



ANNUAL REPORT 2024

NATIONAL BUILDING RESEARCH
ORGANISATION

MINISTRY OF DEFENCE



The Annual Report 2024 was approved by the NBRO Interim Management Committee (IMC) on
its meeting held on 24th February 2025

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தேசிய கட்டிட ஆராய்ச்சி நிறுவனம்
NATIONAL BUILDING RESEARCH ORGANISATION

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ABOUT NBRO

National Building Research Organisation (NBRO) was established following the approval of the Cabinet of Ministers on 4th March 1984. Today, after over 40 years in existence, the NBRO stands out as a leading R & D institution and a reputed technical service provider.

Roles of the Organization extend from (i) being the focal point for landslide disaster risk management and conducting related research and development. (ii) Encouraging research and development into appropriate technology for housing & construction sector. (iii) Promoting construction capable of withstanding the impact of natural disasters and providing technical guidance for building resilience and (iv) Providing technical consultancy and testing services in areas of institutional expertise.

NBRO is a multi-disciplinary institution, having six technical divisions namely, Building Materials Research & Testing Division, Environmental Studies & Services Division, Geotechnical Engineering & Testing Division, Human Settlements Planning & Training Division, Landslide Research & Risk Management Division and Structural Engineering Research & Project Management Division, supported by the Administration Division, Finance Division, ICT & Program Unit and Internal Audit Unit.

NBRO conducts research related to its scope of work and also as request by the industry. Being the national focal point for landslide risk management in Sri Lanka, NBRO carries out activities of identification of slope instability, assessment of associated risk, mapping of hazardous zones, monitoring of ground movement in landslides and rainfall in landslide-





NBRO as a dutiful service provider together with technical experts from various disciplines is always geared up to provide suitable solutions to maintain and improve the quality of life of all citizens.

prone areas, issuance of landslide early warning, mitigation of landslides and unstable slopes and building of awareness of landslide hazard. In addition, NBRO issues Landslide Risk Assessment Reports (LRAR) for all construction and development activities in landslide-prone areas in the country as a unique service. General Treasury provides annual allocations for research and makes provisions for landslide risk management projects implemented by NBRO.

NBRO as a self-funded institution meets its recurrent expenditure, by earning revenue by the provision of laboratory testing and technical consultancy services. With its ISO accredited and best-equipped laboratories NBRO performs geotechnical engineering investigations and testing of building materials for suitability in construction, testing of water, wastewater, soil, sediment, air and

stack emissions; assessment of building condition & structural integrity, and various other technical consultancy services that bring in NBRO its much needed revenue.

NBRO as a dutiful service provider together with technical experts from various disciplines is always geared up to provide solutions to maintain and improve the quality of life of all citizens.

WHO WE ARE

OUR VISION

A nation living in a safer, sustainable & disaster resilient built environment

OUR MISSION

Reduce disaster risks through building resilience to ensure safer & sustainable built environment for all

OUR GOALS

- △ **Goal 1:** Achieve technical excellence in disaster risk assessment in related disciplines & subject areas
- △ **Goal 2:** Achieve legal status, statutory powers and the recognition in DRR in related disciplines and subject areas.
- △ **Goal 3:** Be an apex national entity in providing quality accredited testing & technical consultancy services in environmental, geotechnical engineering, building materials, resilient built environmental planning and resilient construction technology.
- △ **Goal 4:** Achieve excellence in Research and Development in DRR and in disaster resilient development technology & innovation.
- △ **Goal 5:** Establish national and regional cooperation and connectivity to promote and sustain DRR and resilient development science and technology
- △ **Goal 6:** Strengthen institutional capacity for effective disaster risk reduction in related disciplines & subject areas
- △ **Goal 7:** Achieve financial sustainability of NBRO for effective performance in DRR.
- △ **Goal 8:** Become the centre of excellence for landslide disaster risk management as the national focal point.
- △ **Goal 9:** Build disaster resilience through Climate Smart early warning technology
- △ **Goal 10:** Build disaster resilience through ecosystem-based risk mitigation technology
- △ **Goal 11:** Build disaster resilience through community science-based risk mitigation

CHAIRMAN'S REVIEW

Air Vice Marshal Sampath Thuyacontha (Retd)

WWV, RWP and two Bars, RSP and Bar, USP,
MMSc (Strat Stu-China), MSc (Def Stu) in Mgt,
MSc (Def & Strat Stu), fndu (China), psc

Chairman

Interim Management Committee,
National Building Research Organisation
(Secretary / Ministry of Defence)

NBRO continued to stand as a premier research and development institution, playing a pivotal role in disaster risk management and enhancing the resilience of the built environment.



