

AFRICAN MINISTERS' COUNCIL ON WATER

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AMCOW PAN AFRICAN GROUNDWATER PROGRAMME (APAGROP) BACKGROUND PAPER

Table of Contents

Background	01
Rationale	02
Objectives	03
Expected Outcomes	04
Progress to Date	05
Next steps/ Upcoming Activities	06

AMCOW PAN-AFRICAN GROUNDWATER PROGRAM (APAGroP)

1.1 Background

In furtherance of the AMCOW mission regarding policy direction and advocacy in the provision, use and management of water resources for sustainable social and economic development and maintenance of African ecosystems, AMCOW established last year a Groundwater Desk and launched a flagship pan-African groundwater initiative termed APAGroP (AMCOW Pan-African Groundwater Programme) to improve groundwater management for better lives and livelihoods of the African people. APAGroP is based on the Strategic Priority 1 (SP1) of the AMCOW Strategy 2018-2030 and the Strategic Operational Plan 2020-2024, which envisage the establishment and functioning of a Pan-African Groundwater Program.

1.2 Rationale

The overall focus of the Pan-African Groundwater Program (APAGroP) is to enhance the development of knowledge base for science-led decision making and sustainable development and management of groundwater resources, thereby improving the Policy and Practice of Groundwater in Africa. The overall vision is to ensure that through improved groundwater policy and practice, groundwater is used sustainably and equitably to increase water and food security, resilience, and support improved lives and livelihoods in Africa.

1.3 Objectives

The overall intent is to enhance the development of knowledge base for science-led decision making and sustainable development and management of groundwater resources in Africa. Specific goals of APAGroP are to:

- promote sustainable management and utilization of groundwater resources for water security and resilience,
- promote appropriate technologies and practice in groundwater development and management and
- improve the policy and institutional and legal frameworks, and
- develop support tools and strengthen capacity in Groundwater in Africa for better lives and livelihoods.

1.4 Expected Outcomes

In line with the mandate of AMCOW to set up an African Groundwater knowledge sharing and policy coordination desk at AMCOW Secretariat for the promotion of increased understanding and use of groundwater resources in addressing water security in Africa, intended outcomes of the program are:

1. Increased awareness and political commitment to groundwater, with better representation of groundwater in the continent's major water-focused programs
2. Continental cooperation, knowledge sharing and collective action between Member States and partners to establish a pan-African community of best practice.
3. Efficient linkages between research, practitioners and policymakers to promote evidence-based decision making.
4. Strengthened institutional and individual capacity to improve groundwater use, management and governance.

1.5 Progress to date

After the formal roll-out of the APAGroP and engagement of the Groundwater Desk Officer last year, the groundwater desk has been actively involved in accelerating the implementation and coordination of the APAGroP activities. In collaboration with stakeholders, development and financial partners in the groundwater sector, the AMCOW groundwater Desk had strived to ensure that APAGroP delivers to the Member States along the three thematic pillars and cross-cutting leverage on science and practice.

Within the frame work of the above thematic focus, the GW Desk, worked with other GW-stakeholders (i.e. IWMI, UNESCO, BGS, BGR, IGRAC among others) coordinate all groundwater activities at the AMCOW Secretariat and to shape knowledge, policies, capacity building and actions on groundwater development and management on the African Continent. A number of key specific progress are outlined below:

1.5.1 Groundwater Stakeholders' Mapping Questionnaires developed:

Based on the recognition of institutional and human capacities as key to sustainable groundwater resources development and management. AMCOW and APAGroP's Action Group on Capacity Development and Training developed a series of questionnaire (forms) for use on a Groundwater Stakeholder Mapping exercise at local, national, and regional levels. The objectives of the mapping assessment include:

1. Map out all stakeholders/institutions and define stakeholders' functions
2. Identify key gaps and issues: Preparation of data collection tools and request support from MS for data collection
3. Conduct gap analysis and stakeholder mapping for capacity building programs on Groundwater.

