

**Format for Biennial Reports by UNESCO's Water-related Centres on activities related to the IHP in the period (June 2012- May 2014)**

**1. Basic information on the centre**

Name of the Centre		IGRAC, International Groundwater Resources Assessment Centre
Name of Director		Neno Kukurić
Name and title of contact person (for cooperation)		Neno Kukurić
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Address		Westvest 7 2611AX Delft, The Netherlands
Website		<a href="http://www.un-igrac.org">www.un-igrac.org</a>
Location of centre		city/town Delft country The Netherlands
Geographic orientation *		X global regional
Region(s) (for regional centres)		
Year of establishment		2011 as a UNESCO centre (IGRAC exists since 2003)
Year of renewal assessment		
Signature date of most recent Agreement		15 November 2011
<b>Themes Of activities during reporting period</b>	Focal Areas ♦	<p><b>x groundwater (GW)</b></p> <input type="checkbox"/> urban water management <input type="checkbox"/> rural water management <input type="checkbox"/> arid / semi-arid zones <input type="checkbox"/> humid tropics <input type="checkbox"/> cryosphere (snow, ice, glaciers) <input type="checkbox"/> water related disasters (drought/floods) <input type="checkbox"/> Erosion/sedimentation, and landslides <input type="checkbox"/> ecohydrology/ecosystems <input checked="" type="checkbox"/> water law and policy <input checked="" type="checkbox"/> social/cultural/gender dimension of water <p><b>X transboundary river basins/ aquifers</b></p> <input type="checkbox"/> mathematical modelling <input type="checkbox"/> hydroinformatics <input type="checkbox"/> remote sensing/GIS <input type="checkbox"/> IWRM <input type="checkbox"/> Watershed processes/management <input checked="" type="checkbox"/> global and change and impact assessment <input type="checkbox"/> mathematical modelling <input type="checkbox"/> water education <input type="checkbox"/> water quality <input type="checkbox"/> nano-technology <input type="checkbox"/> waste water management/re-use <input type="checkbox"/> water/energy/food nexus <input type="checkbox"/> water systems and infrastructure <input type="checkbox"/> other: <b>GW monitoring and assessment</b>
	Scope of Activities ♦	<input type="checkbox"/> vocational training <input type="checkbox"/> postgraduate education <input type="checkbox"/> continuing education <input checked="" type="checkbox"/> public outreach <input type="checkbox"/> research <input checked="" type="checkbox"/> institutional capacity-building <input checked="" type="checkbox"/> advising/ consulting <input checked="" type="checkbox"/> software development <input checked="" type="checkbox"/> data-sets/data-bases development <input type="checkbox"/> other: <b>GW monitoring and assessment</b>

\* check on appropriate box  
♦ check all that apply

Support bodies <sup>1</sup>	Government of the Netherlands
Hosting organization <sup>2</sup>	IGRAC is an independent foundation and has no hosting organisation
Sources of financial support <sup>3</sup>	Grant from the Government of the Netherlands and projects carried out in cooperation with UNESCO-IHP
Existing networks and cooperation <sup>4</sup>	IAH, GTN-H, GEO, GWP, ..
Governance	X director and governing board (and foundation board) <input type="checkbox"/> other: (please specify) _____ Link to election of board members to the IHP Intergovernmental Council (IGC) and hosting country IHP National Committee via the Governing Board and the Director of the Centre Frequency of meetings: once every 1 year x Existence of UNESCO presence at meetings
Institutional affiliation of director (!?)	Director of IGRAC
Number of staff and types of staff	total number of staff (full-time, or equivalent) : six FTE (+ short contracts) number of staff who are water experts: six number of visiting scientists and postgraduate students: interns
Annual turnover budget in USD	800.000-1.000.000

## 2. Activities undertaken in the framework of IHP in the period June 2012 – May 2014

IGRAC was established as a UNESCO Category 2 centre in October 2011 during the 7<sup>th</sup> UNESCO-IHP phase (IHP VII) running from 2008 to 2013. Although a latecomer to the programme, IGRAC activities could easily match some of the IHP VII focal areas, especially within the themes:

- Adapting to the impacts of global changes on river basins and aquifer systems: for example through the GRAPHIC<sup>5</sup> programme, and
- Strengthening water governance for sustainability: for example through the GEF Groundwater Governance project.

