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# The Project...

Project Executing Team: **FAO, UNESCO, IAH**

Core Funding: **GEF**

Co-financing: **FAO, UNESCO, IAH, WORLD BANK**

Steering Committee: **FAO, UNESCO, IAH, WORLD BANK, GEF STAP**

Dimension: **Global**

Duration: **2011-2015**

## Objectives:

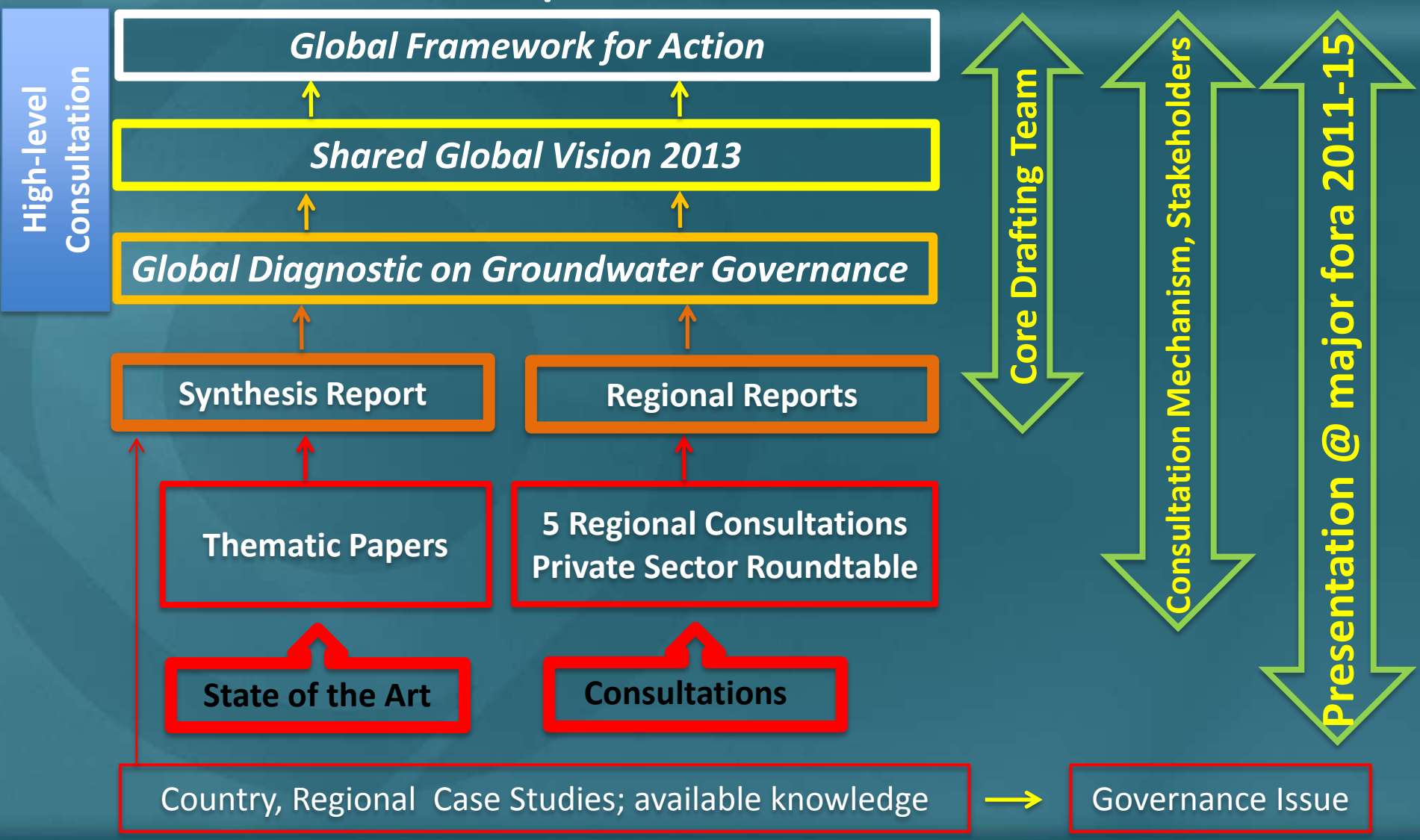
- **To bring to the global attention the urgent need for improved governance of groundwater resources**
- **To identify globally valid guiding principles for managing groundwater resources at country level**