I am honoured to present the Chairman's Review for the Annual Report and Consolidated Financial Statements of the National Building Research Organisation (NBRO) for the year ending 31st December 2024, as the Chairman of the Interim Management Committee of NBRO and also as the Secretary to the line ministry.

NBRO continued to stand as a premier research and development institution, playing a pivotal role in disaster risk management and enhancing the resilience of the built environment. This report highlights NBRO's technical capabilities, financial sustainability and the significant steps taken in achieving its assigned duties and functions during the 2024.

As a line agency under the Ministry of Defence, NBRO plays a predominant role in disaster management with regard to landslide risk management in the country, while meeting related sustainable development goals and working within the guidelines of Sendai Framework of Actions.

During the year 2024, NBRO as the national focal point for landslide risk management performed well across the diversified subject areas of landslide hazard identification, zonation mapping, vulnerability assessment, awareness creation, issuance of early warnings and structural and non-structural mitigation that are commonly known. The issuance of Landslide Risk Assessment Reports prior to any development activity remains a critical step in minimizing damages caused by unplanned human interventions in landslide-prone areas.

NBRO's intervention extends beyond landslides risk management. Major infrastructure development projects / programs are being facilitated by providing geotechnical investigations, foundation engineering and designs. Issuing condition reports of buildings, especially to buildings damaged or needing retrofitting and improved structural integrity is a unique service offered by NBRO. In addition, testing the quality of building materials and monitoring adherence to environmental quality standards in air quality, water quality and noise levels are the NBRO services mostly sought.

NBRO has actively pursued strategic grant opportunities through collaborations with foreign donors and development agencies. Reduction of Landslide Vulnerability by Mitigation Measures Project (RLVMMP) is an ongoing mega project secured by NBRO with the financial contributions from the Asian Infrastructure Investment Bank (AIIB) and the Government of Sri Lanka (GOSL). In 2024, this project continued to make significant progress, with numerous landslide mitigation measures successfully implemented. Efforts to stabilize unstable slopes around schools, hospitals, and along railway and road networks in landslide-prone areas have been underway. The project is on track and is now expected to be completed by 2026, further

enhancing the safety and resilience of communities in landslide vulnerable regions.

NBRO made a strong endeavour to collaborate in the disaster management field with leading local and foreign universities and institutions. NBRO partnerships with renowned institutions such as JICA, ICL, USGS, UN agencies, local and international universities and the World Bank continued to yield fruitful results in research, development, and capacity building. These collaborations have not only enhanced NBRO's technical capabilities but also strengthened its ability to address complex disaster scenarios.

NBRO's commitment to financial sustainability remained unwavering in 2024. Through self-generated income from consultancy and testing services, NBRO continued to reinvest in critical areas such as staff training, state-of-the-art equipment and innovative research initiatives.

None of these achievements would have been possible without the unwavering dedication of the NBRO team. I extend my gratitude to Director General Eng. (Dr.) Asiri Karunawardena and his team for their tireless efforts and commitment to excellence. Their hard work continues to drive NBRO forward, ensuring that NBRO remain at the forefront of disaster risk management and resilience building.

I would also like to express my sincere appreciation to His Excellency the President and the Hon. Deputy Minister of Defence for their visionary leadership and unwavering support. My thanks also go to the members of the Interim Management Committee (IMC) for their guidance and collaboration, which have been instrumental in navigating challenges and achieving our goals.

In addition, I express my thanks to the officials of the Disaster Management Division of my Ministry and our stakeholders for their continued confidence on NBRO.

As we look to the future, NBRO remains committed to its mission of building a safer and more resilient Sri Lanka. We recognize the need to adapt to an increasingly complex and challenging environment and we are dedicated for nurturing a culture of innovation to address emerging disaster risks. By strengthening our ties with stakeholders, including the Ministry of Defence, line institutions and local communities, we aim to create a safer and more sustainable future for all.

Air Vice Marshal Sampath Thuyacontha (Retd)

WV, RWP and two Bars, RSP and Bar, USP, MMSc (Strat Stu- China),
MSc (Def Stu) in Mgt, MSc (Def & Strat Stu), fndu (China), psc

Chairman

Interim Management Committee,

National Building Research Organisation

(Secretary / Ministry of Defence)

EXECUTIVE REPORT

Eng. (Dr.) Asiri Karunawardena
Director General

Over the years, the NBRO has expanded its scope of work, embraced newer technologies, and developed remarkable adaptability.



I am pleased to present the Annual Report of the National Building Research Organisation (NBRO) for the fiscal year ended 31st December 2024, together with Consolidated Financial Statements. The year 2024 is an important milestone where NBRO is celebrating its 40th year anniversary in a newly built 5 storied building that has been built using the inhouse capacity.