4. Consult policy makers to identify priorities in GW resource management and raise awareness on gaps and issues at Pan-African level.

AMCOW Groundwater Desk will deploy the questionnaire by the end of 2021 early 2022 to map and analyze the institutional and human capacity gaps of respective member countries. The intervention will produce a form of compendium or monograph of African Groundwater expertise across the Member States. In addition, it will also serve as a precursor to the development of appropriate capacity building programs in groundwater development and management.

1.5.2 Building an online course on Groundwater Management in Africa:

AMCOW recognises that developing an online course to strengthen the capacity of African professionals with the requisite Groundwater knowledge and skill set can help improve their ability to manage and preserve national and transboundary water resources. For this online course on Groundwater Management in Africa, AMCOW and the APAGroP working group on Capacity Building & Training have developed a concept note/proposal to formulate an Integrated Water Resource Management (IWRM) course. The course will deliver at national, sub-regional and regional levels with the purpose to:

1. raise awareness about groundwater policy, regulation and improvement of practices.
2. built capacity for comprehensive knowledge on aquifers' characteristics and generate awareness on transboundary aquifer management.
3. provide basic understanding of groundwater processes and their interactions with urbanization, agricultural & industrial activities, and land use in the African context.

The course is structured according to modules while each module will run over 1 or two weeks allowing participants to read basic contents and participate in suggested activities. The concept note is fully developed alongside with budget proposals, while discussion is at the advance stage with the German, Federal Institute for Geosciences and Natural Resources (BGR) for funding support to be able to deploy the training programmes in 2022.

1.5.3 Draft Policy White Paper Developed:

Groundwater provides resilient, reliable and generally good quality water to address water security, climate resilience and economic growth, if developed sensibly, sustainably, and skilfully. It is on the backdrop of the above, that AMCOW Groundwater Desk in collaboration IWMI and BGS is packaging a Policy White Paper on Groundwater. This is expected to provide background information to guide informed decisions and commitment of Member States to provide concerted action on groundwater as part of broader commitments to address water and food security and climate resilience in the continent. The White Paper supports and aligns with APAGroP with key objectives as follows:

1. Give background and rationale for focus on groundwater at the pan-African level in a national, continental and global socio-economic and development context
2. Provide backdrop to pan-African development commitments hinging on groundwater for socio-economic development and resilience of Africa
3. Give antecedents, objectives and framework for the African Ministers' Council on Water (AMCOW) Pan-African Groundwater Program's (APAGroP)
4. Provide facts and figures for groundwater and the role and significance of the resource in Africa.

As part of the progress on this activity, AMCOW Groundwater Desk in collaboration with APAGroP partners (BGS and IWMI) had developed a draft of the White Paper, "Groundwater in Africa and AMCOW Pan-African Groundwater Program: Building Blocks for the African Groundwater Policy Framework and Towards Sustainable Groundwater Use and Management". The timeline is that the draft white paper will be presented at a stakeholder meeting (including AMCOW TAC members) slated for late October 2021 for review and inputs. This is expected to be a prelude to eventual presentation of the final draft at the World Water Forum holding in Dakar, Senegal in March 2022.

1.5.4 Development of a Groundwater Country Support Tool:

A case study of Namibia: Within the framework of APAGroP, the development of Groundwater Country Support Tool, is seen as one of the core deliverables aimed to support Member States to ensure sustainable groundwater development and management as means to improve the life and livelihoods of their citizens. To provide strategic partnership platform to share groundwater knowledge and to improve groundwater management, AMCOW Groundwater Desk in partnership with the German, Federal Institute for Geosciences and Natural Resources (BGR) support the development of a Country Support Tool (CST) for groundwater using Namibia as a pilot study. The pilot study aims at achieving the following objectives:

- To analyse the current status and institutional set-up of groundwater development in Namibia,
- To identify key challenges and potentials in groundwater management, and
- To develop an action plan that proposes measures to address the identified needs of, and management, governance and investments in groundwater.

