

NBRO celebrates its Silver Jubilee

Towards a safer construction industry

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The National Building Research Organization (NBRO) formed in 1984, became a pioneering research and development organization in the country specializing in various spheres of technology. After 25 years NBRO now stands as one of the leading multidisciplinary institutions in the country.

This institution was initially formed under the Local Government Ministry, subsequently brought under the Policy Planning and Plan Implementation Ministry and later placed under the Housing and Construction Ministry covering the requirements of housing sector which was then a national priority. During that period NBRO developed solutions for cost effective housing, structural engineering research, and housing in problematic soil areas. NBRO kept expanding their fields of expertise and consequently developed their capacity on landslide studies. Now NBRO is under the Disaster Management and Human Rights Ministry catering to new areas of Disaster Management, Disaster Risk Reduction and Landslide Mitigation.

The beginning

During this 25-year period, NBRO has stayed ahead of other institutions by developing a multidisciplinary human and physical assets base. NBRO had two laboratories related to building industry; building materials laboratory and soil or geotechnical engineering laboratory.

These laboratories gave NBRO a unique identity of being capable of testing both soil and building materials.

Twenty five years ago, NBRO was the only institution that had the capacity in investigating soils or problematic ground conditions.

Formerly the soils and materials laboratories belonged to the Buildings Department and these facilities were used by the Department to conduct investigations on building on problematic soils and on construction materials used in their construction work. As this became inadequate with soil investigations for complex construction becoming common and most of the consultants requesting soil and material investigation reports, a market demand was created naturally that the Department could not ignore. Also, outside work could not be done within the Buildings Department. In 1984, these became push factors for soil and building material laboratories to break off from their original 'owners', the Buildings Department. The pull factor being that at that time, the Government was looking for an independent institution to provide support services to implement the million housing program. After forming NBRO, the Geotechnical Engineering Division and Building Materials Division

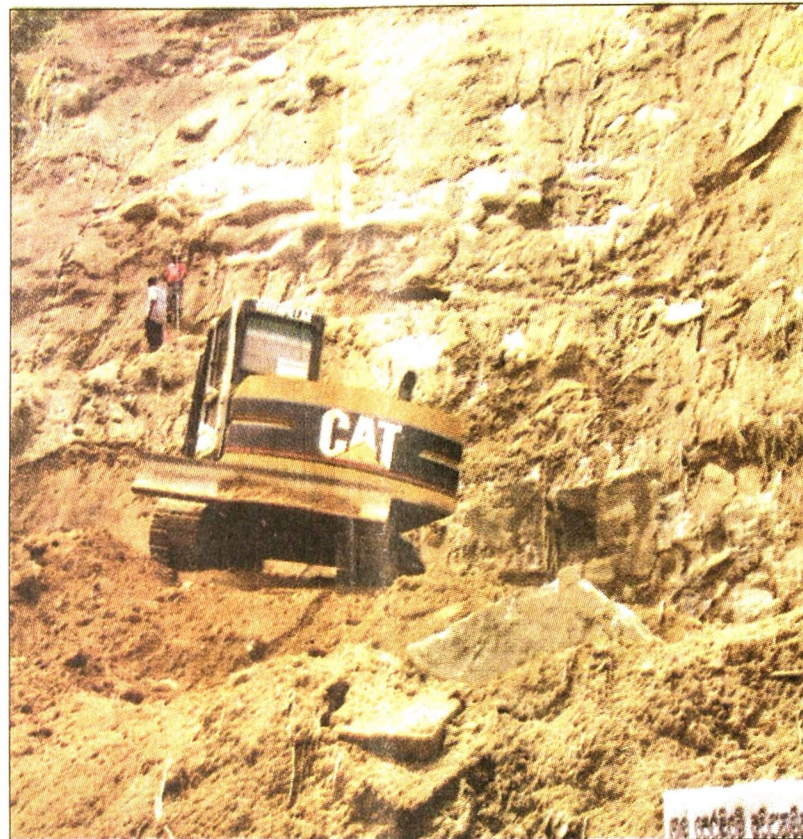
provided services such as lab investigation of soils and building materials to such programs.

In 1984, Structural Engineering Research Centre and Project Management Division were added when forming the organization.

The Million Housing Program lacked proper for project management and this was provided by the NBRO at that time. Due to the highlighted Government focus at that time, NBRO got the highest level of attention. NBRO was the main focal point in providing project management services to the Million Housing Program.

To meet other service requirements, the Human Settlements Division and the Environmental Division were created and these supported the process of project management and monitoring.

