

1. EXECUTIVE SUMMARY

Background on this audit

Preservation of environment is one of the four pillars of Gross National Happiness, the development philosophy of Bhutan. Bhutan's commitment in protecting and preserving the fragile mountain ecosystems and its natural forests is enshrined in the Constitution of the Kingdom of Bhutan. Article 5.3 of the Constitution stipulates as *'The Government shall ensure that, in order to conserve the country's natural resources and to prevent degradation of the ecosystem, a minimum of sixty percent of Bhutan's total land shall be maintained under forest cover for all time.'*

Article 1.12 further stipulates as *'The rights over mineral resources, rivers, lakes and forest shall vest in the State and are the properties of the State, which shall be regulated by law'*.

Article 25.1 of the Constitution of the Kingdom of Bhutan and Section 3 of the Audit Act of Bhutan 2006 state that, *"There shall be a Royal Audit Authority to audit and report on the economy, efficiency, and effectiveness in the use of public resources"*.

In line with this important constitutional responsibility and importance of forest eco-system and sustainable forest management, the RAA conducted the performance audit of forest with special focus on the National Forest Inventory, forest fires and watershed management activities on our assessment of the risks related to sustainable forest management in Bhutan.

Why RAA conducted this audit?

Existence of strong legislation and policies has significantly contributed in preserving our forests. However, forests have certain inherent risks such as the risks of forest fire and risk associated with reduced water quality which have adverse impact on the sustainable management of forests. While many controls were in place particularly due to existence of strong legislations and policies, there were inadequacies in certain controls. Accordingly, the audit was conducted with the following objectives:

- (i) To assess whether the Department of Forest and Park Services has maintained the forest inventory as per type of vegetation, growing stock, description of stands, etc.; and
- (ii) To understand the rigour and adequacy of strategies implemented by the Department to manage forest fires and destruction of water quality risks.

For the purpose of audit, the activities of the Forest Resources Management Division (FRMD), Forests Protection and Enforcement Division (FRED) and Watershed Management Division (WMD) under

the Department of Forests & Park Services (DoF&PS) were reviewed. Though the National Environment Commission, the autonomous agency under the Royal Government of Bhutan is a lead and regulatory agency for overall coordination of water resources in Bhutan, only the watershed management activities of the WMD were reviewed. The activities of WMD are critical for sustainable national economy which is largely depended on electricity and agriculture which in turn are highly reliant on the state and condition of the country's watersheds, watershed management and planning.

What RAA found?

Due to farsighted and visionary leadership of successive monarchs, Bhutan is very much in the forefront in preserving the pristine environment. Environmental preservation has always remained a top priority for Bhutan. Bhutan's forest eco-system is still very much intact despite increasing pressure from rapid developmental activities. Indeed the initiatives and achievements made in preserving forest eco-system are commendable. Royal Government's efforts and initiatives in preserving the environment have received global attention and recognition. Bhutan is a recipient of many international awards.

Notwithstanding the achievements and accomplishments, the RAA observed certain inadequacies where improvements are desirable as briefly outlined below:

- ✘ The Department needs specific reporting and monitoring mechanism to check on the trend of the Constitutional requirement of sixty percent forest cover for all times to come.
- ✘ The Department is still in the process of formulation of the National Forest Inventory (NFI) which should be the primary basis for any informed decision-makings and prudent operations of forestry functions.
- ✘ There are as high as 43% of Government Reserved Forest (GRF) outside formal management purview.
- ✘ The coordination between the Department and other related agencies was found generally inadequate, which may impede smooth reporting and monitoring of activities.
- ✘ The forest in Bhutan is characterized by densely populated trees, which inherently exposes to risks of forest fires and poor habitat for big wildlife. Therefore, interventions such as carefully planned thinning programme are needed.
- ✘ The different Divisions under the Department of Forests and Park Services have their own independent set of information structure

and system. Thus the existing information system is scattered over different divisions and units, affecting real-time decision-making and effective delivery of services. It also exhibits lack of consistency, duplication, and existence of multiple channels of information disseminations.

- ✘ The forest fires are reportedly one of the main drivers of forest degradation in Bhutan. Incidences of forest fires are also more common around settlements indicating its causes to be generally man-made which beckons for requirement of extensive public awareness on its negative impact as well as of stricter enforcement and penalties. The Department also lacks reliable information on the incidences of forest fires to assist informed decision-making and appropriate interventions.
- ✘ The activities under watershed management are diverse with many stakeholders including National Environment Commission Secretariat as lead and regulatory agency and Watershed Management Division with responsibilities and activities spread across many agencies and users. In such complex network and intricacies in activities, a coherent and well coordinated approach is required to enhance accountability and effective delivery of services which was found to be inadequate.
- ✘ National Watershed Inventory Database is a fundamental input for preparation of management plans particularly for vulnerable and critical watersheds as well as for effective decision making. It transpired that such a database was in the process of preparation.

What RAA recommends?

Based on the review and resultant findings, the RAA offered certain recommendations with an attempt to address the identified deficiencies and weaknesses. Some of the recommendations provided are:

- ★ The appropriate authority should clearly designate the responsible agency to uphold the Constitutional responsibilities of maintaining sixty percent forest cover. The responsible agency so designated should institute specific reporting and monitoring requirements to monitor changes and uphold the wisdom of Constitution in perpetuity.
- ★ The Department should expedite development of the National Forest Inventory as it forms the fundamental inputs for informed decision-makings and prudent operations of forestry functions.

- ★ The Department should expedite preparation of formal management plans for those GRF which currently do not have one to ensure sustainable management of forests.
- ★ Proper mechanism of coordination and communication should be established between the related agencies to facilitate smooth flow of information and enhance effective delivery of services.
- ★ The Department may explore the prospect of forest thinning in areas where thinning may be necessary, particularly in forests designated for commercial timber harvesting and fire prone area.
- ★ The Department may initiate integration of information system which currently is being scattered over different divisions and units. Information integration would allow easy access and thus assist real-time decision-making, and also help to resolve duplication and inconsistencies in information.
- ★ The Department should also maintain updated database on incidences of forest fires around the country. The information would allow making appropriate interventions. There may also be a requirement of extensive public awareness on the negative impact of forest fires as it constitutes one of the main drivers of forest degradation in Bhutan.
- ★ The water resources development and management should be done in an integrated mode for long-term sustainability. Sustained flow of water of good quality depends on the integrity of the watershed. Therefore, it is paramount that institutional coordination and linkages mechanism should be promoted with clear line of communication and responsibilities established so as to have the required watershed management inventory in place.

Conclusion

The RAA attributed shortcomings in the operations of system to inadequate reporting and monitoring, lack of proper dissemination of information and resource-sharing, inadequate planning and coordination amongst various stakeholders. There were also several constraints, problems and weaknesses in the administrative arrangements and functioning of institutions involved in carrying out the responsibility of managing forests sustainably. Progress of some of the programs, like formulation of the National Forest Inventory, full inventory of watershed in the country are also severally affected by financial and human resource constraints.

