



GROUNDWATER GOVERNANCE IN JORDAN 2012

GEF Project “Groundwater Governance:
A Global Framework for Country Action”
(FAO, GEF, IAH, UNESCO-IHP, WB)

Regional Consultation
Arab States Region

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*Prepared by Assistant Secretary General of Technical Affairs of
the Ministry of Water and Irrigation, Eng. Ali Subah*



وضعنا المائي هو تحد استراتيجي لا يمكن تجاهله
وعلينا ان نوازي بين حاجات الشرب وحاجات
الصناعة والزراعة ويظل موضوع مياه الشرب
هو الأساس والأهم.

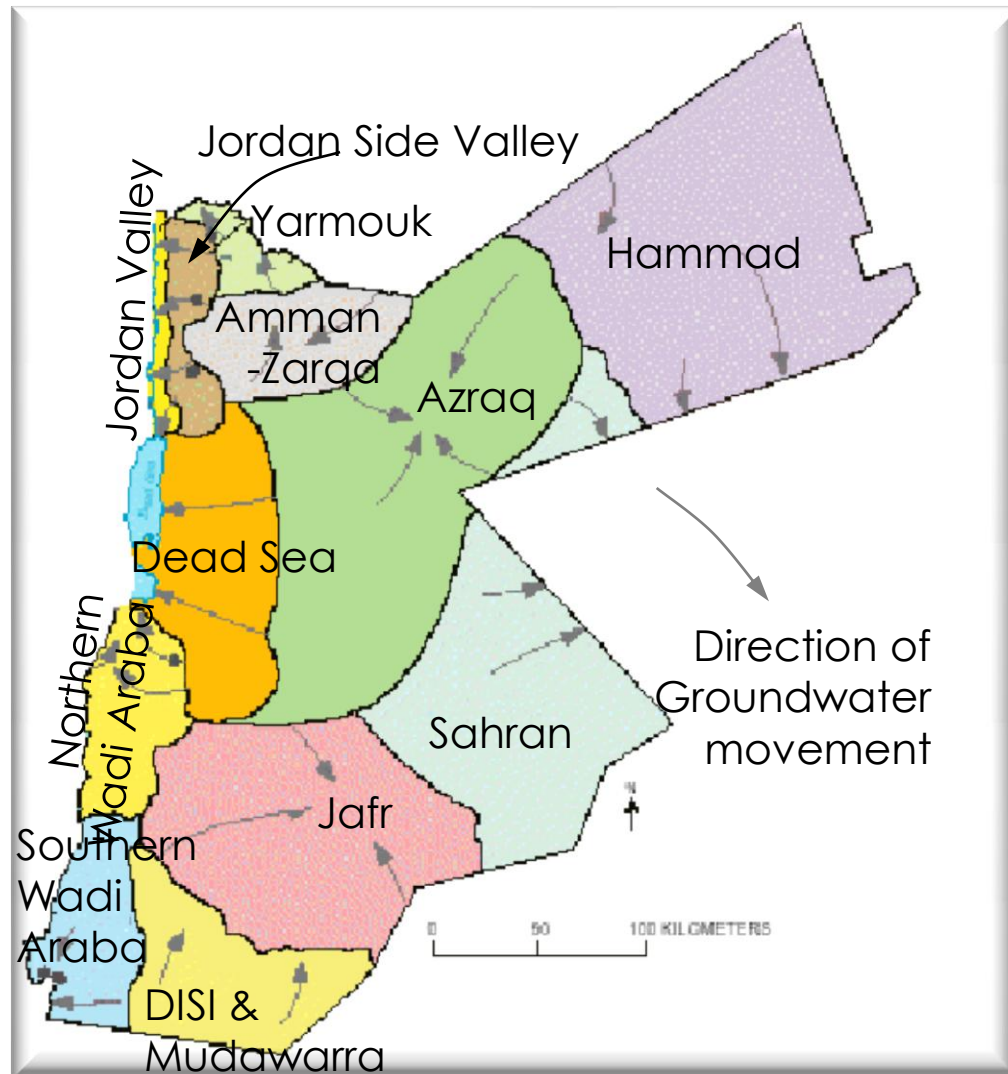
عبدالله الثاني بن الحسين

"Our Water situation forms a strategic challenge that cannot be ignored. We have to balance between drinking water needs and industrial and irrigation water requirements. Drinking water remains the most essential and the highest priority issue".

