Kingdom of Cambodia

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SUMMARY REPORT

Achievements of the Ministry of Water Resources and Meteorology, Cambodia National Mekong Committee and Tonle Sap Authority for the year 2024 and the Implementation Plans for 2025

The summary of the work achieved in 2024 of the Ministry of Water Resources and Meteorology is as follows:

1. OVERNANCE, HUMAN RESOURCESA ND FINANCIAL MANAGEMENT

1.1 Governance

- Strengthen leadership, management, and coordination in accordance with legal principles, procedures, and a clear hierarchy of division of labor.
- Reform the governance of the Ministry by establishing inter-ministerial committees, sub-committees, and working groups to increase work efficiency.
- Review the structure, analysis, functions, and operations of the Ministry of Water Resources and Meteorology according to the first phase of the Pentagonal Strategy of the Royal Government of the 7th legislature of the National Assembly.

1.2 Human Resources Management

- 366 civil servants were promoted, including 216 at the central level and 150 at the provincial level.
- Appointed and assigned duties to 34 civil servants.
- Removed the names of 9 civil servants who passed away or resigned from their jobs.
- Supported the annual retirement of 27 civil servants.
- Updated 85% of the CV data of civil servants of the Ministry of Water Resources and Meteorology in the system of the Ministry of Public Works.
- Prepared and submitted the human resource plan for 2025 to the Ministry of Civil Services and prepared the plan to deploy civil servants after completing the review of the structure and functional analysis of the unit.
- Provided training to strengthen the capacity of civil servants both domestically and abroad, with a total of 591 people, including 150 in the capital-provincial departments.

1.3 Financial Management

- Prepared and implemented disbursements across five programs: 1) Water Resources Management and Development, 2) Flood and Drought Management, 3) Water Resources Protection and Conservation, 4) Information Management on Water Resources and Meteorology, and 5) General Administration.
- The Ministry has successfully disbursed 100% of funds for all five programs. Notably, a significant portion of the budget was allocated to the first program—Water Resources Management and Development—focused on the restoration, maintenance, repair, and construction of reservoirs and irrigation systems. This aims to contribute to water security for household, agricultural, industrial, and ecological use, as well as to reduce floods and droughts.

2. POLICY, LEGISTALTION, AND TECHNICAL STANDARDS

2.1 Policy and Legislation

- Developed a five-year strategic plan for the development of water resources and meteorology (2024-2028).
- Conducted studies and implemented strategies on water resources development and road maps for efficient, modern, and sustainable water resources management (2019-2033).
- Issued Decision No. 128 of the Ministry of Water Resources and Meteorology dated 8 November 2024, regarding the organization and functioning of the Secretariat of the Sand Resources Management Committee.
- Completed five additional documents related to the establishment and management of Farmer Water User Communities (FWUC) and the Guidelines on Operation and Maintenance of Irrigation Systems through the Water Resources Management and Agricultural Exchange Program in Cambodia WAT4CAM Phase 1.
- Collected information and data to prepare a series of reports on two river basins: Stung Boribo and Stung Ponnak. The Ministry has been working to strengthen policies, strategic plans, and legal documents to ensure the sustainable management and development of water resources in the Kingdom of Cambodia, aiming to guarantee water security for its people. The Ministry has prepared a total of six books/technical guides/documents, including one book on the general characteristics and hydrology of rivers and streams in Cambodia, one technical guidebook on riverbank protection methods, and three technical notebooks on reservoir dam operations (Sek Sak, Reaksa, and Tasal dams).

2.2 National Standards for Irrigation Systems

- Prepared national standard documents for irrigation systems, including criteria for the study of the main construction project (Kbal Hong Teuk) and criteria for the study of canal projects and related constructions.
- Prepared national standard documents for irrigation systems, including a technical guidebook for the study of the main building block (Kbal Hong Teuk construction), a guidebook for the study of canal works and related constructions, as well as technical design standards for canal works.

3. WATER INFRASTRUCTURE DEVELOPMENT

3.1 Infrastructures for Water Resources Development and Management

In 2024, the Ministry achieved significant progress in physical infrastructure development:

- Cambodia now has a total of 2,352 irrigation systems across 25 capitals and provinces, comprising:
    - 56 large-scale systems
    - 1,166 medium-scale systems
    - 1,122 small-scale systems
    - 8 large-scale reservoirs

Additionally, the Department of Engineering constructed and rehabilitated a total of 31 irrigation projects in 2024.

