



# VIII CLGE Conference of the European Surveyor “BLUE SURVEYING”

## The Blue Surveyor: People, Planet and Partnerships

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FIG President Elect  
(2023-2026)



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# People, Planet and Partnerships: Water Resource Management

**71% water**

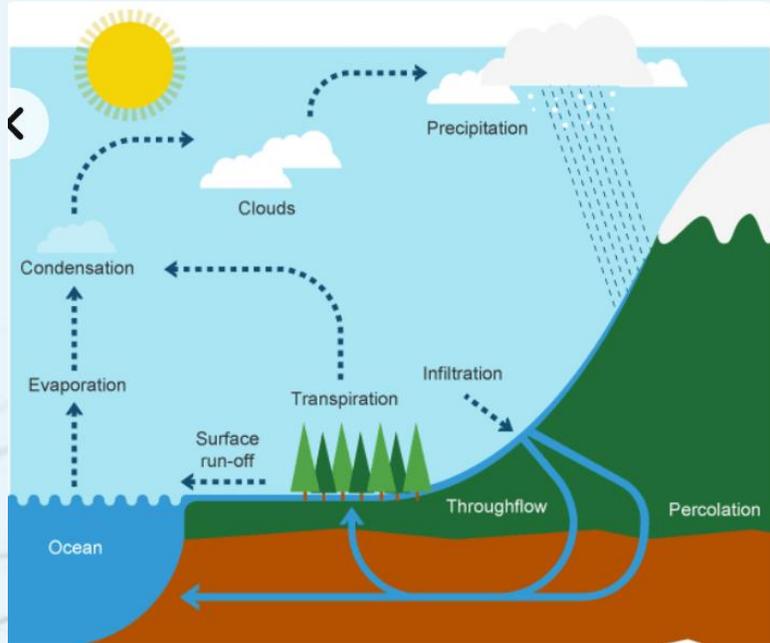


**29% land**

# Blue growth, Blue economy, Blue surveying

## Environmental Water Cycle

*It is precious and it is a threat*



Source: The water cycle, BBC Bitesize KS3/Geography

- The challenge with water resource is that it is both:
  - **Securing** adequate resource provision, and
  - **Mitigating the hazards** it presents when not well managed and/or climatic influences
- **Introducing:** Water governance & Water management
- my reflections **Blue surveyors role:**
  - People & Economy
  - Planet & Climate
  - Partnership & Capacity



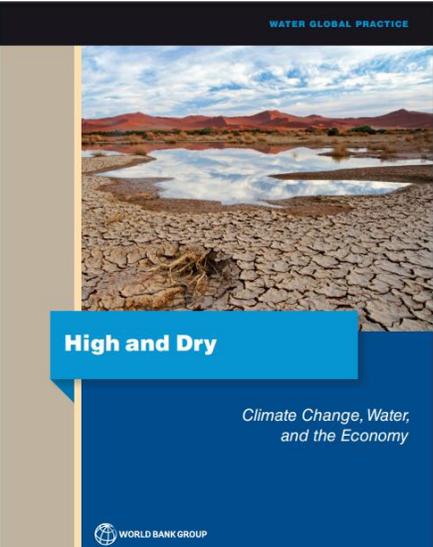
# Climate: Water is to adaptation, what Energy is to mitigation

(WB report High and Dry 2016)

- **Planet:** The impacts of climate change will be channeled primarily through the water cycle with consequences that could be large and uneven across the globe
- **People & Economic** growth is a “thirsty business”. Water is a vital factor of production, so
- Diminishing water supplies may slow growth/ economic prospects (Q6% GDP)
- Changes in water availability and variability can
  - Drought- induce migration and ignite civil conflict, food price spikes
  - Urbanisation – rising with higher demand

This:

- Introduces the goal of **Water Security** (WS) underpinned by improved stewardship
- Is why **Water Resource Management** (WRM) will be crucial in determining whether the world achieves SDG and aspirations for reducing poverty and ensuring shared prosperity. ....





# People & SDGs & Water security

Water is the common currency which links nearly every SDG....