H.M. King Abdullah II

November 7, 1999

JORDAN AMONG THE 4 MOST WATER-SCARCE COUNTRIES IN THE WORLD



demand
outstrips
supply by
200%

annual per
capita water
availability of
120 – 145 m³



CHALLENGES

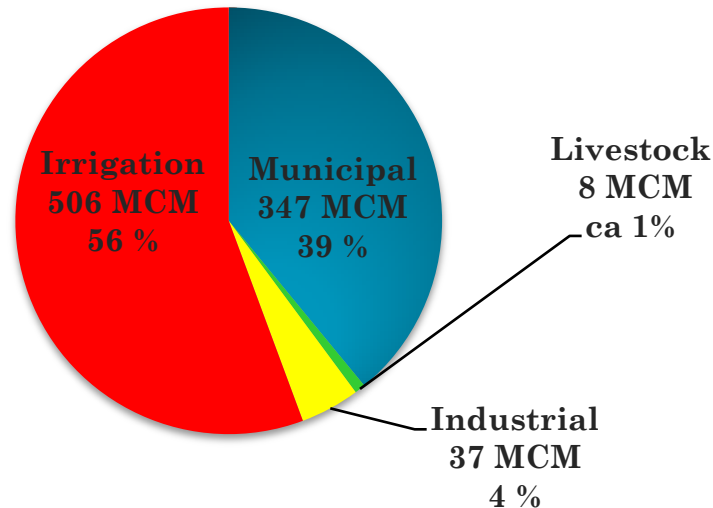
- Population growth (2.5%/year) and large refugee influxes.
- Rising water needs for expanding economic sectors, such as industry and tourism.
- High rate of non-revenue-water at around 40%.
- Limited funding and private sector participation.
- Coordination with neighboring countries of shared water resources.
- Limited energy sources and high dependency on foreign sources (96% of energy comes from imported oil and gas).
- Climate change predictions: 20-25% decrease and strong variability of rainfall; temperature rise of 2°C
- Long distances between areas of high consumption and of abstraction -> high transportation costs.