A. Rehabilitation and Repair of Irrigation Systems Damaged by Floods in 2023:

- Rehabilitated and repaired 11 irrigation systems, encompassing:
    - 34,900 meters of dams
    - 27,960 meters of canals
    - 26 structures

B. Irrigation Rehabilitation and Development Project Planned in 2024:

- Rehabilitation of 14 irrigation projects, including:
    - 13,125 meters of dams
    - 45,350 meters of canals
    - 134 structures
- Expansion of 2 irrigation projects:
    - 2,500 meters of dams
    - 1 structure
- Construction of 4 new irrigation projects:
    - 1,000 meters of dams
    - 3,150 meters of canals
    - 8 structures

In 2024, the Department of Irrigated Agriculture and the Provincial Departments of Water Resources and Meteorology carried out maintenance work on a total of 172 irrigation systems across 25 capitals and provinces, including:

- Year-round maintenance of 5 irrigation systems
- Maintenance of 12 large-scale irrigation systems
- Maintenance of 155 medium-sized irrigation systems
- Maintenance and repair of 8 Indian (Kirloskar) mobile pumps (65 horsepower)
- Maintenance and repair of 3 pumping stations
- Urgent repair interventions for 40 irrigation systems
- Interventions to salvage dry season rice in 15 target provinces and wet season rice in 6 target provinces, covering a total area of 87,416 hectares

For the work of Farmer Water User Community (FWUC), by 2024:

- Established a total of 577 Farmer Water User Communities.
- Strengthened FWUCs through 177 inspections and technical support, covering 453,939 hectares of wet season paddy and 139,919 hectares of dry season paddy, benefiting 379,094 farming families.

- Established 7 new FWUCs, covering 11,531 hectares of wet season paddy and 2,389 hectares of dry season paddy, benefiting a total of 11,613 farming families.

In total, the Ministry has repaired and constructed small- and large-scale irrigation systems across the capitals and provinces, completing 204 projects. These efforts have increased the irrigation capacity to cover:

- 21,146 hectares of rice (13,037 hectares of wet season rice and 8,109 hectares of dry season rice)
- 275 hectares of mixed crops
- 2,837 hectares of orchards
- 4,705 meters of protected riverbanks

In addition to expanding irrigation capacity, the Ministry also focuses on maintaining the sustainability of irrigation across:

- 595,731 hectares of rice (485,732 hectares of wet season rice and 109,999 hectares of dry season rice)
- 5,142 hectares of mixed crops
- 4,141 hectares of orchards
- 12,095 hectares of rain-fed rice, preventing saltwater intrusion

3.1 Water Infrastructures for Water Resources Monitoring, Management and Conservation

- **Data management and flood forecasting:** As of 2024, there are 68 operational stations and 30 non-automatic hydrological stations. The Department of Hydrology and River Works monitors the water levels of the Mekong, Tonle Sap, Tonle Bassac, and some major rivers on a weekly basis during the dry season and provides daily water level forecasts. Since the rainy season of 2024, hydrological information has been uploaded on the department's website, the database system has been integrated into the computer, and the database has been regularly exchanged with MRC member countries through HydMet and email. Additionally, the Mekong-Hycos Station and AHS (Automatic Hydrological Station) have been inspected and maintained.

- **Hydrological and riverbank works:** Installation and maintenance of hydrological stations have been performed according to plan. In 2024, the Ministry carried out riverbank protection work covering a length of 4,705 meters.

- **Water quality monitoring and analysis:** Monitoring and assessment of water quality in the Mekong, Tonle Sap, Tonle Bassac, and some major rivers have been conducted at 19 stations, analyzing 18 parameters.

- **Meteorology and weather forecasting:**

    - Developed the MOWRAM mobile application to provide weather information.
    - Repaired and maintained 24 automatic meteorological stations, 4 non-automated meteorological stations, and 16 rain gauge stations.
    - Maintained and operated the data transmission and receiver system of the Techo Sen Radar Station.
    - Conducted daily weather forecasts (weekly, monthly, seasonal, and yearly) using NWP technology and provided early warnings for possible severe weather by transmitting

meteorological data to the Global Telecommunication System (GTS) / World Information System (WIS).

