

CWW2024

**Water and Climate:**  
Building Resilient Communities

**13<sup>th</sup> – 17<sup>th</sup> Oct 2024**

**Triumph Luxury Hotel,  
Cairo – Egypt.**



# Mapping out Egypt's Water sector Priorities



# Ministry of Water Resources and Irrigation Priorities

- Climate Change Adaptation and Mitigation
- Water Management
- Regional Training and Capacity Building
- Research and Development
- Transboundary Cooperation

# Climate Change Adaptation and Mitigation

## **(1) Project Title :**

Effects of Climate change on the operation of coastal pumping stations

## **Sector :**

Mechanical and Electrical Department

## **Project objective:**

Ensuring the safe and proper operation of the pumping stations as a result of changing the pump units designed water levels.

**Duration : 6 month**

**Total Required Fund (Thousands €): 200**

## **(2) Project Title :**

Temperature rise effect on the operation and Maintenance of the pumping stations Climate change adaptation and mitigation

## **Sector :**

Mechanical and Electrical Department

## **Project objective:**

Climate change adaptation and mitigation in regard to temperature rise and propose intervention measures to overcome the effect of temperature rise on the electromechanical equipment.

**Duration : 6 month**

**Total Required Fund (Thousands €): 200**

# Water Management

## (3) Project Title:

National Drainage project IV (NDP4)

## Sector :

The Egyptian public Authority for Drainage Projects

## Project objective:

- Improve agricultural economics
- Improve drainage water quality to increase chance for reuse
- Applying integrated water resources management rules
- Support farmer participation in maintenance operation

Duration : 12 month

Total Required Fund (Million €): 700



**(4) Project Title:**  
Water Management in Wadi El Nokra

**Sector :**  
Mechanical and Electrical Department

**Project objective:**  
Overcome water shortage at wady El nokra area resulted from aging of the pumping stations and bad condition of El the nokra canal

**Duration : 2 years**

**Total Required Fund (Million €): 35**

## **(5) Project Title:**

Enhancing functional performance of pumping station via increasing reliability and availability and optimizing the energy consumption with applications to 20 P.S in Delta

## **Sector:**

Mechanical AND Electrical Department

## **Project objective:**

- Increase the operation efficiency of the pumping stations and decrease the power consumption and hence lower CO2 emission.
- Satisfying water demands at areas depends on the pumping stations
- Achieving minimum cost of lifting water
- Decrease the operation and maintenance cost of pumping stations

**Duration: 6 month**

**Total Required Fund (Thousands €): 200**

## **(6) Project Title:**

**Assessing the operation efficiency of the floating pump stations**

## **Sector :**

**Mechanical and Electrical Department**

## **Project objective:**

**Overcome water shortage at served area about 35000 Fadden in upper Egypt that may be resulted from aging of the floating pumping stations and improper and unstable operation of the pump units in threes floating stations**

**Duration : 6 month**

**Total Required Fund (Thousands €): 100**



# Regional Training and Capacity Building

## (7) Project Title:

Regional Center for Training and Water Studies (RCTWS) as the headquarter of the Pan-African Centre for Water and Climate Adaptation (PACWA)

## Sector :

Regional Center for Training and Water Studies (RCTWS)

## Project objective:

- Assist (PACWA) in aligning with international standards through the enhancement of curricula, infrastructure and facilities.
- Upgrading of laboratories, equipment and facilities such as accommodation rooms and other training services.
- Accommodate around 18 regular, internationally recognized training programs in line with the Action on Adaptation and Water Resilience Initiative (AWARe) at its focal training center.
- Benefit about 1400 trainees from Egypt and various African countries. It aims to improve their knowledge and skills in water and climate management.

**Total Required Fund (Million €): 8**

# Research and Development

## **(8) Project Title:**

**Spatial Optimization of National Water Quality Monitoring Network in Egypt**

## **Sector :**

**CLEQAM (lead)- RIGW- DRI- NRI-CMRI-WMRI - GWS (Ground water sector) - Planning Sector**

## **Project objective:**

**To enhance the effectiveness of Egypt's national water quality monitoring network by optimizing the spatial distribution of monitoring stations, ensuring comprehensive coverage, accurate data collection, and improved management of water resources across the country.**

## **(9) Project Title:**

Developing a WEF nexus index for improved resources management under different climate changes scenarios

## **Sector :**

National Water Research Centre (WMRI - MERI - SRU - CLEQAM)

## **Project Objective:**

Develop an integrated water-food-energy nexus index for assessing the impact of water management projects on the water-food-energy nexus of different crops under climate change scenarios. The developed index helps the decision makers in the process of evaluating the impact of different strategies and plans for water management under climate change based on the WFEEN. In this project, the developed index will be applied to evaluate the impact of applying the WFEN approach on the economic, social, and environmental aspects.