The main contribution of IGRAC was through the programme on Internationally Shared Aquifer Resources Management (ISARM). The ISARM programme ([www.isarm.org](http://www.isarm.org)) is about transboundary aquifers (TBA) which at present is the main topic of IGRAC activities. The vast majority of IGRAC TBA activities is conducted under the umbrella of the IGRAC programme (e.g. development of the Transboundary Aquifers of the World map) or is related to the ISARM (e.g. GEF projects like the Dinaric Karst Aquifer System Project (DIKTAS) for 4 countries in the Balkan or the Transboundary Waters Assessment Programme (TWAP) which comprises a world-wide assessment of transboundary aquifers). Total IGRAC contribution to the projects conducted through the UNESCO-IHP in 2013 was about 500.000\$.

<sup>1</sup> please specify bodies that cover the operational costs of the centre, and other essential costs such as salaries and utility bills, and that provide institutional support to ensure centre's sustainability

<sup>2</sup> if different from support bodies

<sup>3</sup> please specify sources of main budgetary and extrabudgetary funds to implement projects

<sup>4</sup> please write international networks, consortiums or projects that the centre is part of, or any other close links that the centre has with international organizations or programmes, which are not already mentioned above

<sup>5</sup> GRAPHIC: Groundwater Resources Assessment under the Pressures of Humanity and Climate Change

IGRAC also contributed to another Associated Programme called WHYMAP (World-wide Hydrogeological Mapping and Assessment Programme); last year, WHYMAP produced the map 'River and Groundwater Basins of the World'.

There is a strong relationship between availability of groundwater data & information and effectiveness of many IHP-VII activities. In accordance to its mission, IGRAC took the initiative to strengthen the cooperation with National IHP committees on the topic of data & information availability. Supported by the Delegation of the Netherlands and the IHP Secretariat, this initiative resulted in Resolution XX-2 of the Intergovernmental Council of IHP (June 2012). The Resolution calls for support of Global Groundwater Information System (GGIS) which is developed and maintained by IGRAC. The GGIS is continuously under development (for more info: IGRAC report 2013 and IGRAC Work Plan 2014.) in the last two years, especially implementation of the Global Groundwater Monitoring Network (GGMN) programme progressed rapidly.

IGRAC regularly provides contributions to World Water Assessment Programme (WWAP). The focus of the 5<sup>th</sup> edition of the World Water Development Report was water and energy and IGRAC made several contributions to the report including sections on hydraulic fracturing (fracking), energy used for purification of groundwater, and energy used for extraction and transport of groundwater. IGRAC also developed an in-depth case study of hydropower in karst in collaboration with leading regional experts.

In 2012, IGRAC took an active role in the preparation of the 8<sup>th</sup> phase of the IHP (2014-2021) called 'Water security: Responses to local and global challenges'. This was done in good cooperation with the National UNESCO IHP Secretariat of the Netherlands and the IHP Secretariat in Paris. In 2013, IGRAC was involved in several preparation-related activities, including the final one, a UNESCO Joint Strategic and High-level Meeting on Water Security and Cooperation, held in Nairobi in September 2013. In this important meeting, a session on 'Theme 2 of IHP-VIII: Groundwater in a changing environment' was moderated by IGRAC. Theme 2 consists of five focal areas, namely:

- Enhancing sustainable groundwater resources management,
- Addressing strategies for management of aquifers recharge,
- Adapting to the impacts of climate change on aquifer systems,
- Promoting groundwater quality protection, and
- Promoting management of transboundary aquifers.

Due to early and continued involvement in the IHP-VIII preparation process, IGRAC was able to encourage incorporation of all IGRAC's main activities into the programme. Hence, groundwater governance, internationally shared aquifers, groundwater monitoring and managing aquifer recharge are some of the core activities of the five focal areas in theme 2 on groundwater. Also, a topic of Groundwater in River Basin management, advocated by IGRAC and broadly supported by national IHP representatives, is now fully addressed in the programme. All the activities mentioned above are already on-going but their scope (i.e. contribution to the UNESCO IHP) will certainly increase in the coming eight years (duration of this phase is eight years).

In 2013, IGRAC started an initiative to increase cooperation with other UNESCO water centres, particularly in the field of water cooperation, water governance and water diplomacy. A joint meeting of the IGRAC Governing Board and the representatives of several UNESCO water centres was organised in December 2013 in Delft.

### **3. Annexes**

- 3.1 IGRAC Report 2013
- 3.2 IGRAC Work Plan 2014
- 3.3 IGRAC Evaluation Report (Biannual)