- **Flood and Drought Disaster Management:** Participated in the prevention and interventions of floods within the national framework and intervened through water pumping to save dry season rice affected by droughts and floods, covering an area of 9,864 hectares.

- **Water Resources Data and Information Management:** The Ministry has continued to push for the drafting of a sub-decree on water licensing and has actively studied, researched, and collected rainwater catchment data at major canals, rivers, and water sources, as well as at factories and enterprises requesting water usage.

- **Water Supply and Sanitation:** The Department has built two additional groundwater monitoring wells in Prey Veng and Svay Rieng provinces. The department collects and records monthly groundwater level data from 32 wells—20 in Prey Veng province and 12 in Svay Rieng province. As a result, the groundwater situation in these two provinces, as well as in other provinces, has been declining year by year due to climate change and increased water use.

4. COOPERATION WITH MINISTRIES/INSTITUTIONS AND DEVELOPMENT PARTNERS

4.1 Cooperation between ministries/institutions

- Continued cooperation with relevant ministries that use water resources to ensure efficient and sustainable utilization. This includes:
  - Collaboration with the Ministry of Agriculture, Forestry and Fisheries through a joint technical working group on agriculture and water.
  - Working with the Ministry of Environment as the focal point for UN Water in the development of SDG 6.5.1: Integrated Water Resources Management (IWRM), which requires evaluation every two years.
  - Participation in the Climate Change Technical Working Group and the Tonle Sap Biosphere Resource Management Coordinating Working Group.
  - Membership in the Cambodian Investment Committee of the Council for the Development of Cambodia to coordinate and review investors' investment proposals.

- Three ministerial meetings on Agriculture-Water-Rural coordination were organized to implement programs, policies, priorities, and activities related to modern farming communities, farmers' water user communities, and model villages. The Tri-sectoral Working Group on Agriculture-Water-Rural was established, and six targeted communities have been selected and agreed to start piloting joint interventions beginning in 2025.

- **Funan Techo Canal Work:** The Ministry has actively collaborated with the Ministry of Public Works and Transport to inspect the location for data collection, verification, and demarcation of the standard road for the Prek Chik Funan Techo project. As of December 2024, the first section, spanning 21 kilometers from Prek Takeo on the Mekong River to Prek Po on the Bassac River, has been completed.

4.2 Cooperation with Development Partners

The Ministry has continued to cooperate with development partners, including the Asian Development Bank (ADB), the French Agency for Development (AFD), the European Investment Bank (EIB), the Japan

International Cooperation Agency (JICA), the Korea International Cooperation Agency (KOICA), the World Bank (WB), and countries such as Japan, India, Korea, and the People's Republic of China.

There are two projects funded by development partners and the government budget completed in 2024 with a budget of approximately $ 119.78 million:

- Construction of irrigation and flood protection system in Stung Prek Thnoat in Phnom Penh, Kandal and Takeo with financing from China EXIM Bank of China $ 120 million
- Construction project of Otethipadei Dam, Upper Dam, Lower Dam under the Royal Government Budget.

There are 13 projects funded by development partners and the ongoing Royal Government with a budget of approximately $ 1,288.13 million

5. GENDER CONTRIBUTION TO WATER REOSURCES DEVELOPMENT AND MANAGEMENT

"The world will be safer, more beautiful, and warmer if more women become leaders," said **Samdech Moha Bovor Thipadei Hun Manet, Prime Minister of the Kingdom of Cambodia**. With the gender and role of women in Cambodia, it is enhanced through institutionalization and gender mainstreaming, which will enable Cambodia to rank well as a country that provides comprehensive freedom for women (Pentagonal Strategy).

As of December 31, 2024, the Ministry of Water Resources and Meteorology has a total of 1,267 civil servants, including 294 females (745 civil servants at the national level with 186 females, and 523 civil servants at the sub-national level with 108 females).

Out of 23 provinces, there are 340 FWUC Committees with a total of 1,581 committee members, including 321 female members, which is about 20%. The Ministry has been prioritizing and supporting both technical and financial terms to build gender capacity for development and participation in water resources management. It has developed mechanisms to increase opportunities for capable women civil servants to access decision-making roles at the national and capital-provincial levels to contribute to reducing the gender gap and achieving gender equality in human resource development and management. Women are indispensable partners in all areas of development.