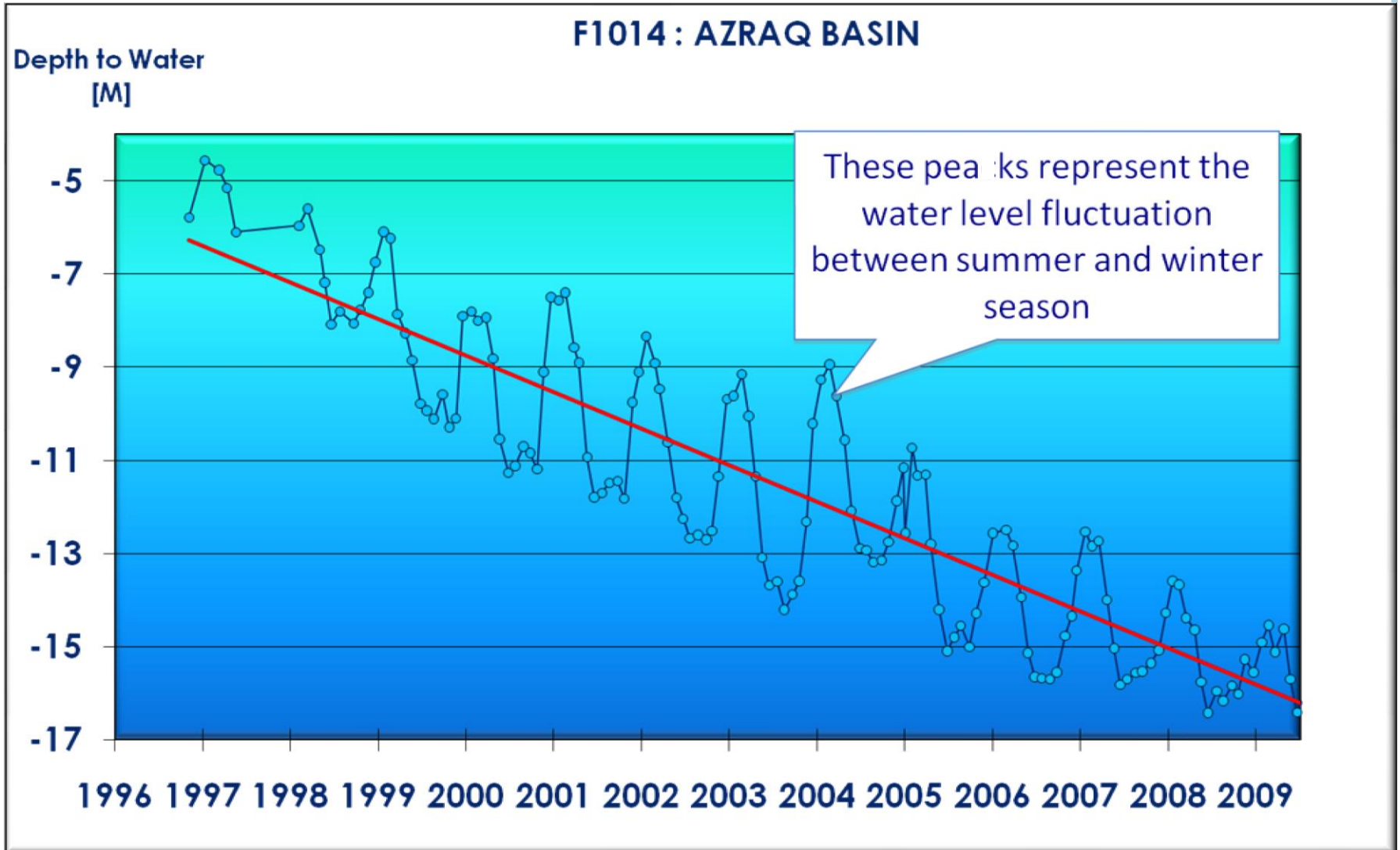
GROUNDWATER RESOURCES

- Jordan is heavily dependent on groundwater resources (over 50% of supply).
- 10 out of the 12 groundwater basins are over-exploited.
- Agriculture is the largest water consumer with 56% of the water use in Jordan in 2011.

Water consumption in Jordan by sector (2011)



DECREASING GROUNDWATER RESOURCES



CHALLENGES IN GW GOVERNANCE

Property rights:

- Misperception of water users ('groundwater on their property is theirs')

Incentives:

- Only recent implementation of abstraction fees (2002)
- Heavily subsidized fees, non-reflective of true value of water
- Free abstraction amounts for farmers of 150.000 MCM

Enforcement:

- Illegal wells and free-riding abstraction activities
- Weak groundwater (quantity and quality) monitoring
- Lack of alternative/innovative solutions
- Non-aligned sector strategies (i.e. between groundwater policies and land-use planning as well as agricultural policies)



GROUNDWATER GOVERNANCE (GW)

- The aforementioned challenges highlight the need for a more comprehensive approach, which takes into account all dynamics of groundwater usage.

- GW governance is the process by which groundwater resources are managed through:
 - Responsibility,
 - Participation,
 - Information availability,
 - Transparency, and
 - Rule of law.

- It is the art of coordinating administrative actions and decision making between and among different jurisdictional levels – one of which may be global.

