

INECO Conference

Nicosia, Cyprus

from 10th to 11th June , 2009



The Location of Egypt

Arab Republic of Egypt, with an area of almost one million square kilometers, forms the North-Eastern corner of Africa.



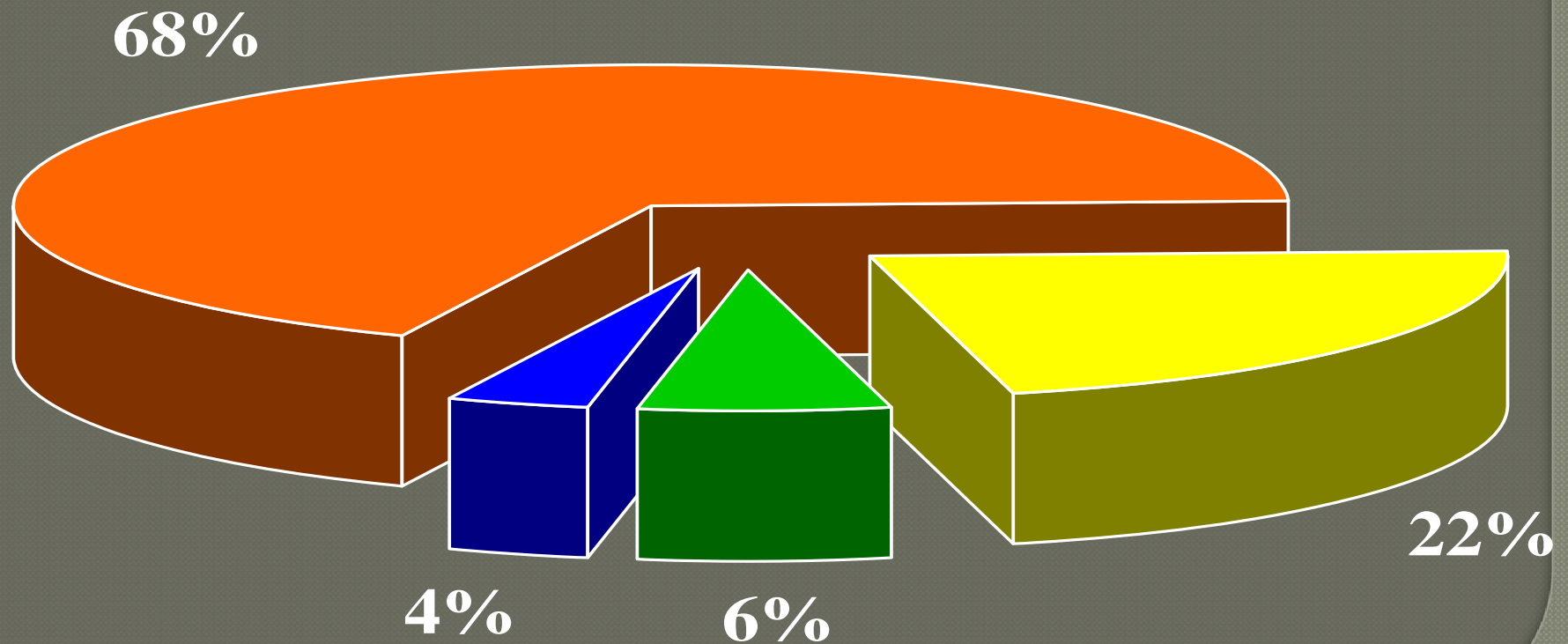
Egypt is divided into four regions:

