

Water Governance In Libya

Challenges and Responses

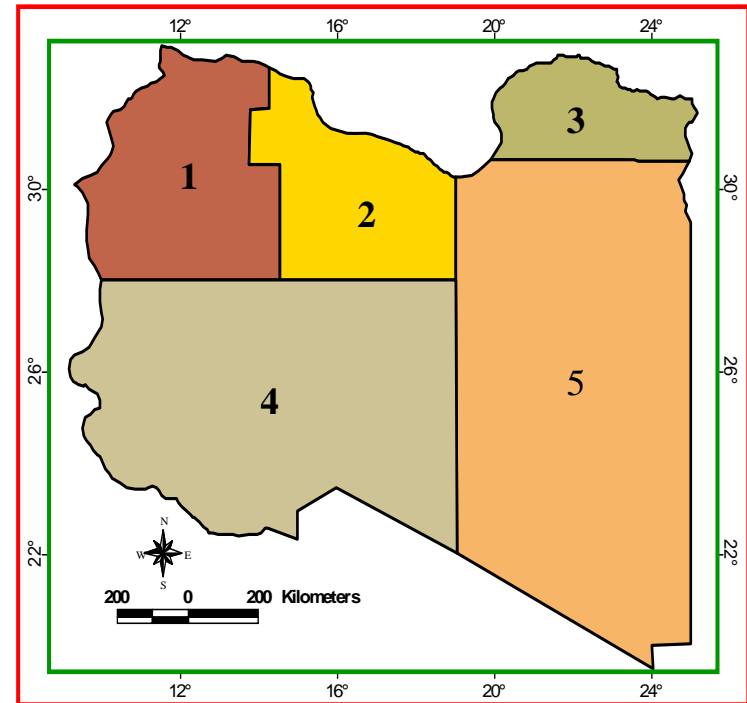


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Definition

The term governance ● encompasses the political, economic and social processes and institutions by which governments, civil society, and private sector make decisions about how best to use, develop and manage water resources



Libyan Government

The Libyan government is well aware of the risks and challenges it faces in the water sector. Therefore, the governance issue was given early to the *General Water Authority* (GWA), which established in 1972 according to the law 26/72 issued by the *Revolution Command Council* to be in charge of organizing water resources framework for Libya.



Goals of this lecture

- are to demonstrate: ●
- * Libyan water constraints ●
 - * Steps to overcome the challenges ●
 - * Water governance practice in Libya ●

Climate and Water Resources of Libya

(Libya is one of the most water scarce countries in the world) ●

Rainfall ●

Rainfall is limited to the coastal area showing an average of 400 – 600 mm in Jabal Akhadar region dropping to 200 – 400 mm on the north west coast. Rainfall declines rapidly inland, and in the desert zones is negligible. ●

Temperatures ●

Temperature often hot due to the influence of burning winds coming from the desert. This hotness moderated by the cooler air coming from the sea, thus *Mediterranean climate* prevails during the year along the coast. Whereas desert zones show mean summer temp. around 40 degrees. ●

Climate and Water Resources of Libya

(Libya is one of the most water scarce countries in the world) ●

Water Resources ●

Libya's water resources are limited to precipitation, runoff and groundwater recharge in the north of the country. ●

Although Libya depends on groundwater as a main resource for its development, several attempts had been taken by its policy maker to make use of other water resources available to compensate the deficit faced in the demand. ●

- Desalination ●
- Waste water reuse ●
- Great Man-Made river ●

Challenges in water resources and institutions

Water resources challenges ●

* Groundwater overdraft ●

- mismatch between water availability and demand in the coastal region has led to significant unregulated groundwater development with drawdown of water levels up to 4 meters a year. ●
- the rapid and unregulated development of agriculture in the desert zones create a risk to the sustainable management of quantity exploited from desert aquifers. ●
(Irrigated area in the desert rose from 60 000 ha in the late 1990 to about 200 000 ha in 2006). Caused by private sector investment. ●

Challenges in water resources and institutions

- * **Great Man-Made river system**
 - GMMR now is the most essential water resources for Libya providing 2.4 billion cubic meter of water a year. Current plans allocate 70% of the produced water to agriculture.
 - A risk created in the coastal areas that this precious resource will be restricted to low value uses.
- * **Water quality deterioration**
 - increase in salinity content
 - inadequate sewage collection and treatment
 - Poor drainage and over irrigation have led to degradation of soils in some parts of Libya as is the case in the southwestern of the country.