During this four decades period, NBRO had been operated under various ministries, frequently transitioning between line ministries and this situation necessitated frequent shifts in focus and roles, which NBRO turned into its advantage. Despite numerous challenges, NBRO has consistently maintained its position as a leading public enterprise, delivering exceptional technological and financial performance while ensuring institutional stability by resilience, adaptability, and commitment.

Over the years, the organization has expanded its scope of work, embraced newer technologies, and developed remarkable adaptability. The NBRO was designated as the mandated institution for landslide-

related studies and services, marking its entry into the field of Disaster Management. The organization's mandate further broadened in 2007 when it was affiliated with the Ministry of Disaster Management. Today, NBRO stands as a multidisciplinary public entity with a reputation for excellence in: (1) Landslide disaster management and related research and development as the national focal point. (2) Research and development for appropriate technologies in housing and construction sectors. (3) Promoting and providing guidelines for building resilience to natural disasters. (4) Providing technical consultancy services in areas of corporate expertise.

Operational and Financial Performance

NBRO sustains its operations and recurrent expenditures primarily through revenue generated from consultancy and laboratory testing services provided to both state and private sectors. This self-earned revenue constitutes a significant portion of NBRO's financial resources, covering staff salaries and most institutional expenses.

In 2024, NBRO recorded a consolidated turnover of LKR 825.26 million, demonstrating resilience in a highly competitive market for laboratory testing and consultancy services. This represents an impressive 26% growth in revenue compared to the previous year, highlighting NBRO's financial stability and operational efficiency. Strategic efforts resulted in a net profit of LKR 97.16 million, excluding non-exchange revenue profits of LKR 137.17 million.

Role as the National Focal Point in Landslide Risk Management

NBRO continues to fulfil its crucial role as the national focal institution for landslide risk management with key responsibilities include hazard zonation mapping,

issuing landslide early warnings, implementing mitigation measures, facilitating resettlement, and providing policy interventions. Issuance of Landslide Risk Assessment Reports prior to any development activities in landslide-prone areas, which has now become a prerequisite for building permits issued by local authorities is a significant achievement in minimizing life losses and property damages caused by non-engineered and haphazard human activities in landslide prone districts.

In 2024, NBRO responded to numerous landslide and associated incidents such as unstable slope failures, cutting and retaining wall failures, and rock falls. These incidents were particularly prevalent from April to May and September to December, affecting districts such as Badulla, Matara, and Ratnapura. Minor events were also reported in Kandy, Kegalle, Nuwara Eliya, Matale, Kalutara, and Galle. NBRO's pre-assigned roles such as monitoring, issuing early warnings, conducting timely investigations, and implementing corrective measures were diligently executed to mitigate the impact of these incidents.

As far as the landslide mitigation interventions are concerned, AILB-assisted Reduction of Landslide Vulnerability by Mitigation Measures Project is the first landslide mega project NBRO has undertaken to implement since 2019. The project focuses on stabilizing unstable slopes at 128 locations near schools, hospitals, and along railways and roads in landslide-prone areas, expecting completed during 2025-2026. By the end of 2024, mitigation efforts at 59 critical landslide sites (Phase I - 24 sites, Phase II - 35 sites) have been completed, showcasing NBRO's effectiveness in implementing vital risk reduction measures.

Mitigation works are currently in progress at several other key locations, including Meegahatenna

Hospital, Haththota Amuna Vidyarthi Model Primary School in Matale, and Udalamaththa Maha Vidyalaya, under treasury funding to enhance infrastructure resilience. Additionally, the unstable slope segment at Karadagolla in the Badulla District has been stabilized using urgent and temporary countermeasures until permanent mitigation measures are implemented. NBRO recognizes the importance of issuing early warning in landslide disaster management. The Landslide Early Warning Centre (EWC) at NBRO's Head Office plays a crucial role in issuing timely warnings and evacuation orders during extreme weather events, in collaboration with the Disaster Management Centre (DMC). In 2024, the EWC was upgraded with new equipment and relocated to a new facility. Operating round the clock, the EWC monitors conditions through an extensive network of over 330 automated rain gauges strategically installed in catchment and landslide-vulnerable areas.



Nursing Training School Teaching Hospital, Kandy

Launching the Child Centred Landslide Disaster Risk Reduction (CCDRR) Program in collaboration with the Ministry of Education was a landmark achievement in 2024 which focuses on empowering school children in landslide-prone areas with knowledge and skills for disaster preparedness. 17 schools have been selected for this program in 2024 that include hazard identification, disaster risk education, and the installation of rain gauges for rainfall monitoring.

Other Technical Interventions

NBRO has embraced advanced technologies, including the Internet of Things (IoT), to establish a continuous ambient air quality monitoring network across Sri Lanka. Data collected from this network is updated daily on the NBRO website, providing the public with access to critical air quality information.