AMCOW alongside with the relevant Ministry in Namibia, SADC GMI and BGR are currently coordinating the development of the Groundwater Country Support tool and its pilot application in Namibia as Advisory Committee (AC). As part of the progress of the study, an inception report had been produced while a follow up context assessment report provides an analysis of the role of groundwater and its development within the water resources context in Namibia.

The expectation is that the pilot study will provide an Action Plan for scaling the Country Support Tool (CST) to other Member States in the near future, in order to unlock groundwater's potential, enhance its development and management for the transformation of the lives and livelihoods in other member states.

1.5.5 Collaboration with UNESCO - Review national groundwater policies and legislative/regulatory frameworks:

Within the framework of African Ministers' Council on Water (AMCOW)'s mandate and AMCOW's pan-African Groundwater Program to supporting Member States to develop, manage, and utilize water resources to enhance water, food and energy security in Africa, AMCOW is collaborating with UNESCO to conduct an inventory of existing regulations on groundwater within members states and in transboundary settings, including a gap analysis. Consequently, United Nations Educational, Scientific and Cultural Organization (UNESCO) and within its programme

of Governance of Groundwater Resources in Transboundary Aquifers (GGRETA) is currently developing a framework for review of national groundwater policies, strategies and legislative/regulatory frameworks in Africa. The aim of the assessment is to provide a methodology for the analysis and assessment (gap analysis), including the inventory, of legislation that is relevant to the management and governance of groundwater in African countries. The expectation of initial deliverables is to develop a Legal Analytical Matrix for a systematic analysis of groundwater-relevant legislation as well as legal gap detection matrix with the methodology of analysis & assessment of national groundwater legislation.

1.6. Next steps / Upcoming Activities

1.6.1 Development of a Scoping Paper for Urban Groundwater:

Although the importance of groundwater for urban water supplies in the towns and cities of Africa is well-known, the extent of utilization is not reported comprehensively. Similarly, the estimated quantity of groundwater available and the sustainability of the resource tend to be limited to the local level. This lack of information can give rise to risks of poor management and the overexploitation of groundwater resources, especially in urban areas. Therefore, as part of the efforts to ensure the realization of potential of groundwater to maintain a sustainable supply over the long term, especially in urban settings where abstraction rates and pollution risks can be high, AMCOW Groundwater Desk in collaboration with the APAGroP Urban Groundwater sub-Group is developing a scoping paper on Urban Groundwater issues titled "Urban Groundwater: for today's residents and for future generations".

The scoping paper is to provide an accessible summary for decision makers on groundwater management and protection for water security and resilience in urban areas of sub-Saharan Africa. The key thematic policy concerns relating to understanding of the groundwater to be highlighted are:

1. Know the resource and its uses while understanding the physical characteristics of your local groundwater setting.
2. Manage the resource efficiently and govern it inclusively and just in order to promote access to groundwater can help deliver commitments to the Sustainable Development Goals.
3. Mainstream groundwater governance and protection in all relevant sectors while recognizing the wider environmental services/benefits of Groundwater.

The expectation is that this scoping paper will be part of policy and advocacy briefs to be presented in respect of groundwater to the TAC and other relevant organs of AMCOW in preparation for high level engagement at the forthcoming 2022 World Water Week in Dakar.

1.6.2 Development of a Framework for Financing Groundwater – A Pilot Study of Uganda:

Effective management of groundwater, as well as good management and maintenance of the infrastructure, is crucial. However, financing is an important but often an underappreciated aspect of groundwater management and maintenance. Consequently, within the framework of APAGroP Working Group, AMCOW in partnership with the German Federal Institute for Geosciences and Natural Resources (BGR) is currently supporting a pilot study on GW financing in Uganda. The study, which is financially supported by BGR, involved a consortium of the Ugandan Ministry of Water and Environment (MoWE),

the United Nations Capital Development Fund (UNCDF) and College of Business and Management Science (CoBAMS), Makerere University. The overall objective of the pilot study is to develop a framework for financing GW in Africa for sustainable groundwater management and utilization. The specific goals of the project are to:

- To develop a conceptual framework on the guiding principles, drivers, enablers of the groundwater finance ecosystem, including a core set of indicators.
- To undertake stakeholder mapping to identify key stakeholders in financing and funding GW, including governments, international and domestic private financial institutions.
- To develop practical and actionable policy recommendations for improving national GW finance ecosystems.

