

## GROUNDWATER GOVERNANCE: CHALLENGES AND PATHS

**ACHIEVEMENT:** from the 24<sup>th</sup> to the 27<sup>th</sup> of October 2022

Workload: 24 hours/class.

**DUE TO THE COVID-19 PANDEMIA, THE COURSE WILL BE HELD IN THE ONLINE "LIVE" FORMAT.**

**REGISTRATION:** from **August 5 to October 2, 2022**, through the form that will be available on the ANA/Brazil Training Portal (<http://capacitacao.ana.gov.br/>)

**NUMBER OF VACANCIES:** 40

**CONFIRMATION OF PARTICIPATION OF CANDIDATES SELECTED TO THE COURSE IN THE "LIVE" ONLINE FORMAT:** until **October 9, 2022**

**PUBLICATION OF THE LIST OF SELECTED CANDIDATES:** October 17, 2022

**ORGANIZING INSTITUTIONS:**

ANA - National Water and Sanitation Agency (Brazil)

UNESCO – United Nations Educational, Scientific and Cultural Organization

ABC/MRE – Brazilian Cooperation Agency/Ministry of Foreign Affairs

**COURSE COORDINATOR:**

To be defined by CCAPS/SAS/ANA.

**OBJECTIVE**

Introduce groundwater to society, identifying its importance and demonstrating how to promote its governance and integrated groundwater management.

**LANGUAGES**

The course will be given in **Portuguese** with simultaneous translation into **Spanish** and **English**.

**TARGET AUDIENCE:**

The course is aimed at technicians and professionals from water resources management public agencies – in particular groundwater – and the environment in Brazil, Latin American, Caribbean and Portuguese-speaking countries responsible for implementing public policies on groundwater resources and of management instruments.

**METHODOLOGY**

The course, in the "live" online modality, will be developed in a workload of 24 h/class.

Classes will cover theoretical issues and case studies on groundwater governance and management, according to the following schedule:

DATE	BRASILIA TIME (UTC-3)	CONTENTS	INSTRUTOR
10/24/2022	9:00 am – 9:15 am	Reception and welcome to participants. Course and faculty presentation	ANA, ABC/MRE and UNESCO representatives
	9:15 am – 1:00 pm with 2 scheduled intervals of 15' each, between 10:30 am and 10:45 am and between 12:00 pm and 12:15 pm	<p><b>1. GROUNDWATER GOVERNANCE AND GROUNDWATER MANAGEMENT</b></p> <p>1.1 Governance, Governability and Groundwater Management: aligning the concepts. 1.1.2 The Concept of Integrated Water Resources Management (IWRM) and its role in the governance of groundwater resources. 1.2 Federal Constitution of Brazil of 1988 and the groundwater domain. 1.3 The National Water Resources Policy: a new way of managing water. 1.4 The National Water Resources System and the protection of groundwater</p>	To be defined
	1:00 pm – 2:30 pm	lunch break	
	2:30 pm – 5:30 pm with 1 expected interval of 20' between 15:40 pm and 16:00 pm	<p>1.5 States and groundwater management 1.6 Municipalities: Their role in aquifer management 1.7 The responsibility of groundwater users in the management and legal implications of irregular use 1.8 The need for social participation of groundwater. 1.9 Groundwater and mineral waters in Brazil 1.10 Cooperation between the different administrative entities and the focus on local management of groundwater.</p> <p>Complementary supervised activities and debates</p>	To be defined
10/25/2022	9:00 am – 1:00 pm with 2 scheduled intervals of 15' each, between 10:30 am and 10:45 am and between 12:00 pm and 12:15 pm	<p><b>2. GROUNDWATER IN THE HYDROSOCIAL CYCLE</b></p> <p>2.1 The hydrosocial cycle and groundwater 2.2 What are aquifers and how do they work 2.3 The interactions of groundwater with surface, coastal and meteoric waters 2.4 Groundwater in Brazil 2.7 Threats to Brazilian underground water resources 2.7.1 Overexploitation of aquifers 2.7.2 Contamination of soil and groundwater 2.7.3 Reduction of aquifer recharge due to changes in land use and occupation</p>	To be defined
	1:00 pm – 2:30 pm	lunch break	
	2:30 pm – 5:30 pm with 1 expected interval of 20' between 15:40 pm and 16:00 pm	<p>Complementary supervised activities and debates (including reading texts, video classes and videos related to the topics covered in the morning)</p>	To be defined

DATE	BRASILIA TIME (UTC-3)	CONTENTS	INSTRUTOR
10/26/2022	9:00 am – 1:00 pm with 2 scheduled intervals of 15' each, between 10:30 and 10:45 am and between 12:00 pm and 12:15 pm	<b>3. GROUNDWATER MANAGEMENT: FROM THEORY TO PRACTICE</b> 3.1 Water Resource Plans 3.1.1 National Water Resources Plan 3.1.2 The State Water Resources Plans (SWRP) 3.1.3 Water resource plans for hydrographic basins and the insertion of groundwater 3.1.2 Specific management instruments for groundwater 3.2 Framework of groundwater bodies according to predominant uses 3.3 Granting the right to use groundwater resources 3.4 Charging for the use of water resources and groundwater management 3.5 Information Systems and groundwater 3.7 Instruments of other policies that contribute to water governance	To be defined
	1:00 pm – 2:30 pm	lunch break	
	2:30 pm – 15:30 pm with 1 expected interval of 20' between 15:40 pm and 16:00 pm	Complementary supervised activities and debates  (Including reading texts, video classes and videos related to the topics covered in the morning)	To be defined
10/27/2022	9:00 am – 12:00 pm with 1 scheduled interval of 15' between 10:30 am and 10:45 am	<b>4. THE GOVERNANCE OF GROUNDWATER AND THE STRENGTHENING OF INTEGRATED MANAGEMENT OF WATER RESOURCES</b>  4.2. Strategies to protect quantity and overexploitation of aquifers  4.3. Strategies for protecting the quality of aquifers 4.3.1 Management of contaminated areas and groundwater  4.4. Groundwater governance as a means of ensuring socioeconomic development  4.1. Establishing a groundwater governance implementation agenda   <b>COURSE CLOSING</b>	

#### LOGISTICAL ASPECTS:

- The course is free and will be carried out, according to the timetable/programming available above, in the online modality (via the internet). Thus, to participate, **the selected candidate must have a computer** (laptop or notebook) or similar device **with good quality internet access; have a camera and microphone**. The lack of such equipment, which will not be provided by the organizing institutions, makes participation in the course unfeasible.
- The platform for participation (Zoom or similar) will be provided by the organizing institutions.