Research and development needs are often identified convening an annual industry consultation with stakeholders to identify pressing research needs within the industry. This collaborative effort ensures that NBRO's R&D program remains responsive to the evolving demands of the industry sector, facilitating the integration of industry insights into research work. NBRO hosts its Annual Research Symposium, serving as a platform to showcase the outcomes of research conducted by NBRO and its collaborative efforts with local and international stakeholders and publish outcomes as symposium proceedings. The 14th Annual Research Symposium is planned to be held on 25th Feb 2025 at Colombo.

Assessment of structural stability of state-owned public buildings and other high occupancy buildings commonly used by the general public is a decisive step taken by NBRO towards minimizing the impacts of building collapses due to structural failures and various other reasons. NBRO issues technical/ structural assessment report for buildings and make recommendations inclusive of improvements to structural integrity and defect rectifications.

Issuance of Geotechnical Clearance by assessing possible adverse impacts to adjacent built environment due to deep excavations for Highrise buildings is one of the significant regulatory measures introduced by NBRO under the Planning & Development Regulations of Urban Development

Authority (UDA). The impacts of a particular proposed development to adjacent properties and surrounding built environment especially during the construction of the substructure of the building is thoroughly assessed during this process.

NBRO's unwavering commitment to ensuring the quality and timely delivery of technical consultancy and testing work has been instrumental in maintaining its competitive advantage. NBRO upholds stringent quality standards by maintaining ISO 17025 accreditation across all three NBRO laboratories now located in the new building. This accreditation serves as evidence to NBRO's dedication to quality assurance and highlights its adherence to internationally recognized standards.

Technology Partnerships

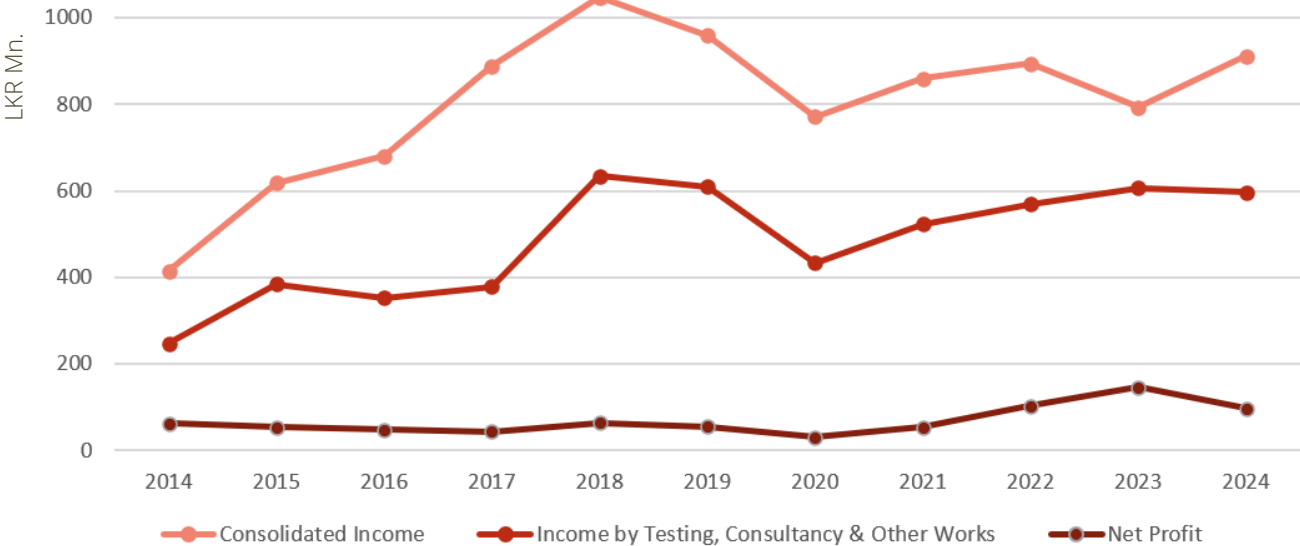
International agencies and institutions often extend their technical assistance to NBRO. In the year 2024, Japan International Cooperation Agency (JICA), the World Bank, and Asian Infrastructure Investment Bank (AIIB) continued to provide their assistance to NBRO.

NBRO in collaboration with the International Consortium on Landslides (ICL), conducted joint research on "Development of Early Warning Technology for Rapid and Long Traveling Landslides Project" (Project RRLL). Project RRLL is a 5-year research project implemented under the framework of the Science and Technology Research Partnership for Sustainable Development (SATREPS), funded by the Japanese International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST). The project aims to leverage advanced technology, introduced through global partners of the ISDR-ICL Sendai Partnerships 2015-2025, to enhance disaster risk reduction efforts for rain-induced rapid and long-travelling landslides.