Expected outcome is to produce a framework for financing GW in Uganda and to help in developing practical and actionable policy recommendations for improving national GW finance ecosystems. The expectation is that after successful execution of the pilot study in Uganda, further case studies on groundwater finance will be rolled out and piloted in two other countries (namely, Senegal and Namibia), leading to a common financing framework for African countries.

1.6.3 Establishment of APAGroP Strategic Advisory Committee on Groundwater (SACOG):

As part of the operational strategies to achieve the desired outcomes and vision of AMCOW Pan-Africa Groundwater Programme (APAGroP), the AMCOW Secretariat planned to establish a committee of groundwater experts to support APAGroP with the provision of policy advice and guidance; under the coordination of AMCOW Groundwater Desk.

The establishment or constitution of a Strategic Advisory Committee on Groundwater (SACOG) is expected to be a Pan-African team of groundwater experts to serve as an Advisory Committee to APAGroP about groundwater governance and management in Africa. The overall intent is to ensure the ownership and to provide advice and guidance on sustainable utilization and management of groundwater resources in Africa on matters relating to governance, policies, regulations, institutions and management practices. In addition, the Committee is also expected to advise APAGroP on transboundary aquifers and groundwater water resources management issues for benefits of the Member States. The key functions of the SACOG are to:

1. Advise and assist on development of the AMCOW strategy on key matters on groundwater as part of the AMCOW Strategic Plan 2018-2030, and by extension the Strategic Operational Plan (SOP) 2020-2024.
2. Advise and inform AMCOW Groundwater Desk on groundwater issues relating to strengthen of groundwater governance / institutions capacities and promotion of groundwater programmes at regional and continental levels.
3. Assist AMCOW Groundwater Desk through APAGroP to strengthen the training and capacity development of hydrogeologists professionals and technicians among Member States.
4. Furthermore, the SACOG will support the Groundwater Desk of AMCOW in the production of occasional policy briefs for promoting sustainable groundwater management including groundwater governance of transboundary aquifers in Africa.

The overall benefit to member states is that SACOG will be a sort of team of African Experts serving as “Think-Tank” to support, advice and guide APAGroP’s initiatives, strategies and programs in ensuring sustainable utilization and management of groundwater resources in Africa. The detail concept note, outlining the basis, composition, statute and operational guidelines for the Strategic Advisory Committee (SACOG) is presented in Annex 1:

1.6.4 Organizing Workshops and Training / Webinars:

In conjunction with partners in GW Sector (specifically UNESCO). There is a plan to Organizing Workshop / Online Training in Groundwater Mapping using remote Sensing involving participants from Member States. Other workshops and training envisaged are to focus on (i) African GW Resource Management and Transboundary Groundwater Management (Webinars). (ii) Significance of GW data in Groundwater Governance and management (Webinar). The goal is to Strengthen water resources development and management in Member States.

1.7. Proposed Request to the Technical Advisory Committee (TAC)

The Secretariat requests TAC to make recommendations to the Governing Council as follows:

The Governing Council:

1. Commends the Secretariat for the engagement of partners on the initiative to develop groundwater resources through the AMCOW Pan-African Groundwater Program (APAGroP).
2. Calls upon Member States to cooperate with the AMCOW Secretariat by facilitating easy access to relevant information regarding national policy review and related stakeholders' mapping in groundwater sector.
3. Urges the Secretariat to take the necessary steps towards the setting up of the Strategic Advisory Committee on Groundwater (SACOG) to offer advisory services and expertise for the implementation of the APAGRoP initiative for the benefit of Member States.

