

**Format for Biennial Reports by UNESCO's Water-related Centres on activities related to the IHP in the period (June 2014 – May 2016)**

**1. Basic information on the centre**

Name of the Centre		<b>Centro Regional para la Gestión del Agua Subterránea en América Latina y el Caribe CeReGAS (Regional Centre for Groundwater Management)</b>
Name of Director		<b>Jorge Rucks</b>
Name and title of contact person (for cooperation)		<b>Alberto Manganelli (Technical coordinator)</b>
E-mail		<b>ceregas@ceregas.org</b>
Address		<b>Rondeau 1665 Piso 1</b>
Website		<b>www.ceregas.org</b>
Location of centre		city/town <b>Montevideo</b> country <b>Uruguay</b>
Geographic orientation *		<input type="checkbox"/> global <input checked="" type="checkbox"/> <b>regional</b>
Region(s) (for regional centres)		<b>Latin America and the Caribbean</b>
Year of establishment		<b>2014</b>
Year of renewal assessment		<b>2020</b>
Signature date of most recent Agreement		<b>March 20, 2014</b>
<b>Themes of activities during reporting period</b>	Focal Areas ·	<input checked="" type="checkbox"/> <b>groundwater</b> <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 type="checkbox"/> water law and policy <input type="checkbox"/> social/cultural/gender dimension of water <input checked="" type="checkbox"/> <b>transboundary river basins/ aquifers</b> <input type="checkbox"/> mathematical modelling <input type="checkbox"/> hydroinformatics <input type="checkbox"/> remote sensing/GIS <input checked="" type="checkbox"/> <b>IWRM</b> <input checked="" type="checkbox"/> <b>Watershed processes/management</b> <input checked="" type="checkbox"/> <b>global and change and impact assessment</b> <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: (please specify) _____
	Scope of Activities ·	<input type="checkbox"/> vocational training <input type="checkbox"/> postgraduate education <input checked="" type="checkbox"/> <b>continuing education</b> <input checked="" type="checkbox"/> <b>public outreach</b> <input checked="" type="checkbox"/> <b>research</b> <input checked="" type="checkbox"/> <b>institutional capacity-building</b> <input type="checkbox"/> advising/ consulting <input type="checkbox"/> software development <input type="checkbox"/> data-sets/data-bases development <input type="checkbox"/> other: (please specify) _____

\* check on appropriate box  
 · check all that apply

Support bodies <sup>1</sup>	<b>Ministry of Environment</b>
Hosting organization <sup>2</sup>	<b>Ministry of Environment</b>
Sources of financial support <sup>3</sup>	<b>Public budget - government</b>
Existing networks and cooperation <sup>4</sup>	<b>UNESCO water family, Strathclyde University</b>
Governance	<input checked="" type="checkbox"/> <b>director and governing board</b> <input type="checkbox"/> other: (please specify) _____ Link to election of board members to the IHP Intergovernmental Council (IGC) and hosting country IHP National Committee _____ Frequency of meetings: once every <u>  1  </u> year(s) <input checked="" type="checkbox"/> <b>Existence of UNESCO presence at meetings</b>
Institutional affiliation of director	Vice Minister of Environment
Number of staff and types of staff	total number of staff (full-time, or equivalent) : <u>  3  </u> number of staff who are water experts: <u>  2  </u> number of visiting scientists and postgraduate students: <u>  1  </u>
Annual turnover budget in USD	

## 2. Activities undertaken in the framework of IHP in the period June 2014 – May 2016

2.1 Educational activities (i.e., those with accreditation) that directly contributed to the IHP-VIII (Appendix 1) and WWAP  
*Please include here those activities which led to accreditation of degrees, or those held in formal school settings.*

2.2 Research activities that directly contributed to the IHP-VIII activities  
*Please include research/applied projects outputs such as publications that directly contributed to the IHP-VIII and WWAP objectives*

***CeReGAS apoya y participa en el proyecto INIA FPTA 307 "Gestión ambiental del sistema acuífero Raigón (SAR)" con la Facultad de Ingeniería e INIA. El cual está en curso y con finalización en diciembre de 2016.***

2.3 Training activities that directly contributed to the IHP-VIII and WWAP objectives

***En diciembre de 2014 se realizó el Taller Diseño Óptimo de Redes de Monitoreo del Agua Subterránea organizado por la Facultad de Ingeniería de la Universidad de la República junto con la UNAM-México y el auspicio del CeReGAS.***

***En el área de capacitación la principal actividad llevada a cabo durante el año 2015 fue la co-organización junto con el Instituto de Mecánica de los Fluidos e Ingeniería Ambiental de la Facultad***

<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

**de Ingeniería de la Universidad de la República, del curso "Sondeos geofísicos aplicados a la exploración de aguas subterráneas" que se llevó a cabo del 13-16 octubre 2015, y que fuera dictado por el Dr. Fernando Corbo, investigador de la UNAM-México.**

