

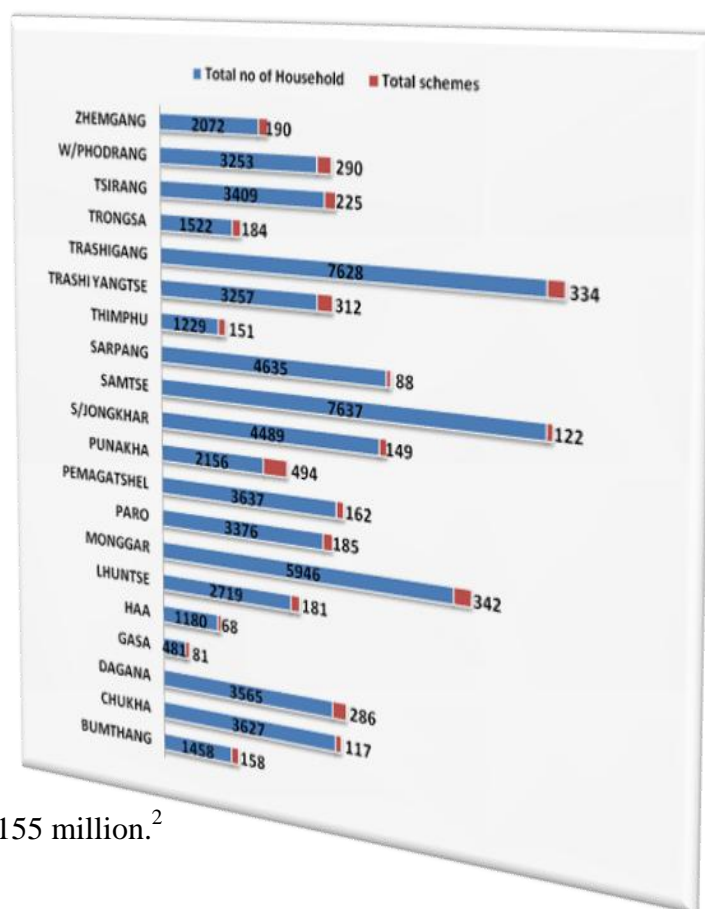
1

Executive Summary

BACKGROUND

Recognizing water to be a key element in the socio-economic development process of the country, the third five-year plan (1972-77) saw the gradual emergence of responsible water and sanitation sectors receiving advisory, financial and technological assistance from a number of external agencies. Till 1995 the Rural Water Supply and Sanitation (RWSS) schemes was supported and funded by external donors, then from 2005-06 Fiscal Year, the RGoB began to fund all RWSS scheme constructions except for institutional water & sanitation which was funded by United Nations International Children's Emergency Fund (UNICEF). RWSS schemes are categorized as New, Rehabilitation and Spring Protections. Bhutan indeed is blessed with a well preserved pristine environment that has provided and still continues to provide the bhutanese people with pure, naturally clean water.

During the 9th Five Year Plan (FYP), 727 new RWSS schemes, 516 rehabilitation works and 305 spring protections were planned with a budget estimate of Nu. 172.592 million.¹ At the end of the 9th FYP, 1,208 new RWSS schemes, 596 rehabilitation works and 1,067 spring protections were constructed, thus, constituting 166.16%, 115.50% and 349.84% increase respectively from the initial plan. The total cost for all RWSS during the 9th FYP was Nu. 1,035.155 million.²



¹ The amount represents only the material costs (Government/Donor cost).

² The amount represents the total execution costs including Government Cost, Donor Cost and Village Cost.

WHY AUDIT DRINKING WATER?

The Department of Public Health and Engineering (DPHE) under the Ministry of Health (MoH) with the programme and policy objective during the 9th Five Year Plan (FYP) aimed to improve the health of the rural population by reducing the incidence of water borne diseases and related diseases through the provision of safe drinking water and sanitation latrines. In doing so, 1,208 new RWSS, 596 rehabilitation works and 1,067 spring protections were constructed during the 9th FYP.

Bhutan is in an advantageous position over other countries in the region as sanitation is regarded as an important element in achieving Bhutan's goal of Gross National Happiness (GNH). It is also enshrined as an individual's right in the country's Constitution and is well supported with His Majesty's Royal Decree on Sanitation issued in 1992 declaring water and sanitation a basic right of the people.

His Majesty the Fourth King of Bhutan issued a royal edict in 1992 declaring water and sanitation a basic right of the people.

With the mandate to provide safe drinking water and supply to all rural areas in the country the RWSS Programme was started in 1974. In view of fact that the MoH was in an advantageous position to mobilize funds and accelerate its implementation by involving the health workers at the grassroots level, the programme was transferred to MoH from the Ministry of Works and Human Settlement (MoWHS) in 1998. Since then the RWSS programme has been the responsibility of the DPHE under the MoH. The Ministry received a generous allocation of total government expenditure which is 9% in the 9th FYP, which made it possible for the commendable water and sanitation infrastructure improvement efforts and the integration of health and hygiene education and promotion into the work of Basic Health Units (BHU).

