

# INTEGRATED WATER MANAGEMENT IN EGYPT

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# *Water Use :*

- ▶ Domestic and Potable
- ▶ Industry
- ▶ Agriculture
- ▶ Navigation
- ▶ Fish-farming
- ▶ Power Generation
- ▶ Recreation
- ▶ Environment
- ▶ Protection from Sea Water Intrusion

# *Water Resources :*

- ▶ Nile
- ▶ Rain
- ▶ Groundwater Flash Floods
- ▶ Desalination
- ▶ Cloud Seeding
- ▶ Dew Harvesting

# *Recycling :*

- ▶ Land Drainage
- ▶ Treated Sewage
- ▶ Treated Industrial Effluent
- ▶ Artificial Recharge

# *Irrigation System In Egypt :*

- ▶ Supply Management
- ▶ Rotation
- ▶ Reuse of Drainage Water
- ▶ HAD Reservoir, Conveyance, On Farm
- ▶ Irrigation Improvement Projects
- ▶ Drainage Projects

# *Constraints :*

- ▶ Mismatch Between Supply and Demand
- ▶ Land Encroachment
- ▶ Precise Estimation of Cultivated Land
- ▶ Over Irrigation of Water Consuming Crops
- ▶ Inequitable Distribution
- ▶ Adequacy of Supply
- ▶ Increasing losses
- ▶ Pollution
- ▶ Change of Gravity Systems in New Lands

# *Definitions :*

- ▶ **Water Resources Management :**  
The whole set of technical, institutional, managerial, legal and operational activities required to plan, develop, operate and manage water resources for sustainable use.

Water Resources Management can be considered as a process including all activities of planning, design, construction and operation of water resources systems.

- ▶ ***Integrated Water Resources Management:***  
Integrated Water Resources Management (IWRM) takes account of :
  - i) All natural aspects of the water resources;
  - ii) All sectoral interests and stakeholders;
  - iii) The spatial variation of resources and demands;
  - iv) Relevant policy frameworks (national objectives and constraints);
  - v) All institutional levels.Hence, it has three main dimensions: the time dimension and a number of cross-cutting issues.



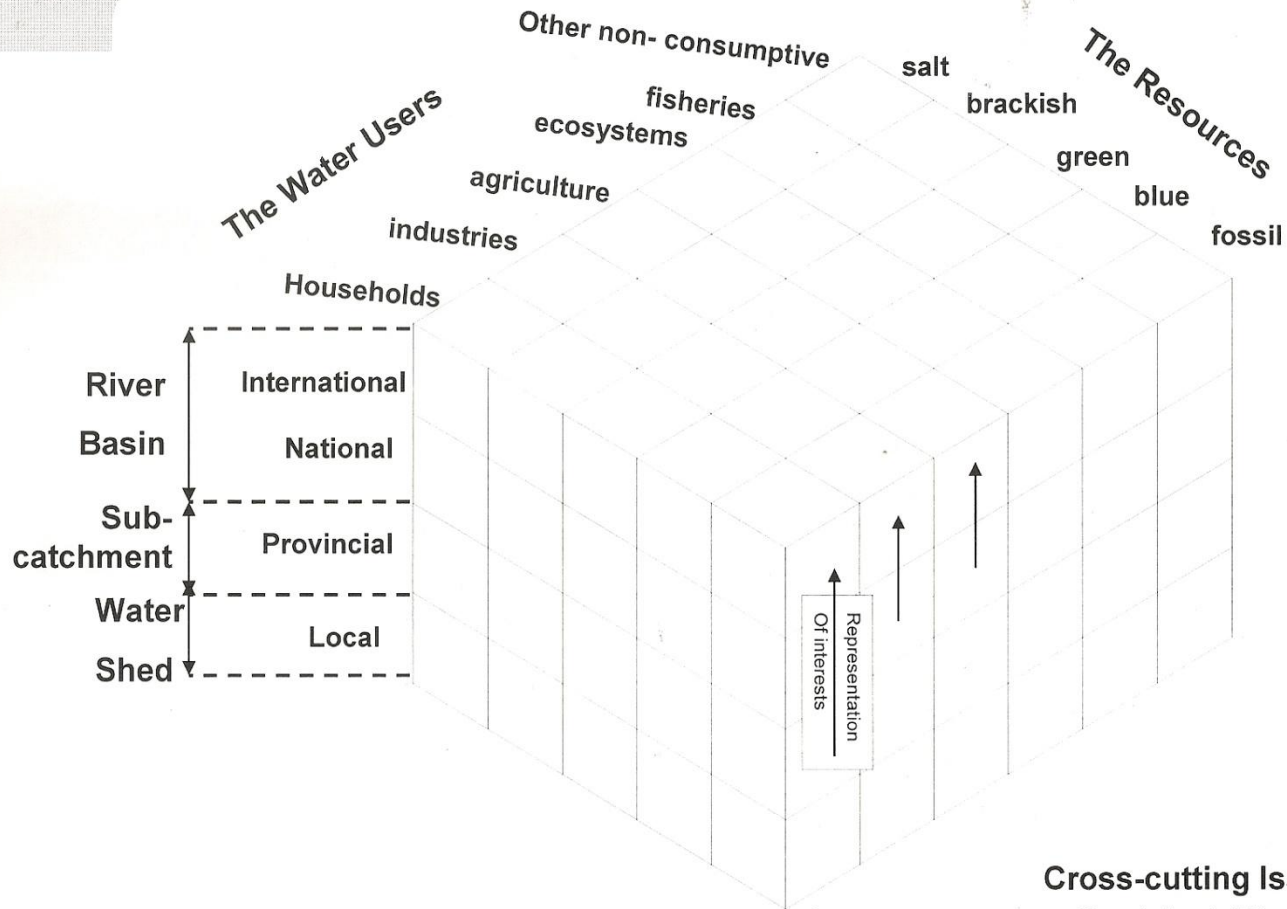
# *Integrated Water Management:*

- ▶ Integrated Resources
- ▶ Integrated Activities
- ▶ Stakeholders Participation
- ▶ Political Will
- ▶ Institutional Reform
- ▶ Change of Behavior

# *Closing Statement :*

Integrated Water Management is meant for the integration of resources (water, soil, crops), the integration of water sources (surface, ground, rain, recycled, desalinated,.... Etc), integration of quantity and quality and integration of activities (domestic, agriculture, industry, power generation, fish-farming, navigation).

The objective of Integrated Water Management is to maximize water use efficiency and to get the maximum financial return of unit water volume, this does not exclude the importance of the social value of Water as an important element in maintaining food security and national stability



- Cross-cutting Issues**
- Sustainability
  - Public Sector Interests