



## IGRAC support to the Dutch Water Sector



International Groundwater Resources Assessment Centre

## IGRAC SUPPORT TO THE DUTCH WATER SECTOR

### WATER SECURITY AND THE DUTCH WATER SECTOR

Access to safe water and climate resilience are two of the United Nation's Sustainable Development Goals (SDGs) which will trigger increased collaboration, innovative approaches and smart financing instruments in the water sector by development partners, knowledge providers, private sector and others. The inter-ministerial cooperation in the International Water Ambition (IWA, 2015-2021) of the Netherlands provides a novel policy framework while green climate funds and other financial instruments will support cooperation between implementing partners and generate co-financing from the private and public sector. Investment in water security is not only a social responsibility but also a business model to create global prosperity. The Netherlands Water Partnership (NWP) acts as a centre of information on water expertise, policy developments and market opportunities

### ROLE OF GROUNDWATER

Groundwater plays an important role in the global challenge to improve water security and access to safe water. The natural protection against pollution makes groundwater also a crucial resource for safe water access particularly in rural areas with scattered small scale water supply systems.

Although often not visible, groundwater is key element in achieving water security both for drought mitigation and flood control. Storage of water in the ground during periods of (excessive) rainfall and runoff for use during dry periods has proven to be a successful and cost effective measure to improve water security. These interventions are known as water buffering, 3R (Recharge Retention Reuse) or MAR (Managed Aquifer Recharge).

### IGRAC: FOCAL POINT FOR GROUNDWATER

Since the IWA recognizes the importance of groundwater for sustainable development and poverty alleviation in the context of climate change and water security, IGRAC is encouraged to – in close cooperation with NWP- serve as groundwater focal point internationally and support the Dutch groundwater sector in enhancing the integration of groundwater in their projects through:

- Stepping up sharing of IGRAC products and services with the water sector and providing input to the formulation of water programmes.
- Developing new products (with partners) geared to specific needs; examples are Coastal Aquifer Briefs, MAR in coastal areas, Potentiality maps for water buffering. These products are developed in cooperation with Acacia Water and possible other strategic partners.
- Sharing knowledge of IGRAC staff and provide advisory services to integrate groundwater in projects and programmes.
- Using the UNESCO/WMO and IGRAC People Network to support the sector in coalition forming.

| IGRAC SUPPORT SERVICES                   | Existing / new products | Knowledge & services | Liaison & coalitions | Program formulation |
|--|-------------------------|----------------------|----------------------|---------------------|
| <b>PROJECT SUPPORT</b>                   |                         |                      |                      |                     |
| Consultants                              | <b>X</b>                | <b>X</b>             |                      |                     |
| Knowledge institutes / Universities      | <b>X</b>                | <b>X</b>             | <b>X</b>             |                     |
| NGO's                                    | <b>X</b>                | <b>X</b>             | <b>X</b>             | <b>X</b>            |
| Water companies /water boards            | <b>X</b>                | <b>X</b>             | <b>X</b>             |                     |
| Financing institutions                   |                         |                      |                      | <b>X</b>            |
| <b>PROGRAMME SUPPORT</b>                 |                         |                      |                      |                     |
| Green climate initiatives                | <b>X</b>                | <b>X</b>             | <b>X</b>             |                     |
| Foundations (also of large companies)    | <b>X</b>                | <b>X</b>             |                      |                     |
| CSR / Sustainability programs            | <b>X</b>                | <b>X</b>             |                      | <b>X</b>            |
| Program development for funding agencies | <b>X</b>                |                      |                      | <b>X</b>            |



# PLANNING & ASSESSING THE WORLD'S GROUNDWATER

## ABOUT IGRAC

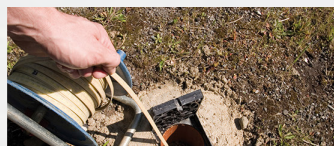
IGRAC (International Groundwater Resource Assessment Centre) facilitates and promotes international sharing of information and knowledge required for sustainable groundwater resources development and management worldwide. IGRAC is UNESCO Global Groundwater Centre, it also works under the auspices of WMO, it is a corporate IAH partner and it is financially supported by the Government of the Netherlands.

IGRAC is founded to support sustainable management of groundwater resources, promote the role of groundwater in integrated water resources planning and to elucidate the impact of groundwater on ecosystems. Since 2003, IGRAC provides an independent content and process support, focusing particularly on transboundary aquifer assessment and groundwater monitoring. Through its activities, IGRAC is expanding its interest to other groundwater-related topics, such as governance, training and climate change adaptation.



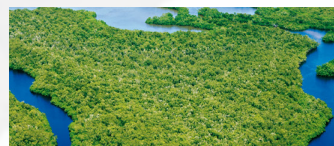
### GROUNDWATER ASSESSMENT

These activities encompass country-wide, transboundary and thematic assessments. Thematic assessments, dedicated to selected groundwater issues, are conducted on regional/global scale.



### GROUNDWATER MONITORING

Global Groundwater Monitoring Network (GGMN) programme is initiated by IGRAC to improve quality and accessibility of groundwater monitoring information and hence the knowledge on the state of groundwater resources.



### TRANSBOUNDARY GROUNDWATER

Political, institutional, socio-economic, cultural and other differences among countries make the assessment and management of internationally shared aquifers challenging. Transboundary aquifer assessment is the main IGRAC activity.



### GROUNDWATER GOVERNANCE

Groundwater Governance is an emerging issue with an emerging, global community of practice. IGRAC is highly active in this community through its project work and internal initiatives.



### TRAINING & CAPACITY BUILDING

By organizing regional workshops or developing training material, IGRAC strives to improve capacity for groundwater assessment and monitoring on a global scale.



### INF. & KNOWLEDGE MANAGEMENT

IGRAC facilitates and promotes worldwide exchange of groundwater knowledge and information to improve groundwater management.



### MANAGED AQUIFER RECHARGE

Managed Aquifer Recharge (MAR) has the potential to increase water availability by generating water supplies alternative sources.



### SMALL ISLAND DEVELOPING STATES

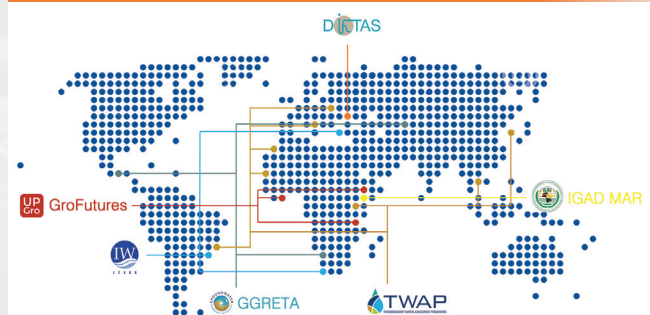
Small Island Developing States (SIDS) have limited options developing their freshwater resources and are vulnerable to climate change.

## GLOBAL GROUNDWATER INFORMATION SYSTEM

The Global Groundwater Information System (GGIS) is an interactive, web-based portal to groundwater-related information and knowledge. The main purpose of the system is to assist in collection and analysis of information on groundwater resources and its sharing among water experts, decision makers and general public.

The GGIS provides groundwater information per country and per transboundary aquifer. It leads the user from global overview of aggregated information towards information briefs, in-depth aquifer assessments and related information sources in the Meta-Information Module. Additionally, the GGIS contains the Global Groundwater Monitoring Network (GGMN) module that is a participative, web-based network of networks, set up to improve quality and accessibility of groundwater monitoring information.

## CURRENT PROJECTS





International Groundwater Resources Assessment Centre

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