## **(10) Project Title:**

**Developing a Comprehensive Toolbox for Integrated Coastal Wetland Management**

## **Sector :**

**National Water Research Center CORI - SPA ( Shore Protection Authority )**

## **Project Objective:**

**To create a comprehensive set of tools and strategies for effectively managing coastal wetlands, integrating ecological, economic, and social considerations to enhance their sustainability and resilience.**

## **(11) Project Title:**

**Climate-Responsive Water and Agriculture Management in the Nile Delta  
Coordinating Strategic Within Water Availability Challenges**

## **Sector :**

**National Water Research Centre (WMRI- CMRI- Irrigation department)**

## **Research Objective :**

**To develop and implement strategic water and agriculture management practices in the Nile Delta that are responsive to climate variability and extreme events, addressing water availability challenges, and promoting the use of climate-resilient crop varieties to ensure sustainable agricultural productivity in the face of climate change impacts**

## **(12) Project Title:**

**Evaluating the Impacts of Upper Nile Projects on Water Quantity and Quality at HAD Under Different Operational and Climate Change Scenarios**

## **Sector :**

**National Water Research Centre : NRI – WRRI - CLEQAM - Nile water Sector**

## **Objective :**

**To assess the impacts of climate change and Upper Nile projects on water resources ( Quantity and Quality ) on HAD using different Scenarios using mathematics models to help us to predict what happen in the future**

# Transboundary Cooperation

**(13) Project Title:**  
Hydropower Dams

**Sector :**  
Nile Water Sector (NWS)

**Project objective:**

- Renewable Energy Generation provides a sustainable energy source by utilizing the natural flow of water.
- provide electricity to remote and rural areas that are not connected to the main power grid, improving the quality of life for residents.
- clean and renewable hydropower.

**Duration :**

- Total Required Fund for Mini Hydropower Mabkana 1 (DRC) availability FS NEW is 14.6 Million €
- Total Required Fund for Mini Hydropower Mabkana 2 (DRC) Availability FS NEW is 30.6 Million €
- Bedden Dam (South Sudan) Availability FS old is 1600 Million €

## **(14) Project Title:** **Rain Water Harvesting Dams**

**Sector :**  
**Nile Water Sector (NWS)**

### **Project Objective:**

- Gathering and storing rainwater for increased water availability.
- Secure the water needed for drinking, domestic use, and livestock drinking, located in different regions in Nile Basin Countries.
- Flood Control and Reducing dependency on other water sources
- Supporting agriculture and irrigation and Promoting groundwater recharge

**Duration : 3 years**

**Total Required Fund (Million €): 10**



## **(15) Project Title:** **Aquatic Weeds Control**

**Sector :**  
**Nile Water Sector (NWS)**

### **Project Objective:**

- Facilitate Navigation in the rivers and access to water in the lakes and water bodies (10 Million €) in South Sudan
- Flood protection for village and rivers banks, Achieve sustainable development goals. (15 Million €) in Sudan (pending)
- Improve the social, economic, and health conditions by reducing the spread of water-related diseases and epidemics (5 Million €) in Uganda
- Improve fishing for the local communities. (10 Million €) in Tanzania

**Duration : 5 years**

## **(16) Project Title :**

**Establishment A Navigational Line Between Lake Victoria and the Mediterranean (VICMED)**

## **Sector :**

**Nile Water Sector (NWS)**

## **Project Objective:**

- **Achieve socio-economic integration among Nile river basin footprint countries. Part 1 (12 M.USD)**
- **Countries participated : Burundi, DRC, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania, and Uganda**
- **Achieve a sustainable integrated multimodal transport system among Nile river basin footprint countries. Part 1 : ( 6 M.USD) actually distributed 1,150 (M.USD)**