

## **Audit finds lack of institutional coordination cost irrigation development**

Dec 9<sup>th</sup> 2022

Trongsa dzongkhag spent Nu 4.3 million to construct several water storage tanks for irrigation in Korphu gewog in 2015. Today, the water sources feeding the tanks dried up and the irrigation infrastructure remain idle.

In Kangpar gewog, Trashigang, a storage tank was constructed but washed away by erosion as the tank was constructed in the marshy area without studying the stability of the soil.

The Royal Audit Authority (RAA) in its audit report on irrigation systems stated that lack of coordination, planning without feasibility studies, inadequate data on water resources, and non-adherence to plans and policies were issues in the current irrigation systems.

The Performance Audit Report on Irrigation Systems 2022 was conducted to ascertain the economy, efficiency, and effectiveness in the development and management of reliable, adequate and sustainable irrigation systems.

The audit team visited 152 irrigation schemes in 11 dzongkhags (Bumthang, Dagana, Mongar, Paro, Pemagatshel, Punakha, Tsirang, Trashigang, Trashiyangtse, Trongsa, and Wangdue).

RAA in the report noted a lack of coordination between the Department of Agriculture (DoA) and the Department of Forests and Park Services on complementing its roles in managing water sources and watersheds through information-sharing.

“There is a lack of coordination with other agencies which has resulted in causing damages to irrigation schemes due to expansion of roads and other developmental activities,” the report stated.

RAA noted that there was no practice of carrying out multi-disciplinary feasibility studies while proposing irrigation projects. “There is no record of assessing the requirement and its compliance by the authorities in the process of proposing the irrigation projects.”

Despite the huge investment made in developing the National Irrigation Master Plan as a roadmap for irrigation development in the country, the agriculture department has not been able to operationalise the intent of the master plan through integration into the Five Year Plans, the auditors wrote.

“Therefore, the department’s core mandate to ensure the sustainability of the irrigation system to realise the food security would be derailed and attaining the desired outcomes would be far-fetched without any strategic focus for the sector.”

RAA noted that considering the achievement of targets so far, the financial resource of Nu 101.28 million spent on developing a national irrigation master plan has not been able to achieve value for money.

Several issues noted on sight were narrow canals, lack of technology to drain out sand from tanks, and the wrong installation of inflow and outflow pipes, among others.

In the past five financial years, a total expenditure of Nu 2.18 billion was made for irrigation systems development and rehabilitation.

The expenditure was made by the government and financial assistance from donors (a total of Nu 1.35 billion which is 62.02 percent of the total expenditure).

RAA found that there is no comprehensive irrigation inventory maintained either with DoA or dzongkhags and gewogs to provide necessary information on existing schemes including the record of renovations carried out so far. Even with the existing records, there were several cases of mismatch of basic information such as names, numbers, and length of the irrigation schemes.

The audit finding noted inadequacies in institutional structures to implement Integrated Water Resources Management.

According to the Water Act of Bhutan, the National Integrated Water Resources Management is formulated for coordinated development, management, conservation and efficient use of water resources.

RAA report stated, “Water resources were not adequately mapped and documented to guide effective irrigation planning based on the reliability and demand of water across the country.”

The lack of water resource information led to improper planning. Some “irrigation infrastructures were constructed but became non-operational due to unreliable water sources”.

The audit report stated the non-integration of the National Irrigation Master Plan into the Five Year Plans.

The National Irrigation Master Plan envisaged the direct and indirect benefits of investing in irrigation development.

“The direct benefits relate to increases in yield and crop production and the indirect benefits of increasing employment opportunity, support to livestock development, food security and development of climate resilient agriculture system, all of these constituting aspirations of national development goals,” it stated.

With inconsistent data, it was noted that the irrigation master plans have become irrelevant and the line of sight blurred in terms of achieving the overall sectoral goal of food self-sufficiency.

RAA recommended the National Environment Commission to expedite the operation of the National Integrated Water Resource Management Plan; DoA to explore and adopt appropriate technologies for sustainable irrigation infrastructure, and update a comprehensive inventory of irrigation systems in the country.

**Chhimi Dema**