

## RAA seeks intervention from policy-makers and stakeholders

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Royal Audit Authority's (RAA) review of the Bhutan Schedule of Rates (BSR) and its application by government agencies revealed poor assessment of item rates of any construction works in absence of standard data management and data dissemination.

BSR is a tool to assist project cost estimations and is widely used in all government agencies.

According to RAA, although BSR should just be a reference to prepare work estimates in absence of other reliable basis, it is being widely used as an authoritative and benchmark document across all procuring agencies. "It undermines and impedes the economy, efficiency and effectiveness in executing public works."

It also pointed out numerous systemic problems, unclear strategies and objectives with consequential adverse impact on the cost of project, which impedes the achievement of value-for-money in constructions. "The practices currently being followed in preparing estimates, carrying out analysis of rates and regulating payments for variations provide considerable scope for abuse of the system and inflating project estimates and cost."

RAA stated that although audit reported on the systematic lapses to the government through specific report and annual audit reports, it never received any intervention from policy makers and other stakeholders. "Policy makers and other stakeholders should come up with policy interventions directed towards achieving value for money through efficient and effective computation and application of cost index and rate analysis."

### Issues

RAA observed inconsistent formulation of cost index, application of cost index not aligned with items of works, calculation of cost index not aligned to distance from the base town, inconsistent use of BSR for application of cost indices and flaws and ambiguity in the derivation of weightage of materials.

There was also no check and control by appropriate or designated authority, which allowed government agencies to resort to varying decisions in formulation of cost indices and officials responsible for calculation and application of cost indices either lacked clarity in the procedures provided in the BSR or not competent enough to appropriately interpret the laid down procedures in the BSR.

The calculation and application of cost indices are not aligned with the components specified in the labour and material coefficients (LMC) as well as sample cost indices table provided in the BSR against specific items of works of the BSR.

BSR requires agencies to determine the cost index based on the procedures provided for the calculation of cost indices to arrive at the actual cost of a particular project at any location other than the base towns.

“There are no consistent approaches in application of cost index in different agencies despite the BSR stipulates procedures for calculation of cost index. The cost index is applied to base rates of Phuentsholing, Samdrup Jongkhar, Gelephu and Thimphu determined in the BSR to cover the cost of making the items available at places of constructions,” RAA stated.

BSR was revised and updated in 2015 and 2017 but there was inconsistency in the use of BSR as well as application of cost indices. “There is no system of validation in the use of BSR and application of cost indices by central authorities to ensure consistency and uniformity in the adoption of BSR for the application of cost indices,” RAA found.

The RAA noted inconsistent approaches in use of weightage of materials for calculation of cost index despite stipulated procedures and requirement for the calculation of weightage using rates of items of the nearest base towns for different kinds of projects. “The BSR categorically stipulated that weightage differs for different kinds of projects, thus use of weightage given in the sample may have cost implications in the preparation of cost estimates of the project or valuation of variations and additional works.”

The labour cost is the major component of the cost of the project. While the BSR has provided weightage for the labour cost in the sample provided for calculation of cost indices, some dzongkhags have not considered and provided weightage for labour cost for calculation of cost indices inflating the cost indices to the extent of weightage for labour cost represented in the total cost of the project.

RAA also stated that BSR incorporated the hire charges for plant and machinery based on the built-up rates provided by the Construction Development Corporation Limited, (CDCL) and Natural Resources Development Corporation Ltd (NRDCL) rates for aggregates stones although contractors are allowed to operate stone quarry for the contract works.

“The CDCL built up rates are rates taking into account CDCL’s direct cost, depreciations, operating cost, overhead cost administrative expenses and contingencies of the CDCL. Thus, the CDCL hiring rates are applicable if the CDCL plants and machinery are hired and deployed for the related works,” RAA stated.

It observed that there were no consistent approaches in the obtaining of rates of materials. For the calculation of cost indices, government agencies have use rates of aggregates stones obtained during annual quotation or tenders, base rates of BSR, NRDCL rates and rates provided by the contractors.

The government agencies use rates for calculation of cost indices obtained under various methodology even on the stipulation of conditions for allowing operation of stone quarry at worksites in the tender documents. “In the absence of standard in obtaining rates of material from the market and use of NRDCL rates, varying practices prevailed in the obtaining rates of materials and application in the calculation of cost indices.”

Although BSR requires to exercise due diligence in inquiring the prices and compare with the market prices, the procuring agencies generally do not conduct market surveys but rates at the project locations are either based on annual quotations (sometimes on single-quoted rates) or rates of the single supplier prevailing in the market of the locations.

“This had defeated the intent of public procurement in obtaining the competitive price and had resulted in government agencies paying exorbitant prices,” RAA stated. “It is possible that in absence of any check and control in the calculation and application of cost indices, preparation of cost estimates for projects as well as valuation of cost for additional and deviated works may tantamount to inflation of cost of project works with undue benefit to the contractors.”

RAA also stated that this may also result in engagement of unethical processes and practices siphoning the government scarce resources. “There needs to be uniform procedures along with standard format which can be consistently followed in carrying out of rate analysis.”

## **Recommendations**

The government needs to establish a robust system, procedures and standards to ensure consistency and uniformity in the calculation and application of cost indices and rate analysis.

RAA stated that the Ministry of Works and Human Settlement (MoWHS) as the nodal technical authority of the government and custodian of the BSR should institute standard procedures for working out appropriate cost indices for various project locations from the base towns to depict true cost for the locations of construction sites.

“The ministry should require the procuring agencies to strictly ensure conformance to procedures for calculation of cost indices and rate analysis outlined in the BSR as to ensure consistency and uniformity in the preparation of reliable cost estimate of the projects,” it stated.

It also stated that BSR must be robust, comprehensive and reflective of all items of works required for civil and road infrastructures including market prices to provide reliable and realistic preparation of estimated cost for all government projects.

BSR should also incorporate all aspect of expected new technologies like ZeoCrete technology that is being adopted for road works to prevent flawed and inflated preparation of estimates by all procuring agencies.

MoWHS should ensure mandatory and appropriate use of the published BSR in the estimation of project cost and ensure that most recent BSR is applied uniformly by all procuring agencies.

It should specify effective dates for implementation of revised BSR, make it mandatory to apply new BSR from the effective date and ensure that newly published BSR is easily accessible to all agencies.