



Climate Adaptive Irrigation and Sustainable Agriculture for Resilience (CAISAR) | Cambodia



EB Consultations, 1 September 2025

CAISAR AT A GLANCE



Country & Provinces	Cambodia: <ul style="list-style-type: none">Kampong SpeuKampong ChhnangKandal,Pursat
Implementing Entities	Ministry of Water Resources & Meteorology (MOWRAM) and National Committee for Sub-National Democratic and Development Secretariat (NCDDS) <i>Accredited Entity: IFAD</i>
Duration	7 years (project) Lifespan: 30 years
Financing	Total Cost: US\$ 240 million <ul style="list-style-type: none">IFAD: US\$ 45 millionGCF: US\$ 80 millionAIIB: US\$ 100 millionRGC: US\$ 15 million
Beneficiaries	1,714,375 total <ul style="list-style-type: none">562,757 direct (225,103 women), across a 32,056 ha irrigated area with significant productivity gains.
GCF Result Areas	66.8% Adaptation 33.2% Mitigation; 1,006,507 tCO ₂ -eq avoided

PROGRAMME RATIONALE

Problem Context

- The Tonle Sap Lake Basin, often referred to as the rice basket of Cambodia, undergoes **cycles of severe droughts and floods**.
- Rice yields and incomes are becoming increasingly volatile due to **growing weather variability**, yet only 15% of rice land is irrigated, leaving the majority of farmers vulnerable to climate stress.
- **Institutional Capacity Gaps** in Climate-Resilient and Low-Emission Development.



Programme Logic

- Modernise and set up **six climate-proof irrigation schemes** to secure water supply and reduce flood damage.
- Scale **climate-smart farming practices**, deliver real-time climate information and early warnings to farmers, diversify value chains via Public-Private-Producer Partnership grants.
- **Strengthen MOWRAM, NCDDS and Farmer Water User Committee (FWUCs)**: through targeted training, digital tools, and regulatory support.

PROGRAMME COMPONENTS

COMPONENT 1: Farm-level Climate Adaptation



- Improved crop-water management; climate-smart value chains (rice, vegetables, poultry, aquaculture); rural-road upgrades; and expanded agro-meteorological services.

COMPONENT 2: Upgrading & Climate- Proofing Water Infrastructure



- Modernized irrigation schemes and ponds; strengthened flood-proofing and drainage; and establishment and training of Farmers Water User Communities.

COMPONENT 3: Institutional Strengthening



- Enhanced capacity of Executing Entity for low-emission, climate-resilient irrigation governance and water-resources management.

SPECIAL FEATURES

International Rice Research Institute (IRRI)-validated agronomic package including alternative wet dry (AWD), mechanized direct-seeded rice, laser land leveling and straw management—for climate-smart paddy production.

Gender & youth mainstreaming ≥ 40 % women trainees; integrates water-resource analytics with Area of Cumulative Groundwater Flow (ACGF) flood-risk tools.

4P facility crowds-in MSME finance for climate-adaptive value chains; linked to the Pentagonal Strategy & IFAD COSOP 2022–27



- **Digital climate-information services** and community action plans reaching 90 000 farmers, creating a pipeline for private investment beyond the project lifecycle
- **1,600 Farmer Field Schools** trained **40,000 farmers** (40% women, 15% youth) through a cascade model, supported by 200 certified master trainers.
- **120 MSMEs** and **5,000 farmers** were trained in business development, with private sector partners delivering extension services, adaptive inputs, and irrigation system management via FWUCs.

Thank You

