Kingdom of Morocco

HASSAN II Academy of Science and Technology

CONCEPT NOTE FOR AMASA 2025

Water and Green Hydrogen – Scientific Pathways for Sustainable Development in Africa

Dates: 17–21 November 2025
Venue: Hotel Sofitel Jardin des Roses, Rabat, Morocco
Host: Hassan II Academy of Science and Technology
Organized by: Network of African Science Academies (NASAC)

1. BACKGROUND AND RATIONALE

The **Annual Meeting of African Science Academies (AMASA)** is NASAC's flagship platform for advancing science-informed policymaking in Africa. Each year, AMASA brings together distinguished scientists from various national academies, government leaders, and development stakeholders to deliberate on a pressing issue of continental importance. The conference fosters exchange between science and policy, generates actionable recommendations, and strengthens the capacity of African academies to respond to development challenges. Since its inception, AMASA has grown into a pivotal convening space where science and diplomacy intersect for Africa's progress.

The 2025 edition of AMASA takes on renewed urgency and relevance with its focus on ***"Water and Green Hydrogen – Scientific Pathways for Sustainable Development in Africa."*** These two interconnected sectors are central to Africa's long-term resilience in the face of climate change, economic transformation, and energy transition. Water is foundational for life, agriculture, health, and ecosystems, yet millions in Africa still have limited access to clean and reliable water. Meanwhile, green hydrogen – produced using renewable energy sources like solar and wind – offers an emerging frontier in Africa's ambition to leapfrog into a low-carbon industrial future.

Positioning this theme within the AMASA framework provides a timely opportunity to align Africa's scientific capabilities with its policy priorities. The water-energy-climate nexus demands interdisciplinary approaches and cross-sectoral coordination — precisely the kind of collaboration AMASA is designed to foster. By convening experts and decision-makers across water management, clean energy, infrastructure, and research, AMASA 2025 will help unlock synergies and propose concrete steps toward a sustainable, equitable, and science-driven development path.

Hosting AMASA 2025 in **Morocco** adds strategic depth to the theme. Morocco is a recognized leader in Africa's green energy transition, with flagship projects in solar power, desalination, and green hydrogen research. Its national commitment to renewable energy and sustainable water solutions serves as a living laboratory from which the rest of Africa can learn. Rabat, the seat of the **Hassan II Academy of Science and Technology**, offers not only symbolic prestige but also proximity to research institutions, policymakers, and innovators driving Morocco's environmental transformation. The visit to Tangier's industrial port – a green logistics and automotive hub – will further demonstrate the practical integration of water and clean energy solutions in real-world settings.

2. OBJECTIVES

2.1 Scientific Deliberation: Examine recent scientific developments in water resource management and green hydrogen technologies pertinent to Africa.
2.2 Policy Engagement: Discuss policy frameworks and governance structures that support sustainable water and energy systems.
2.3 Capacity Enhancement: Identify strategies for strengthening research, education, and innovation capacities in related fields.
2.4 Collaboration and Networking: Foster partnerships among African science academies, international institutions, and industry stakeholders.
2.5 Field Insight: Provide practical exposure through a site visit to Morocco's car manufacturing port, illustrating industrial applications of green hydrogen.

3. SUB-THEMES

3.1 Water Security and Management

- Innovations in water harvesting, purification, and distribution
- Integrated water resource management and transboundary cooperation
- Climate change impacts on water availability and strategies for resilience

3.2 Green Hydrogen Development

- Technological advancements in green hydrogen production and storage
- Infrastructure and investment opportunities in the hydrogen economy
- Safety standards and regulatory considerations for hydrogen deployment

3.3 Water-Energy-Climate Nexus

- Synergies between water and energy systems in the context of climate change
- Sustainable agriculture and food security through integrated resource management
- Environmental impacts and mitigation strategies in water and energy projects

3.4 Policy and Governance

- Developing coherent policies for water and energy sectors
- Role of science academies in advising and shaping national policies
- Financing mechanisms and public-private partnerships for sustainable projects

3.5 Education and Capacity Enhancement

- Enhancing STEM education and research in water and energy disciplines
- Promoting gender inclusivity and youth engagement in scientific fields

- Establishing centers of excellence and regional research networks

4. TENTATIVE PROGRAMME OVERVIEW

DATE	ACTIVITY
17 Nov (Mon)	Arrival of participants **NASAC Board Meeting** (morning) **Learning Collaborative Workshop** (afternoon)
18 Nov (Tue)	Excursion to Tangier – Visit to Morocco's car manufacturing and industrial port
19 Nov (Wed)	**Opening Ceremony** (morning) **Conference Day 1**: Opening Ceremony, plenary sessions and thematic panels
20 Nov (Thu)	**Conference Day 2**: Breakout discussions and expert panels
21 Nov (Fri)	**Half-Day Conference Day 3**: Closing Ceremony & Communiqué (morning) **NASAC General Assembly** (afternoon) Departure of participants (evening)

5. EXPECTED OUTPUTS

- **Conference Communiqué and Report:** A document outlining key recommendations and action points for policymakers and stakeholders.
- **Policy Briefs:** Thematic briefs summarizing discussions and proposed strategies in each sub-theme area.
- **Collaborative Initiatives:** Identification of collaborative projects and partnerships among participating institutions.
- **Capacity Development Plans:** Frameworks for enhancing education and training in water and green hydrogen sectors.

6. PARTICIPATION

The conference will bring together:

- Members of African and international science academies
- Government officials and policymakers
- Researchers and academics
- Industry leaders and entrepreneurs
- Representatives from NGOs and civil society
- Students and early-career professionals

For further information, please contact:

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