Revenue

Recurrent expenditure of NBRO is mainly met by the revenue generated by provision of consultancy & offering a wide spectrum of laboratory testing services to state and private sectors. A significant net annual profits have been recorded continuously from 2010. Over the years, the financial stability of

Total Operating Revenue vs. Net Profit for last 11 years



the institution has been firmly secured and revenue, profits and reserves have been steadily growing. In addition, NBRO effectively utilize funds received from the general treasury for implementing disaster risk management projects on annual basis.

Appreciation

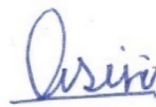
I take this opportunity to thank Hon. Anura Kumara Disanayake, HE the President/ Minister of Defence and Hon. Deputy Minister of Defence, Major General K P Aruna Jayasekara (Retd) and the Secretary of the Ministry of Defence, and also the Chairman of Interim Management Committee (IMC) of NBRO Air Vice Marshal Sampath Thuyacontha (Retd), for their direction and guidance. I also wish to thank the members of the IMC and Audit & Management Committee, Director Generals of Disaster Management Centre and Department of Meteorology, the Director Generals of Department of National Budget, Department of General Treasury, National Planning Department, External Resources Department (ERD) and Director of National Disaster Relief Services Centre (NDRSC) who deserve great appreciation.

At this juncture our gratitude is also extended to our international stakeholders, JICA, AIB, the World Bank, ADPC, USGS, ICL, and all the local collaborating institutions and universities for providing technical and financial assistance for various projects and programs. In addition, I express my sincere thanks to our local stakeholders and valued customers for their continued confidence on us.

I am grateful to the dedicated employees of NBRO, without the help of whom we will not be able to perform at this extent during the recent unfavourable economic condition. Our appreciation is gratefully extended to this remarkably competent

team, whose knowledge, skills and professionalism make the backbone of NBRO.

We will continue working cooperatively to improve the NBRO performance further in the coming years and accomplish the mission and objectives set by the Strategic Plan. We are sure that our team members will be very supportive to each other and collaborate across teams in sharing ideas and achieving great outcomes.



Eng. (Dr.) Asiri Karunawardena
Director General

MANAGEMENT OF NBRO

MINISTER IN-CHARGE OF THE SUBJECT

Hon. Anura Kumara Dissanayake

Minister of Defence

Hon. Major General K P Aruna Jayasekara (Retd)

Deputy Minister of Defence

Presently a Cabinet approved Interim Management Committee (IMC) with Secretary of the line ministry as the Chairman guides and directs the administrative, financial and management functions of NBRO.

INTERIM MANAGEMENT COMMITTEE OF NBRO (IMC)

Air Vice Marshal Sampath Thuyacontha (Retd)
(Chairman)
Secretary, Ministry of Defence

Mr. W M Ananda

Additional Secretary (Policies & Administration)
Ministry of Urban Development, Construction & Housing