In 1986, a large number of deaths were reported due to landslides in the hilly areas. This attracted the attention at the highest level. NBRO had been newly established and at this juncture, NBRO was the only institution that was capable of geotechnical and soil related work. For these reasons, the Government decided to develop the capacity of NBRO in the field of landslides and the



Peradeniya town landslide mitigation was started by NBRO. Pictures by Pathmasekara Nissanka

UNDP stepped forward to help. The initial landslide investigations were carried out by the Geotechnical Engineering Division (GED) of NBRO and at that time, they highlighted the need for further advancement in this newly emerging field. Later, the Landslide, Studies and Services Division was created.

With the establishment of the NBRO and subsequent developments, two diversified areas appear to coincide, the work related to construction industry and housing sector merging with work related to landslides or geo-technical matters. In 1988, UNDP developed a project on landslide risk reduction in hilly areas. This project was conducted with the overall assistance of a Chief Technical Advisor (CTA). The project initially tries to understand the landslide occurring phe-

nomena and the possible remedial measures that can be adopted to reduce the risk on the affected population.

In parallel to the housing program, NBRO seemed to have reached to its climax at that time and most of the value addition programs were carried out based on the research work of NBRO. Most of this research work has gone unnoticed since they were used in policy making by the decision makers. Hence, the access to these reports was very limited to the public. Some of these research work included building standards for economically and differently abled population and condition of workers' dwellings in the export processing zones. NBRO embarked on a program to introduce cost effective building materials.

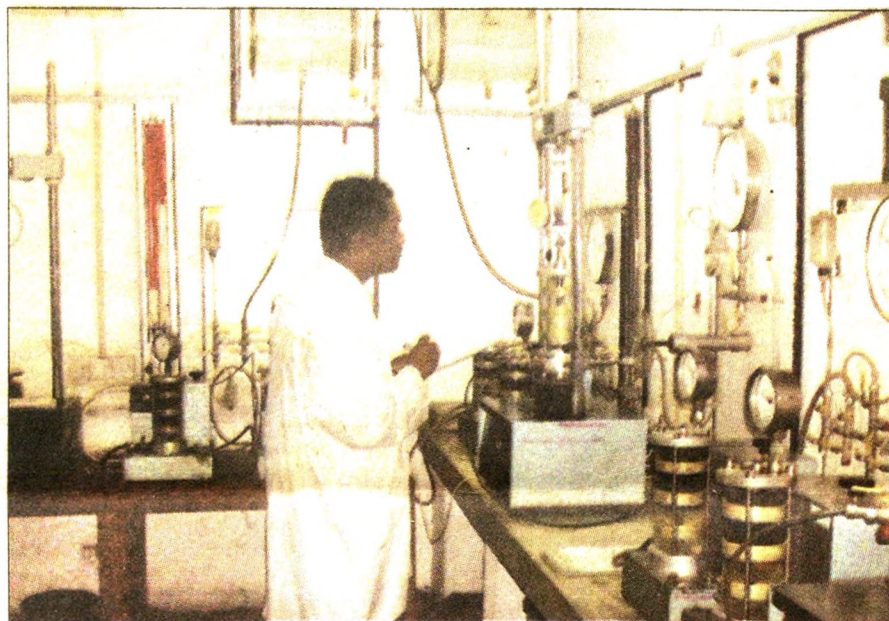
Numerous research work was carried out by the Building Materials Division on micro concrete tiles, rice husk ash cement and dolomite lime. During this period, Structural Engineering Research Centre and Project Management Division (SERC and PMD) assisted various development projects in the country specially the Gam Udawa program. In this program SERC and PMD provided the technical inputs in engineering research, project management and overall project monitoring work. NBRO became one of the silent partners in the Gam Udawa program. NBRO was one of the organizations that could develop through the process and divert from the mainstream of housing and

construction at that time. During the past 25 years, NBRO diversified from mainstream of housing and construction to environmental management, landslide disaster risk reduction and now disaster risk reduction through safer environment.

The landslide studies conducted during the past 20 years have created some important developments in the organization, and important land mark being the establishment of the 'Landslides Services and Studies Division' (LSSD) of the NBRO.

This was carried out in 1993 by combining all the staff members working in the Landslide Hazard Mapping Project (LHMP) to form the LSSD.

The landslide studies project developed by the Chief Technical advisor of the NBRO/UNDP led to the Landslide Hazard Mapping Project. The study team noted the importance of establishing a system to map the landslide prone area of the country. The team highlighted this issue of the importance in developing mapping methodology. Today these maps are effectively used in development planning, project approval, landslide risk reduction and mitigation projects.



Geo-technical laboratory of NBRO