**Desde el mes de julio de 2015 desarrolló tareas en el Centro, en forma compartida con UNESCO, la Sra. Alexandra Verbinschi, pasante de la universidad de Lund (Suecia), quien desarrolló su proyecto de tesis titulado "Transboundary sustainable development and hot springs ecotourism in the Guarani Aquifer region".**

**En febrero 2016 se organizó un Workshop sobre Gobernanza de Aguas Subterráneas, como resultado de una postulación realizada al British Council Researcher Links. Dicho evento fue co-organizado por la Universidad de Strathclyde, UNESCO-PHI LAC y el Centro Regional para la Gestión de Aguas Subterráneas en América Latina y el Caribe. En este taller participaron investigadores del Reino Unido y Uruguay. El taller se llevó a cabo en Salto, Uruguay del 22 al 26 de febrero 2016 y fue dirigido por académicos y especialistas de ambos países.**

### **3. Collaboration and linkages**

- 3.1 Participation in major international networks, programmes, partnerships with other UN or other International Agencies, media and professional bodies
- 3.2 Participation in meetings related to the IHP and UNESCO (e.g. the UNESCO General Conference, the UNESCO Executive Board, the IHP Intergovernmental Council and/or other meetings organized by IHP)

**El CeReGAS fue presentado en la XI Reunión de Comités Nacionales y Puntos Focales del PHI llevada a cabo en Santiago de Chile, del 26 al 28 de octubre de 2015**

**El CeReGAS participó por primera vez en la reunión de Cátedras y Centros UNESCO PHI-LAC vinculados al agua y en la Reunión de Coordinadores del PHI-LAC realizada en Santiago de Chile, del 29 al 30 de octubre de 2015.**

**El director del CeReGAS, Arq. Jorge Rucks participó de la Conferencia Internacional "El Agua, Megaciudades y Cambios Globales", organizada por UNESCO en París, del 1 al 4 de diciembre de 2015 coincidiendo con la 21ª Conferencia de las Partes de la CMNUCC (COP21).**

- 3.3 Collaboration and networking with other UNESCO category 1 or 2 institutes/centres
  - 3.3.1 cross-appointment of directors of the category 1 or 2 institutes or centres on the governing board
  - 3.3.2 exchange of information on activities such as training/educational materials, and funding opportunities
  - 3.3.3 exchange of staff, most notably professionals and students
  - 3.3.4 implementation of joint activities, such as workshops, conferences, training programmes, joint projects, field visits, software and data sharing, knowledge exchange and publications
- 3.4 Relationships with the UNESCO field and regional office whose jurisdiction covers the country of location

- 3.5 Relationship with the UNESCO National Commission and the IHP National Committee in the country of location and with other organizations of other countries
- 3.6 Relationship with other UNESCO-related networks, such as UNESCO Clubs, ASPnet, and UNESCO chairs

#### **4. Communication**

- 4.1 Communication and knowledge dissemination activities undertaken in the framework of IHP
- 4.2 Policy documents and advice

#### **5. Update on Centre Operations**

- 5.1 Membership of the Board of Governors between designated period

##### **CONSEJO DE ADMINISTRACIÓN:**

***Con el objetivo de la conformación del Consejo de Administración del CeReGAS, se llevó a cabo entre los días 5 y 6 de octubre en la ciudad de Montevideo, una reunión de la que participaron: un representante del gobierno uruguayo, un representante de UNESCO y representantes de los siguientes países: Argentina, Brasil, Jamaica, México y Paraguay.***

***Como resultado de esta reunión se solicitó a los países la presentación de las notas formales de adhesión, para su integración plena al Consejo de Administración.***

##### **Integrantes:**

***Representante de gobierno de Uruguay***

***Representante de Director General de UNESCO***

***Representantes de México – Jamaica – Paraguay***

- ***Resta la formalización por nota expresa de Argentina y Brasil***
- ***A la fecha se ha recibido expresiones de interés de Chile y Venezuela***

- 5.2 Key decisions made (attach minutes of meetings)

#### **6. Evidence of the Centre's Impacts**

- 6.1 Science Impacts (Major contributions to the science, technology, education, and regional and/or international cooperation in the field of water)
- 6.2 Knowledge Transfer Impacts (Major achievements in the dissemination of knowledge and technology transfer)
- 6.3 Policy Impacts (advice sought by government and other bodies and evidence of inputs into policy arena)

***En el período indicado CeReGAS asesoró a la DINAGUA en la evaluación de los trabajos llevados a cabo por el Departamento del Agua de la Regional Norte de la Universidad de la República a solicitud de aquella, para la actualización y mejora de los modelos matemáticos de flujo de aguas subterráneas del acuífero Guaraní en las zonas de Salto y Rivera (Uruguay) que originalmente habían sido elaborados en el marco del Proyecto para la Protección Ambiental y Desarrollo Sostenible del Sistema Acuífero Guaraní.***