(Adapted by the Authors of the Project's Thematic Paper 5 drafting group after Saunier and Meganck. 2007. Dictionary and Introduction to Global Environmental Governance)



MEASURES TOWARDS GOOD GW GOVERNANCE IN JORDAN

Participation / Transparency:

- Engaging key stakeholders in a dialogue for the joint elaboration of an Action Plan for Sustainable GW Management.

Application of Responsibility:

- Promoting water-friendly business opportunities and efficient water practices on-farm and at community level.
- Awareness-raising and training of water users for more controlled protection of water resources and catchment areas.

Transboundary GW governance:

- Implementing joint programmes / MoU with water-sharing neighbours



MEASURES TOWARDS GOOD GW GOVERNANCE IN JORDAN

Institutional capacity-building:

- Developing guidelines for water resources protection for cross-sector usage.
- Researching and applying artificial recharge of aquifers.

Information availability:

- Applying telemetric monitoring devices for water production wells.
- Centralizing GW monitoring tasks within the Ministry of Water and Irrigation.

Rule of Law / Transparency:

- Reviewing the GW Bylaw and the GW tariffs with representatives of water users



THE CASE OF....

- The Highland Water Forum (HWF)
 - a multi-stakeholder dialogue

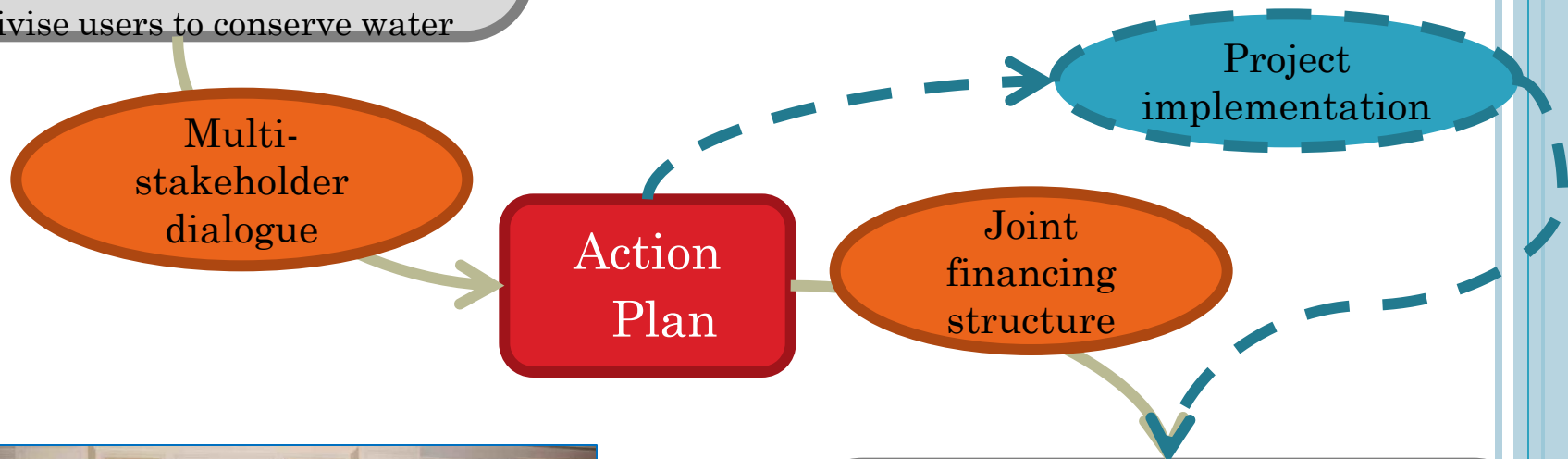


- GW resources protection
 - zoning, guidelines and awareness-raising

- Illegal acquisition of lands (grabbing); agriculture being the cheapest proof of long-term investment
- Poor law enforcement and inequity of implementation
- Low water tariffs do not really incentivise users to conserve water

ENGAGING STAKEHOLDERS IN A DIALOGUE

-THE HIGHLAND WATER FORUM-



- Sustainable management of groundwater
- Improved trust between the public and the water-governing authorities
- Synchronize and channel donor funds towards the aims of the joint interests of the MWI as well as the local societies