The Royal Audit Authority (RAA) took up this assignment to audit the management of water supply and sanitation in Bhutan with a special focus on the RWSS activities carried out during 9th FYP to assess current situations and add value to the existing system by recommending measures for improvement in public water supply and sanitation management. This audit has been conducted as per

requirement under the Constitution of Bhutan and as mandated by the Audit Act, 2006. The audit was conducted with a view to ascertain whether the resources were being utilized economically, efficiently and effectively. It is also to see if the ultimate objectives of providing safe drinking water by constructing RWSS schemes were being achieved. In doing so, the RAA not only looked at “*what has been done*”, but also “*what has not been done*” to achieve the organizations’ ultimate objective.

The objectives of the audit were to:

- √ To ascertain the extent and adequacy of drinking water and sanitation coverage and facilities as well as allocation of resources;
- √ To ascertain and report whether resources have been utilized economically, effectively and efficiently; and
- √ To assess the benefits of safe drinking water and sanitation to the communities.

This audit assessed the existing situation of rural water supply scheme and sanitation in fourteen Dzongkhags and drinking water and sanitation management in six municipalities in the country mainly focusing on the prioritization, sufficiency, sanitation coverage and utilization of the allotted resources and benefits to the rural and urban lives within the scope. In doing so, the audit also looked at the existing RWSS institutional set up, capacity & linkages, roles, responsibilities and coordination among different stake holders.

**WHAT RAA
FOUND?**

The 9th FYP saw a major change in the planning process of the RWSS schemes. While the focus for the RWSS schemes remains the same to improve the coverage of water and sanitation facilities to rural population, the approach has been changed. The 9th FYP saw the RWSS programs were formulated based on the decentralization policy of the government. Though the Health Sector continued to provide technical assistance to the Geogs for all types of RWSS schemes, the plans were formulated by the Geogs based on their needs.

The situation of access to drinking water has improved considerably in the 9th FYP. The proportion of population without access to safe drinking water has declined from 22% in 2001 to 10% towards the end of the 9th FYP. There is significant increase in both water and sanitation coverage (91%) but the incidence of water borne diseases like diarrhoea and dysentery and water wash diseases like skin and eye infection still features among the top five diseases in Bhutan³.

Schemes	Planned	Achieved
New	727	1208
Rehabilitation	516	596
Spring Protection	305	1067

The Millennium Development Goal (MDG) target of reducing by half those without access to safe drinking water by 2015 has thus already been achieved. However, the actual functionality of the piped water supply schemes needs a thorough assessment.










While the RAA acknowledges the DPHE's achievement of physical targets by 185.47%, the program has suffered setbacks and weaknesses which could have been avoided or at the least minimized through proper and effective planning, survey and monitoring. Some of the major deficiencies observed by the RAA impeding the effective delivery of services to the community are summarized below:

³ Annual Health Bulletin, 2009

- ④ As many as 13 out of 109 RWSS schemes were found completely non-functional during site visits by audit. Many schemes were also found deteriorating fast;
- ④ It was observed that there was unbalanced distribution of RWSS schemes amongst Dzongkhags and within the Dzongkhags;
- ④ A total of 2,029 ad-hoc RWSS activities were undertaken during the 9th FYP resulting in a high deviation from the planned activities in terms of number and cost;
- ④ There were inconsistency during the planning and survey conducted for the construction of RWSS schemes. Surveys were not conducted at the right season. Implementers attributed this to inadequate time and resources;
- ④ The budget estimates prepared by the Geogs and Dzongkhag administrations were unrealistic;
- ④ Many RWSS schemes have been rendered non-functional due to various reasons. The data base maintained by the PHED shows that 26.46% of RWSS schemes are either with low functionality or are non-functional;
- ④ In most schemes compliance to the RWSS sector policy was found lacking;
- ④ Mandatory water quality testing was not done in many cases due to lack of equipment and manpower.
- ④ There was inadequate supervision and monitoring by the implementing agencies;
- ④ Sense of ownership of schemes amongst beneficiaries were found to be lacking;
- ④ Most Dzongkhags have not signed MoU with the beneficiaries;
- ④ Most places visited by the team did not have proper sanitation facilities. Rural sanitation is understood as having a mere access to a minimum facility of a pit latrine;
- ④ There was lack of proper coordination and formal communication amongst agencies involved in developmental activities;

**WHAT RAA
RECOMMENDS?**

Based on the review and findings the RAA developed a set of recommendations with an attempt to address the identified deficiencies, problems and weaknesses. Some of the pertinent recommendations are:

-  Proper planning, survey and prioritization should be carried out to ensure economy, efficiency and effectiveness in the constructions of RWSS schemes;
-  Detail studies should be conducted to establish the impact of RWSS schemes;
-  The PHED should develop a detailed guideline for facilitating proper and uniform application of criteria laid down in the RWSS Sector Policy;
-  National water quality standards require to be developed in close consultation with NEC or competent authorities to ensure that a standard is set for safe drinking water;
-  The Ministry should review the present system and develop mechanisms to ensure that the budget estimates are prepared appropriately capturing all the relevant costs;
-  In view of the importance of drinking water and the amount of resources being allocated, the Ministry should carry out timely monitoring and periodic physical inspections to ascertain the conditions of the schemes;
-  Water quality testing should be carried out at regular intervals to ensure the safety of the drinking water;
-  Dzongkhag-wise centralised inventory and Rural Water Supply & Sanitation Management Information System (RWSS-MIS) maintained by PHED of RWSS schemes needs to be updated accurately and regularly; and
-  The supply of water and sanitation facilities needs to be seen as an integrated package with other public health activities.