) .**
- ❑ **Setting of Regional air quality monitoring centers with supporting of unep rrc.ap.**
- ❑ **Setting meteorological parameters .**
- ❑ **To establish of Ecological monitoring site for Acidification Impact Assessment on Ecosystems in Ilam Region.**
- ❑ **To establish National Monitoring Network in country.**

## **Future Plan (con...)**

- ☐ **The micro meteorological condition to be considered for locating new air quality station.**
- ☐ **The Periodic training to personnel who are doing air quality monitoring.**
- ☐ **Attempt to on-line monitoring in large industries.**
- ☐ **Attempt to cooperate with governmental and non governmental organizations**
- ☐ **Continuous Monitoring of Pollutant Parameters in large cities.**
- ☐ **To study air pollution Impact Assessment on Health and Crops**



## Future Plan (con...)

- ☐ to promote the general culture to the environmental pollution problems and do people familiar with their responsibilities in relation to decrease pollutants.
- ☐ to promote the cultures of economizing in energy consumption.
- ☐ **to improve in consumption system in both of industry and automobiles engine.**
- ☐ **to exchange and improve in consumption model and to design a suitable model of energy consumption in country.**
- ☐ to develop public awareness.

Thank you