Mr. H U R Fonseka

Chief Accountant, Disaster Management Division,
Ministry of Defence

Mr. A K Karunanayake

Director General,
Dept. of Meteorology

Major General H M U Herath

Director General
Disaster Management Centre

Mr. M K P Kumara

Director General,
Department of Trade and Investment Policies

Eng. (Dr.) Asiri Karunawardena

Director General/Secretary IMC
National Building Research Organisation

AUDIT & MANAGEMENT COMMITTEE

Mr. M K P Kumara

Chairperson
Director General, Department of
Trade and Investment Policies

Mr. A K Karunanayake

Member
Director General,
Department of Meteorology

Mr. H U R Fonseka

Member
Chief Accountant,
Disaster Management Division,
Ministry of Defence

Observer

Mrs. L B G Sandamali

Audit Superintendent
National Audit Office

Mrs. R S M I Jayathilaka

Chief Internal Auditor
Disaster Management Division, Ministry of
Defence

In participation

Eng. (Dr.) Asiri Karunawardena

Director General

Mrs. Kumudu Randeny

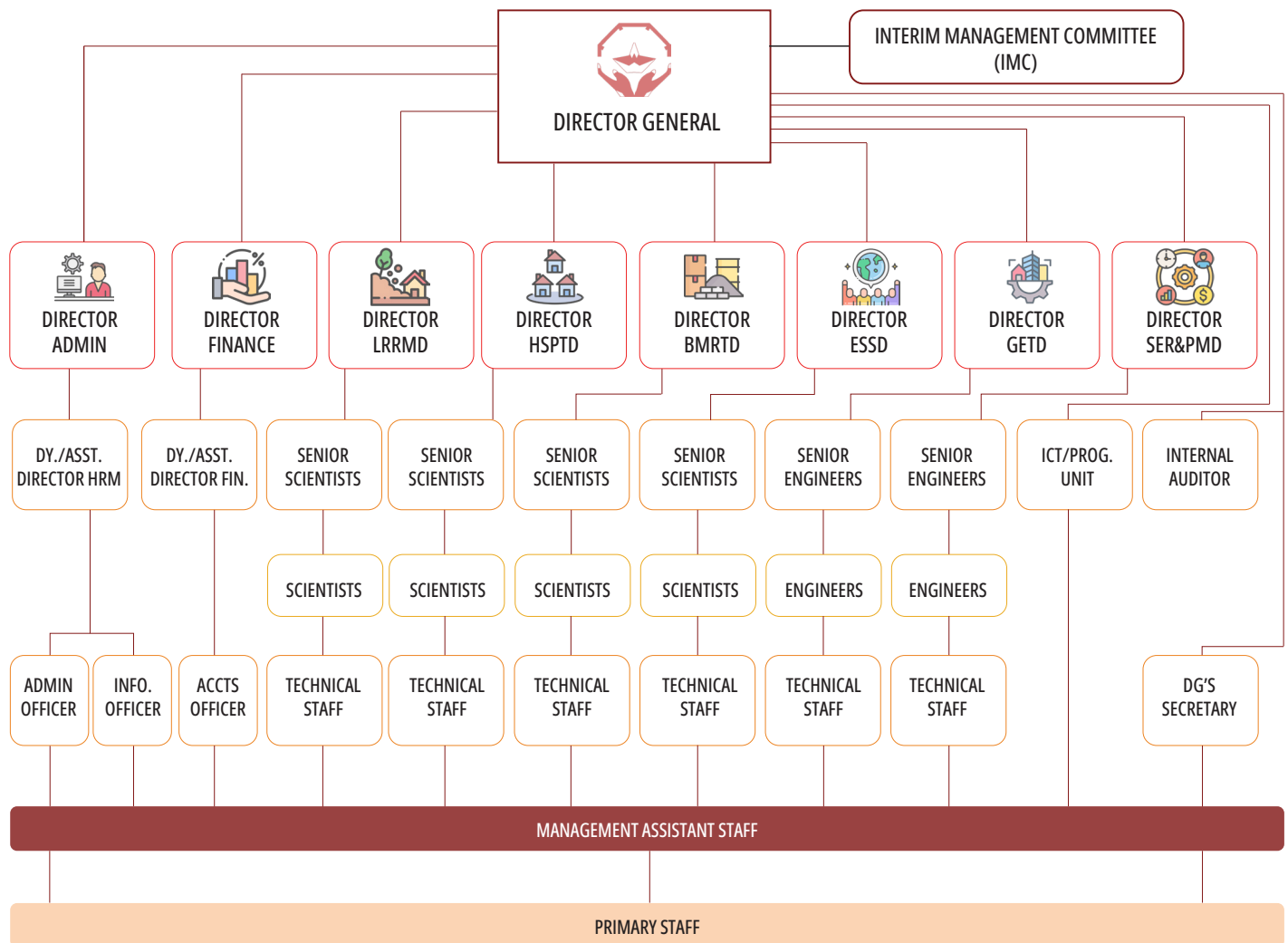
Director (Finance)

Mr. H L Ruwanthilaka

Internal Auditor

National Building Research Organisation

ORGANISATION STRUCTURE



BMRTD - Building Materials Research & Testing Division

ESSD - Environment Studies & Services Division

GETD - Geotechnical Engineering & Testing Division

HSPTD - Human Settlements Planning and Training Division

LRRMD - Landslide Research & Risk Management Division

SER&PMD - Structural Engineering Research & Project Management Division

ADMIN - Administration Division

FINANCE - Finance Division

SENIOR MANAGEMENT OF NBRO

Eng. (Dr.) Asiri Karunawardena	Director General
Mr. Kithsiri N Bandara	Director, Geotechnical Engineering & Testing Division
Mrs. Sunethra Muthurathna	Director, Building Materials Research & Testing Division
Mr. Sarath Premasiri	Director, Environmental Studies & Services Division
Ms. Dammika Kahahengoda	Director, Structural Engineering Research & Project Management Division
Dr. Gamini Jayatissa	Director, Landslide Research & Risk Management Division
Mr. Chinthaka Rathnasiri	Actg. Director, Human Settlements Planning & Training Division
Mrs. Kumudu Randeny	Director, Finance
Mr. Sarath Cooray	Director, Administration

ANALYSIS OF FINANCIAL & OPERATIONAL PERFORMANCE

During the year under review NBRO carried out the following specific tasks in line with its designated functions and Strategic Action Plan.