Challenges in water resources and institutions

Institutional Challenges ●

In 1972 Libya created the General Water Authority (GWA), with ●
broad mandate for:

- water policy and regulation ●
- study and research and supervising water development ●
projects. ●

Additional tasks were later added include: ●

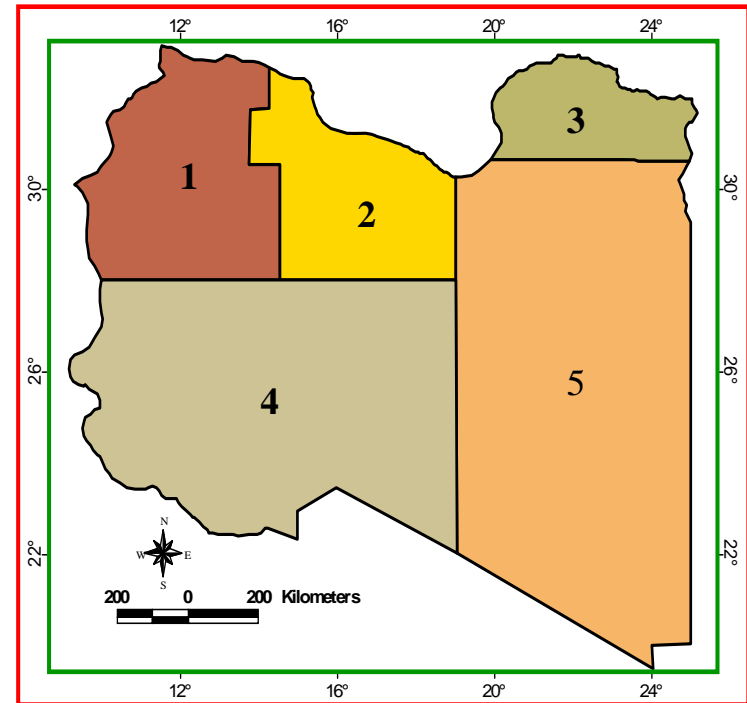
- dam construction ●
- irrigation ●
- drainage and soils ●

Challenges in water resources and institutions

GWA Structure ●

GWA organized in six general directories: ●

- planning and follow-up and statistics ●
- water resources ●
- dams ●
- irrigation and drainage ●
- soils ●
- finance and administration ●
- 6 branches of authority at the five zones ●



Challenges in water resources and institutions

Another Libya's institutions deal with water management ●

- Environmental Water Authority (EGA) ●

- Secretariat for Agriculture ●

- Agricultural Research centre ●

- Secretariat of Planning ●

- General Electricity Company ●

- Great Man-Made River Authority ●

(have separate sometimes overlapping responsibilities) ●

Challenges in water resources and institutions

The Problems ●

- recent decentralization (2001) of responsibility for water management and regulation to the local government (Sha'abiyat). Causing loss of control over water resources development and management ●
- overlapping of mandate between GWA and other agencies ●

Responses Steps

In response to the challenges faced by institutional sectors, GWA initiated a process in 1998 to prepare a new sector strategy. By the year 2002 a draft of the *National Strategy for Water Resources Management 2000 to 2025* was issued. ●

(The strategy contains an incisive diagnosis of the water sector and proposes a clear strategy for sustainable sector developments) ●

Responses Steps

Principle elements of the response plan given by the national water strategy ●

1. Development of human and institutional resources ●
2. Decreasing the water deficit ●
3. Developing the conventional and non-conventional water resources ●
4. Protection of water resources against pollution ●
5. Cost recovery of providing water supply services ●
6. development water laws ●
7. Environmental protection. (fighting desertification) ●
8. Development the technical cooperation in the areas of water resources management. ●

Responses Steps

Recent step ●

Due to some of the responses has not yet been matched by ● effective measure to reduce the demand, the Libyan government has issued the Law number 14 of 2007 by which GWA re-structured in order to face the previous challenges and those might be faced in the future.

The Summary

Implementing the strategy represents a major challenge in the light of the resources constraints and institutional issue. ●

This challenge has to start with: ●

1. re-establish sector governance and to empower GWA to manage the resource sustainability and efficiently on integrated basis. ●
2. priority needs to be given to restore capacity to carry out its tasks. ●

(These two proposals enable Libya to recover control over both quantity and quality of the nation's precious water resources) ●

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Challenges and Responses

Hope we all have sustainable ●
Resources and safe life ●