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Report Summary

**WHY AUDIT
INDUSTRIES?**

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”. The Royal Audit Authority is, therefore, required to ascertain and report as to whether Government agencies adhere to the standards of economy and efficiency in their operations and achieve the intended objectives for which they are established and resources are allocated to them. Conservation of Environment is one of the pillars of the Gross National Happiness, the development philosophy of Bhutan. The Royal Government has always emphasized that economic development must not take place at the expense of our natural resources.

Industrialization is taking place at a rapid pace in Bhutan. For instance, the government has already developed an industrial estate in Pasakha and more are in the pipeline. Environmental issues like air pollution, water pollution, waste generation, land degradation, etc are inevitable consequences of industrialisation. However, with systematic and best practices in place, the negative effects can be minimized to the desired level. The Royal Audit Authority accordingly, conducted the audit of operations of industries with an environmental perspective to ascertain the compliances of environmental requirements and visible impacts and other ramifications of non-compliances of environmental norms by the industries.

The Royal Audit Authority took up the study on New Industrial Estate of Pasakha, Bhutan Carbide and Chemicals Ltd (BCCL) and Bhutan

Ferro Alloys Ltd (BFAL) at Pasakha, Penden Cement Authority Ltd (PCAL) and Lhaki Cement at Gomtu.

The audit was conducted with the following objectives;

- To ascertain whether the industries complied with the environmental standards set by the National Environment Commission (NEC);
- To ascertain the adequacy of existing monitoring mechanism of environmental compliances;
- To ascertain whether the waste management system in the industries is adequate and appropriate;
- To ascertain the visible impacts of non-compliances of environmental norms; and
- To review the system of occupational health and safety of workers in the industries.

**WHAT RAA
FOUND?**

The RAA came across certain good practices and some noteworthy achievements as presented hereunder:

- ✓ Bhutan became party to Vienna Convention (1985) and Montreal Protocol (1987) in August 2004 and under this treaty Bhutan is obligated to phase out Ozone Depleting Substances (ODS) by the year 2010. Good progress in this direction has been made indicating that the industries would be able to phase out the ODS by 2010;
- ✓ The NECS, though constrained by limited man power take annual monitoring visits to industries and were fairly able to create environmental awareness amongst industries;
- ✓ Industries are providing employments to large numbers of both national and non-national workers. It was found that, generally the villagers have economically benefited from industries through employment; and

- ✓ Large scale industries especially, BCCL, BFAL and PCAL were generally aware of the environmental concerns and were found to adhere to most of the terms and conditions of the Environmental Clearance.

Notwithstanding the aforementioned good practices and achievements, the Royal Audit Authority also noted some deficiencies and weaknesses, as briefly highlighted below:

- ✗ There is no clarity of roles and responsibilities between NECS and MoEA (competent authority) which could lead to duplication of efforts and blurring accountability;
- ✗ Pollution abatement devices were either not found installed in many industries or not utilized optimally emitting beyond the standards set by NEC;
- ✗ Non-compliance of clauses contained in the environmental clearance was also observed;
- ✗ There is no standardized and regular approach in implementing environmental awareness programmes amongst Industries;
- ✗ Due to the collective emissions or discharges there is no one point source responsible for the growing environmental impacts. Some of the issues noted were disposal of solid and chemical waste, servicing of vehicles in the river, open transportation of raw materials etc.;
- ✗ Workers were found without their protective gears though safety and risk information were displayed in and around almost all the factories;
- ✗ The only school in Pasakha was located in the close vicinity of the new industrial estate posing risks on the health of school children and teachers and other employees; and
- ✗ There were no budgetary provisions for environmental management in the financial statements of the companies.

The study indicated that lack of policy framework, weak implementation of Rules and systematic monitoring by environmental agencies were the

principal causes for industries violating the environmental norms and standards.

WHAT RECOMMENDS	RAA ?
	<p>Based on the findings of the study, the RAA has made certain recommendations that could aid government and agencies (both regulatory and implementing) in addressing the deficiencies and weaknesses. The report also provides some of the best environmental management practices. Recommendations contained in the report include the following:</p> <ul style="list-style-type: none">✘ Government needs to develop Acts on air quality and appropriate rules and regulations;✘ The roles and responsibilities of NECS and MoEA (competent authority) should be defined for clarity and better accountability;✘ NECS and the competent authority (MoEA) should develop a clear strategy for air quality monitoring specifying proper timeline besides the surprise checks being conducted at present;✘ Considering the vast mandate, the competent authorities (MoEA) need to study the adequacy and augment their human resource;✘ The terms and conditions contained in the Environmental Clearance need to be enforced strictly;✘ Public consultation needs to be enhanced before any project is proposed;✘ Environmental Impact Assessment needs to be carried out more thoroughly and scientifically; and✘ Industrial Infrastructure Development Division of MoEA and NECS should work in close co-ordination for developing any industrial estate in Bhutan.