***Durante el mes de diciembre de 2015, el CeReGAS participó junto a la DINAGUA, en la elaboración del documento de propuesta para el Monitoreo del Sistema Acuífero Guaraní en Uruguay el cual fue puesto a consideración de las autoridades en el primer trimestre de 2016. Actualmente se está trabajando en la implementación del mismo.***

**7. Future activities that will contribute directly to IHP and/or to WWAP**

7.1 Operational Plan (attach if available)

***Plan de actividades 2016 adjunto.***

7.2 Strategic Plan linked with IHP-VIII (Appendix 1). Focal areas within IHP-VIII the centre plans to contribute to and specific actions the centre will undertake to align its activities with the strategic plan for IHP-VIII

**8. Annexes**

8.1 List of publications released by the centre (there can be overlap with those listed in 2.3 above)

- ***Groundwater Governance: Drawing Connections between Science, Knowledge and Policy-Making.***  
***Disponible en:***  
<https://www.strath.ac.uk/scelg/workingpapers/scelgworkingpaper42016/>

8.2 List of training courses conducted (there can be overlap with those listed in 2.1 above)

- ***Diciembre 2014: Taller Diseño Óptimo de Redes de Monitoreo del Agua Subterránea***
- ***Octubre 2015: Sondeos geofísicos aplicados a la exploración de aguas subterráneas***
- ***Febrero 2016: Groundwater Governance: Drawing Connections between Science, Knowledge and Policy-Making***

## **Appendix 1**

### **Overview of the Core Programme Themes of the Eighth Phase of the IHP (2014-2021)**

#### **WATER SECURITY: ADDRESSING LOCAL, REGIONAL, AND GLOBAL CHALLENGES**

##### **THEME 1: WATER-RELATED DISASTERS AND HYDROLOGICAL CHANGE**

- Focal area 1.1 - Risk management as adaptation to global changes
- Focal area 1.2 - Understanding coupled human and natural processes
- Focal area 1.3 - Benefiting from global and local Earth observation systems
- Focal area 1.4 - Addressing uncertainty and improving its communication
- Focal area 1.5 - Improve scientific basis for hydrology and water sciences for preparation and response to extreme hydrological events

##### **THEME 2: GROUNDWATER IN A CHANGING ENVIRONMENT**

- Focal area 2.1 - Enhancing sustainable groundwater resources management
- Focal area 2.2 - Addressing strategies for management of aquifers recharge
- Focal area 2.3 - Adapting to the impacts of climate change on aquifer systems
- Focal area 2.4 - Promoting groundwater quality protection
- Focal area 2.5 - Promoting management of transboundary aquifers

##### **THEME 3: ADDRESSING WATER SCARCITY AND QUALITY**

- Focal area 3.1 - Improving governance, planning, management, allocation, and efficient use of water resources
- Focal area 3.2 - Dealing with present water scarcity and developing foresight to prevent undesirable trends
- Focal area 3.3 - Promoting tools for stakeholders involvement and awareness and conflict resolution
- Focal area 3.4 - Addressing water quality and pollution issues within an IWRM framework - improving legal, policy, institutional, and human capacity
- Focal area 3.5 - Promoting innovative tools for safety of water supplies and controlling pollution

##### **THEME 4: WATER AND HUMAN SETTLEMENTS OF THE FUTURE**

- Focal area 4.1 - Game changing approaches and technologies
- Focal area 4.2 - System wide changes for integrated management approaches
- Focal area 4.3 - Institution and leadership for beneficiation and integration
- Focal area 4.4 - Opportunities in emerging cities in developing countries
- Focal area 4.5 - Integrated development in rural human settlement

##### **THEME 5: ECOHYDROLOGY, ENGINEERING HARMONY FOR A SUSTAINABLE WORLD**

- Focal area 5.1 - Hydrological dimension of a catchment— identification of potential threats and opportunities for a sustainable development
- Focal area 5.2 - Shaping of the catchment ecological structure for ecosystem potential enhancement — biological productivity and biodiversity
- Focal area 5.3 - Ecohydrology system solution and ecological engineering for the enhancement of water and ecosystem resilience and ecosystem services
- Focal area 5.4 - Urban Ecohydrology – storm water purification and retention in the city landscape, potential for improvement of health and quality of life
- Focal area 5.5 - Ecohydrological regulation for sustaining and restoring continental to coastal connectivity and ecosystem functioning

##### **THEME 6: WATER EDUCATION, KEY FOR WATER SECURITY**

- Focal area 6.1 - Enhancing tertiary water education and professional capabilities in the water sector
- Focal area 6.2 - Addressing vocational education and training of water technicians
- Focal area 6.3 - Water education for children and youth
- Focal area 6.4 - Promoting awareness of water issues through informal water education
- Focal area 6.5 - Education for transboundary water cooperation and governance