

STUDY REPORT

Regional Plan and Status of Science Education in Schools in North Eastern Region (NER)



North Eastern Development Finance Corporation Ltd. (NEDFi)

**With Academic Inputs from
Indian Institute of Technology Guwahati (IITG)
&
Support from
Homi Bhabha Centre for Science Education, TIFR, Mumbai**

OCTOBER 2017

TITLE OF THE STUDY

REGIONAL PLAN AND STATUS OF SCIENCE EDUCATION IN SCHOOLS IN NORTH EASTERN REGION (NER)

EXECUTIVE SUMMARY

Introduction

Science education plays an important role in developing the human resources of any country. Hence, policy-makers and educationalists across the world have been devoting attention to the status of science education. In India, the teaching-learning of science and mathematics occupies a special place in school education. The status of science education in schools of the North Eastern (NE) Region has been a matter of considerable interest to the stakeholders. Accordingly, the 17th Executive Committee Meeting of the Techno-Economic Development Fund (TEDF) had discussed and approved a study on ‘**Regional Plan and Status of Science Education in Schools in North Eastern Region**’.

The above study has been conducted in 2016-17 by the Advisory & Consultancy (A&C) Division of North Eastern Development Finance Corporation Ltd. (NEDFi) with the support of Indian Institute of Technology Guwahati. In addition, the results of the present study have been benchmarked against a similar exercise conducted in April 2017, covering ten schools located in Maharashtra. The Regional Plan has been developed in this report based upon the findings of both these studies.

Science Education in India

In the year 1976, the subject of ‘education including technical education’ was placed in the Concurrent List of the Constitution of India. Now, both the Government of India and State Governments have powers over this subject, with the former having an overriding authority. At present, science education in India is guided by the National Curriculum Framework (NCF) of 2005. This framework intends to give shape to the national system of education as envisioned in the National Policy on Education, 1986.

Science Education in North Eastern Region

Despite many developmental challenges, the North Eastern states have reported notable achievements in the field of education and literacy. Here, the educational system at the school level is organized on the all-India pattern. There are eight years of elementary education, including five years of lower primary education and three years in the upper primary classes. This is followed by four years of secondary education, of which two years - Classes IX and X - comprises the high school or secondary phase. After Class X, science education is an option for the student to exercise. The Education Departments of North Eastern states follow the guidelines of National Curriculum Framework (NCF) of 2005 in framing the syllabus of different subjects, including science and mathematics. Most states have a State Board (Board of Secondary Education) to regulate education at the secondary level. In Arunachal Pradesh and Sikkim, no such board exists and secondary education is governed by the Central Board of Secondary Education.

Objectives & Terms of Reference of the Present Study

The objective of the present study is to formulate a Regional Plan for the improvement of the teaching-learning of science and mathematics at the school level in the states of North Eastern India, based on an assessment of its present status.

The following are the Terms of Reference of the present study as approved by the Executive Committee of TEDF.

1. Assessing the present status of Science Education at the School Level (Upper Primary & High School levels covering Class VI-X) in the eight states of the North Eastern Region;
2. Framing the Vision and Goals for the Regional Plan in Consultation with Stakeholders (Students, Teachers, School Administration, Guardians, State Governments, NEC etc.);
3. Finalizing Strategies for the Regional Plan with implementable Action Sub-plan to achieve the above Goals;
4. Determining the Implementation Sub-Plan in terms of work components, resources, responsibilities, time frames etc.; and
5. Evolving a system for mechanism of Monitoring & Evaluation Sub-Plan in the above connection.

The present study was carried out to cover the above Terms of Reference.

About this Report

This report covers the work carried out under the present assignment as per the above mentioned Terms of Reference. The report has been organized into different sections based on the terms of the assignment. These sections have been supplemented by material annexed to the report as Appendices.