THE 4 PILLARS OF THE HIGHLAND WATER FORUM-ACTION PLAN



On-farm water efficiency



Institutional strengthening



Local community development



Alternative business opportunities

16/10/2012



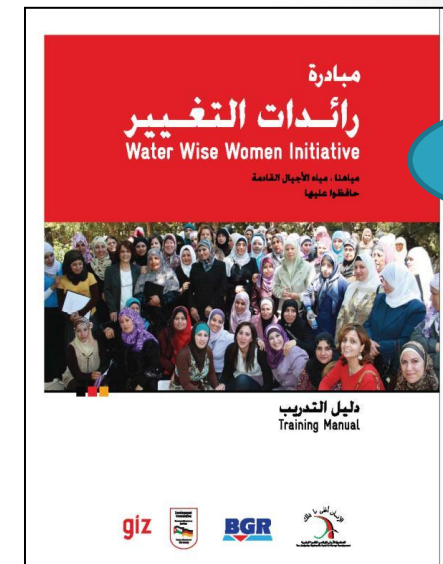
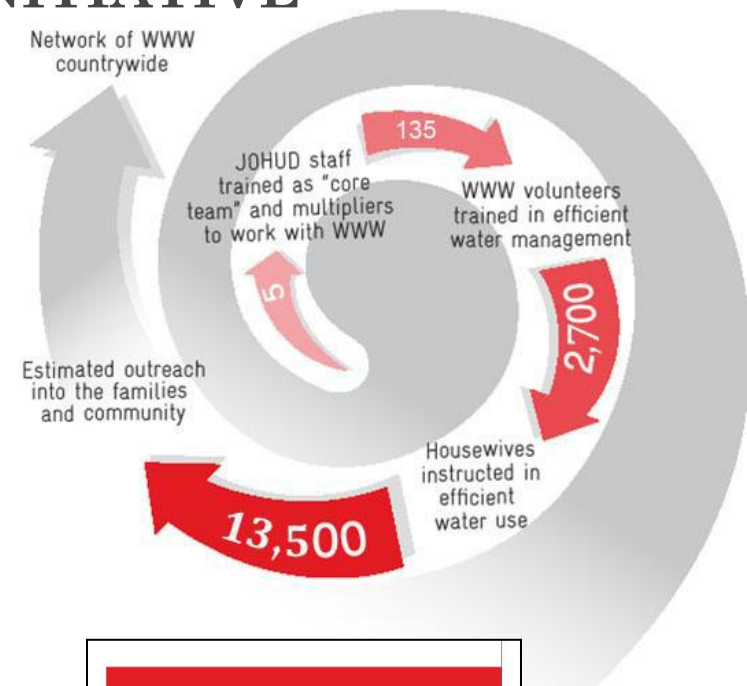
COMMUNITY-BASED AWARENESS-RAISING ACTIVITIES -THE WATER WISE WOMEN INITIATIVE

Approach:

- Active female volunteers who participate in community work are trained in efficient household water usage (protection, hygiene, plumbing).
- They are then asked to pass on this knowledge to at least 10 persons in their communities.

Achievements:

- 9 communities approached
 - 2,700 Water Wise Women trained
 - 13,500 people are expected to have benefited from the wider outreach activity
- > 2 female plumbers have emerged from the specialised trainings.



Available upon request

THE WAY FORWARD



For Jordan:

- Upscaling the above mentioned efforts (creating the right policy framework, increasing consultation rounds with stakeholders, etc.)

For the Region:

- Towards a regional/global framework:
 - Jordan is proud of its achievements and eager to contribute lessons learned into regional guidelines, standards and indicators in order to receive new impetus and to enhance current efforts.
- Towards better transboundary water management:
 - It is important to shift the debate away from cross-boundary issues and to instead focus on mutual interests and shared benefits.



Thank you!