- Water is **fundamental to life**, at the center of economic and social development,
- Water **drives economic growth**, it is vital to maintain peoples health and food production it **supports healthy ecosystems** and is central to the management of the environment
- **WRM** is tackled in SDG6.5 and SDG14, but other SDG and targets requires WRM for their achievement

But

- For a rapidly growing and urbanizing global population against a backdrop of **increasing climatic** and non climatic **uncertainties**, it is **not possible to predict and plan a single path to WS**.
- To strengthen **WS** we need to build capacity, adaptability and resilience for the future planning and management of **WRM\***
  - *This is where we come in.....*

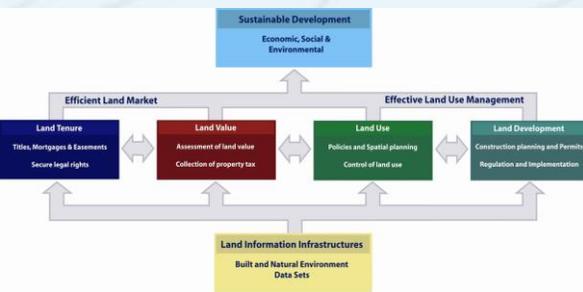




# .... Thinking for tomorrow, acting today

Environmental realities:

- **Achieving WS** in the context of growing water scarcity, greater unpredictability, degrading water quality and aquatic eco systems and more frequent droughts and floods,
  - **Requires an integrated evidence-based approach**
- Adaption to, and mitigation of climate change by their very nature **challenges professionals** in the fields of
- land use/ land management/ land reform/ land tenure/ land management and /land administration
- To incorporate climate change issues into their land policies, land policy instruments and tools,
- This is similarly applicable to survey professionals operating in the Water and Coastal zones.....

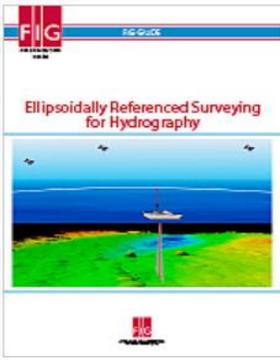




# The Blue surveyor – Our members



- Land & Hydrographic Surveying
- Mapping and positioning
- Geographic, Information Science
- Land law, Administration & Reform
- Dispute resolution & Expert witness and Mediation
- Cartography
- Project management
- Ocean bed & resource surveys
- Global & Local Navigation systems
- Engineering Survey
- Cadaster & Land Registration
- Photogrammetry & Remote sensing
- Private, regional & International boundaries Determination
- Research & Consultancy
- Monitoring Structures
- Land, Coastal & Marine Information management





# Capacity: how Geomatics fits into the issues

## Providing the Evidence base:

- Production of conventional maps is fundamental
- Satellite imagery/ monitoring/ temporal analysis
- Historical map data
- LIDAR
- Deformation surveys of coastal defence assets
- Use of Geographic information systems
- Marine cadaster etc
- Surveyors have the skills and technologies to develop effective solutions to the problems that surround global WS; but
  - **... is this enough to be a Blue Surveyor?**





# Skills, Competencies and Standards

**Members Partnership working, WRM is an important part of our knowledge.....**

- Skills cuts across all our members expertise and competencies, and
- Members knowledge is used across a wide range of disciplines including building survey, insurance assessments, land management, valuation and planning & development





# Partnerships: Strengthen the Blue Surveyor

- **Water Security** will be achieved when **water's productive potential is leveraged** and its **destructive potential is managed**
- **Water governance and management** is essential; but it also necessitates that governments and society understand that water is not an infinite resource and **to value it** accordingly.

So,

- Work with existing competencies and build our capacity in wider Water governance,
- We are a bridge to:
  - **Articulate** the issues to those outside of their usual sphere (policy makers, industry etc),
  - **Facilitate** public- political consensus, and
  - **Build partnerships** with fellow sector professionals

Above all promote,

- **Utilize** our stewardship skills in land, water, natural resource and the built environment





# People, Planet and Partnerships

The Blue future we want to shape:

- **Professional development:** Forums as highlighted by CLGE. Further sharing in FIG commissions
- **Capacity Building & institutional development** for our Members and national institutions
- **Global development:** partnership with strategic global partners, such as the world bank and UN sister agencies, etc.





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**Wishing you successful  
deliberations**

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## \*FYI: Water Resource Management



<https://www.worldbank.org/en/topic/water/overview>

- “Is the process of planning, developing and managing Water Resources, both water quantity and quality, across all water uses. It includes the institutions, infrastructure, incentives and information systems that support and guide WM”
- And “entails mapping water-related risks, including floods, drought and contamination
  - The complexities of relationships between water and households, economies, and ecosystems requires integrated water management that accounts for the synergies and tradeoffs of water’s great number uses and values





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