**Groundwater Governance**  
A Global Framework for Action



# The Process...



# Outputs ...

## Global Diagnostic on GW Governance



Summary of global consultative process on aquifer characterization; groundwater use and future demand; management and governance; experiences, emerging issues and innovations

## Shared Global Vision 2013



*- Reaching globally shared goals of social & economic development and avoiding degradation of GW res. and aquifer systems*  
*- call for action for all who can make a difference*

## Framework of Action to achieve the vision



*Appropriate and effective actions by countries to achieve the Vision: basis for governance, effective institutions, essential linkages, redirection of finances*

# Main findings...

**Groundwater governance almost everywhere is insufficient, with the key deficiencies:**

- ✓ Low political commitment and inadequate leadership from government agencies
- ✓ Limited awareness of long-term gw risks
- ✓ Significant gaps in information about the resource
- ✓ Non-performing legal and regulatory systems on groundwater
- ✓ Insufficient stakeholder engagement in groundwater management
- ✓ Incentive structures not aligned with objectives of sustainable and efficient gw use
- ✓ Limited integration of science based groundwater understanding in related national policies





# Groundwater and Basin Governance...

**Linking groundwater to other water resources** [and other sectors] **is a requisite of governance.**

Linkage in policies and plans currently lacking

- ✓ WG needs to be managed 'conjunctively' with other sources of water
- ✓ GW and surface water supplement and feed each other; water allocation plans should be made accordingly
- Effective GW governance to extend down to local level where use is of most value
- Effective GW to be linked to aquifer basin-level, national-level and transboundary level, as appropriate
- Good GW governance recognizes inherent value of aquifer systems; aims at achieving sustainable provision of freshwater, preventing degradation of aquifer dependent ecosystems

# Groundwater and Basin Governance...

- **GW watersheds and surface water watersheds: conceptually similar, but boundaries do not always coincide**

GW moves underground, driven by: aquifer hydraulic properties; recharge and discharge; geology

Shallow aquifers generally follow surface water flow, deep aquifers do not always do

- **Other linkages of groundwater:**

**Sectors other than water:** urban WSS, waste-water management, land use and land management, energy provision, mining; others that make use of subsurface space

Sustainable GW management often lies in integration in wider policies – regulating use of hazardous substances, infrastructural planning (e.g. roads), trade arrangements



# Groundwater Governance...

Groundwater governance comprises the promotion of responsible collective action to ensure control, protection and socially-sustainable utilization of groundwater resources and aquifer systems for the benefit of humankind and dependent ecosystems.

This action is facilitated by an enabling framework and guiding principles.

## Groundwater governance components:

1. An effective and articulate legal and regulatory framework
2. accurate and widely-shared knowledge of the groundwater systems concerned, together with awareness of the sustainability challenges
3. an institutional framework characterized by leadership, sound organizations and sufficient capacity, permanent stakeholder engagement, and working mechanisms to coordinate between groundwater and other sectors
4. policies, plans, finances and incentive structures aligned with society's goals





# GW Governance guiding principles...

to guide how governance of groundwater translates into practice

## 1. GW not to be managed in isolation,

but conjunctively with other water sources to improve water security and assure ecosystem health  
often to play vital role of a strategic reserve to cover variations in surface-water availability  
can be both recharged by and discharged to surface-water bodies

## 2. co-management of quality and resources,

Harmony with land management, for recharge and protection from pollution and degradation

## 3. co-governance of all activities in the subsurface space,

waste disposal, tunnelling , hydrofracturing , etc– present not discussed in water management policy making

## 4. need for ‘vertical integration’

between national and local level in elaboration and implementation of GW management and protection plans

## 5. coordination with macro-policies of other sectors – such as agriculture, energy, health, urban and industrial development, environment. Often policy action in these sectors holds key to GW resource sustainability





**Thank You**



**Groundwater Governance**  
you are responsible to make it last

[www.groundwatergovernance.org](http://www.groundwatergovernance.org)