Projects under Public Investment Program

Landslide Risk Assessment Reporting Process (LRAR)

LRAR process has been implemented targeting to reduce life loss and property damages due to man-made activities and haphazard development in the hilly areas. NBRO issues Landslide Risk Assessment Reports to local governmental and project approving authorities recommending whether to grant or not approval to a building permit or approval of a development project when sites are in landslide-prone areas. By 31st December 2024 NBRO has granted approval over 108,000 applications since the

issuance first started in March 2011. The number of approvals issued in 2024 was 6,128 and the number of applications rejected for the period was 90. NBRO charges a nominal fee to process an application, carry out necessary investigations and issue a report. The General Treasury provided Rs. 42 Mn in the year 2024 to cover the recurrent expenditure of this process and the balance expenditure was borne by NBRO revenue as CSR.

Table: Progress of the Issuance of Landslide Risk Assessment Certificates for Construction and Development Activities in Landslide Prone Areas (LRAB & LRAD) - (01.03.2011 - 31.12.2024)

#	District	01.03.2011 - 31.12.2024				01.01.2024 - 31.12.2024				December 2024				Pending Application Details			
		Applications Received (1)	Permission granted (2)	Permission not granted (3)	Applications Cancelled due to other reasons (4)	Applications Received	Permission granted	Permission not granted	Applications Cancelled due to other reasons	Applications Received	Permission granted	Permission not granted	Applications Cancelled due to other reasons	Total applications pending	Pending For initial Investigation / report preparation	Referred to revisit / detailed inspection	Details Pending from Client
1	Kandy	24,464	22,193	320	1,861	1,153	1,008	1	107	119	95	-	-	90	88	1	1
2	Matale	10,662	10,503	78	79	584	479	60	47	33	35	-	-	2	2	-	-
3	Nuwar-aeliya	9,312	8,865	103	335	399	416	14	7	39	41	-	-	9	8	-	1
4	Badulla/ Monaragala	15,891	15,142	262	326	1,041	873	10	6	111	92	1	-	161	159	-	2
5	Kagalle	13,677	12,941	80	549	550	480	5	4	78	34	2	1	107	105	-	2
6	Ratnapura	15,334	13,634	47	1,638	1,136	1,157	-	35	124	118	-	-	15	2	1	12
7	Kalutara	1,588	1,512	16	48	113	106	-	-	5	11	-	-	12	12	-	-
8	Galle	20,869	20,660	12	108	1,542	1,489	-	15	161	152	-	-	89	89	-	-
9	Matarara/ H'tota	2,592	2,579	5	8	101	101	-	-	10	10	-	-	0	0	-	-
10	Kurunegala	83	79	-	4	11	10	-	3	-	-	-	-	0	0	-	-
11	Colombo/ Gampaha	116	105	3	4	12	9	-	-	-	-	-	-	4	4	-	-
Total		114,588	108,213	926	4,960	6,642	6,128	90	224	680	588	3	1	489	469	2	18

Landslide Investigations, Research & Development

Landslide Hazard Zonation Mapping Program (LHMP)

The Landslide Hazard Zonation Mapping Project (LHMP), implemented by the NBRO, is actively implemented to address landslide risks management in vulnerable regions. Landslide hazard zonation maps, at a scale of 1:50,000, have been prepared, covering an area of 32,593.1 sq. km across 13 districts identified as landslide-prone. Additionally, maps at a finer scale of 1:10,000 have been created to encompass 10,560 sq. km in prioritized areas, at the end of 2024 with the completion of mapping for 560 sq. km in the Ratnapura district, utilizing LKR 15.0 million.

The maps generated through this initiative play a crucial role in various aspects, including the issuance of landslide early warnings, conducting landslide investigations leading to hazard risk assessments, and producing Landslide Risk Assessment Reports (LRAR). Furthermore, these maps are instrumental in identifying and prioritizing potentially hazardous sites for effective mitigation strategies. Beyond these applications, the maps are utilized in national and regional level planning by diverse institutions. Interested parties can access most of these maps free of charge through the NBRO website (www.nbro.gov.lk), fostering a collaborative and informed approach to landslide management.

Landslide Investigations (LI)

District and Divisional Secretaries, and other officials from governmental institutions, frequently request NBRO to conduct landslide investigations to identify risks at specific sites concerning the safety of neighbouring human settlements, infrastructure, and plantations, and to provide immediate recommendations. In 2024, a total of 4,814 landslide investigations were carried out. The General Treasury allocated LKR 55 million for this work.