■ Nile Valley & Delta

■ Western Desert

■ Eastern Desert

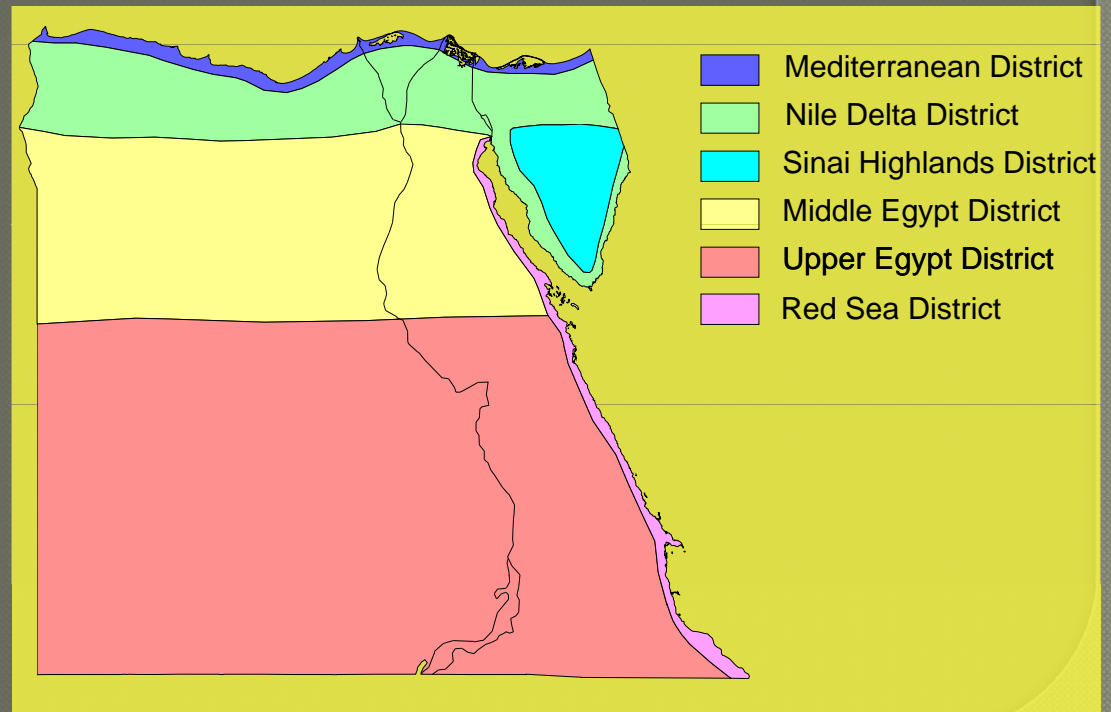
■ Sinai Peninsula



Egypt lies in the dry equatorial region except its northern areas which lay in the moderate warm region with a climate similar to that of the Mediterranean region.

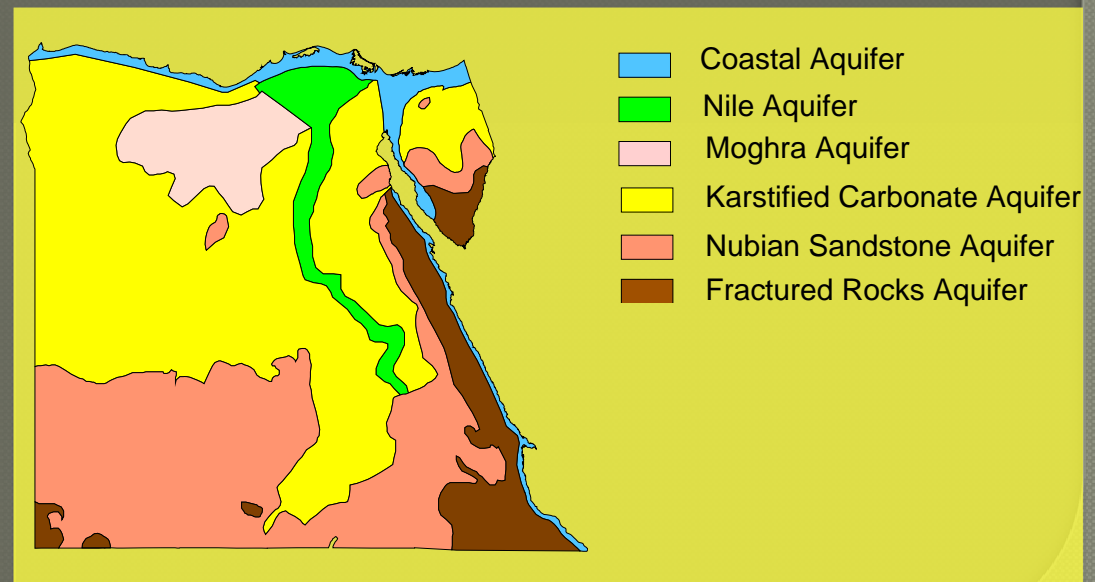
Egypt is divided into six climatic districts:

- ✿ **Mediterranean District**
- ✿ **Nile Delta District**
- ✿ **Sinai Highlands District**
- ✿ **Middle Egypt District**
- ✿ **Upper Egypt District**
- ✿ **Red Sea District**



The hydro-geological framework of Egypt comprises six aquifer systems:

- ✿ The Fissured and Weathered Hard Rock Aquifer System
- ✿ The Karstified Carbonate Aquifer System
- ✿ The Nubian Sandstone Aquifer System
- ✿ The Coastal Aquifer Systems
- ✿ The Moghra Aquifer System
- ✿ The Nile Aquifer System



Water Supply of Egypt

Sources	(BCM) /Year	
	2000	2025
Nile River	55.50	57.50
Shallow Ground Water	5.50	7.50
Deep Ground Water	0.80	2.75
Drainage Water Reuse		
Nile Delta	4.50	8.50
Nile Valley	5.00	5.00
Unofficial	3.00	3.00
Wastewater Reuse	0.20	2.00
Rainfall	0.50	1.50
Desalinization	---	0.25
Losses	(3.00)	(2.00)
Total	72.00	86.00

Water Demand of Egypt

Sector	(BCM) /Year	
	2000	2025
Agriculture	60.7	69.43
Domestic water	4.5	6.6
Industry	7.8	10.56
Navigation	0.3	0.3
Total	73.3≈73	86.89≈87

Water Management in Egypt

- ◉ Water management in Egypt is basically the responsibility of ministry of water resources and irrigation. In cooperation with the following authorities.
- ◉ Ministry of agriculture.
- ◉ Ministry of housing and infrastructure.
- ◉ Ministry of environment

Outline of the Environmental & Social & Economic effects

- ① There are several negative impacts on environment particularly in water pollution.
- ② In some areas social problems arises from water scarcity and pollution.
- ③ The economy in these areas are strongly connected to the fresh water availability.

Main Causes

- Main causes of socioeconomically problems is the scarcity of water and its pollution particularly industrial pollution

Policy initiatives taken by the involved authorities

- The principles of Integrated water resources management are recently under investigation, it seems that is the only way to overcome water scarcity most areas and assure the equitable water supply distribution
- The water pollution is another problem which requires the application of environmental law number 4 for control discharging industrial effluent in water ways

***Reasons why these policies
have been more or less
successful is the need to aware
the inhabitants of the
important of these policies ,
The awareness campaign is a
must in this way***

***The problems must be treated by
a careful analysis of water
management system and the
awareness campaigns***

INECO Implementation in the case study region

- **The selected area was a typical area suffers from water scarcity and pollution this area is bar besandilla area in dekahliha government.**
- **The population mainly working in agriculture**

Pollution in Bahr Basandeila Canal

- ❖ **Pollution in Bahr Basandeila Canal is due to Sewage wastewater.**
- ❖ **Agriculture Drainage Water**
- ❖ **Industrial effluents**

◎ *Several workshops have been held to stakeholders, different questionnaires were distributed in order to have their response also visit to this area on several occasion to meet with stalk holders*

The policy proposed by INECO to handle the s problems were based on the analysis and the discussion with the stakeholders, The following measured are agreed to carry on:

The firm application of environmental law regarding the industrial effluent.

The use of water for domestic purposes must be don after careful analysis , usually the underground water up to 30 or 40 meters depths are polluted with sanitary draining careful analysis must be done.

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- ***The cooperation between stakeholders and the ministry of water resources Is important to avoid drought problem and assure a viable water management policy***

● ***The most important lesson learned from INECO is the importance of discussion and awareness to stakeholders in order to explain the problems the their consequences.***