Cutting Failure at Wathuliyadda - Kandy



Landslide at Maliththagolla



Landslide at Passara - Monaragala Road

Landslide Mitigation Program (GOSL Funded)

NBRO executes structural mitigation of unstable slopes and potential landslides on a priority basis using government funds. In 2024, the unstable slope segment at Karadagolla in the Badulla District has been stabilized using urgent and temporary countermeasures until permanent mitigation measures are implemented. Additionally, landslide mitigation works are in progress at Haththota Amuna Vidyarthi Model Primary School in Matale, Udalamaththa Maha Vidyalaya in Galle, and Thellambura Dutugemunu Maha Vidyalaya in Nakiyadeniya, Yakkalamulla.

Other ongoing mitigation projects funded by the Treasury include the Bandarawela Police Station,

Uduhawara and Bolthube Landslide Mitigation Project (Phase II), Meegahatenna Hospital, and the Kadugannawa rockfall site. These efforts aim to enhance infrastructure resilience.



Landslide mitigation project at Hatthota Amuna, Matale

Development of Risk Profile for Landslide Prone Areas

Initiated in 2016, the Landslide Risk Profile Development Project aimed to produce a series of outputs to guide local, regional, and national-level decision-makers in Disaster Risk Reduction (DRR) and development planning. Risk profiles covering landslide-prone districts were developed to enhance the capacity of national and sub-national agencies in assessing disaster risks and formulating short-, medium-, and long-term disaster risk reduction strategies.

The 2024 Risk Mapping Project focused on identifying risk clusters, developing risk reduction solutions, prioritizing high-risk areas, and disseminating landslide risk information to national, regional, and local stakeholders. Additionally, the project emphasized community engagement and preparedness through innovative DRR initiatives. The following activities were carried out in 2024 as part of the 5-year planned work:

- ◇ Identification of Risk Clusters and Risk Reduction Measures: Preparation of Risk Cluster Maps.
- ◇ Development of a Solution Matrix for Identified Risk Clusters and Cluster Prioritization.
- ◇ National-Level Workshop on Landslide Risk Information Dissemination: Engagement of national DRM stakeholders.
- ◇ Regional-Level Workshops for Decision-Makers: Participation of District Secretaries, Divisional Secretaries, UDA, PRDA, DMC, NDRSC, and the Plantation Trust.
- ◇ Local-Level Workshops for Utilizers: Involvement of Grama Niladhari, NDRSC, and DMC.
- ◇ Strengthening Community Vigilance for Landslide Disasters: Distribution of manual rain gauges.
- ◇ Child-Centered Disaster Risk Reduction (DRR) Program: Methodology and material development.
- ◇ Community-Based Disaster Risk Management (CBDRM) Program: Methodology and material development.



Regional-Level Workshops at Ratnapura



Regional-Level Workshops at Kandy

Enhancing Real Time Landslide Forecasting & Early Warning Capacity

NBRO maintains a network of 330 automated rain gauges for monitoring rainfall in landslide-prone areas for effective issuance of landslide early warnings, as triggering of landslides mostly occurs due to increase in soil moisture by high intensity rainfall. Scientists of Landslide Early Warning Centre at the NBRO study weather forecasts issued by the Department of Meteorology and analyze rainfall data acquired from the automated rain gauges for issuing early warnings

combinedly with the Emergency Operation Centre of Disaster Management Center. In addition, NBRO has improved its capacity in landslide monitoring with ground movement detection instruments and moisture sensing instruments. 123 early warnings have been issued in 2024 and the treasury provided LKR 15.0 million for repairs and maintenance work of the system.

Building Assessment & Condition Reporting (BACR) Project

The Structural Engineering Research & Project Management Division (SER & PMD) of the NBRO plays a vital role in providing Building Assessment and Condition Reporting (BACR) services. While NBRO operates as a self-funded institution, charging fees for its services, many building owners, particularly those from underprivileged backgrounds, cannot afford these costs, leaving them to reside in potentially hazardous structures. To address this issue, the government allocated LKR 25 million to NBRO through cabinet approval in 2019. This funding has been instrumental in assessing the structural integrity of critical public institutions such as schools, hospitals, and other government buildings, ensuring their safety and resilience.

detailed evaluations and provides recommendations on whether a building should be demolished, rehabilitated, or restored for future use. Since its inception, NBRO has issued over 450 comprehensive reports, with 101 reports completed in 2024 alone.



Hosuing Complex at Narahenpita

Eligibility for the BACR project is based on urgent needs, including buildings exceeding their design life, showing signs of aging or deterioration, or suffering damage from disasters, poor maintenance, or nearby construction activities. NBRO conducts

RESEARCH & DEVELOPMENT PROGRAM

NBRO Research and Development (R&D) Program Initiated in 2013, the NBRO R&D Program continues to thrive with the support of research grants from the General Treasury. For the year 2024, an annual government grant of LKR 15 million has been allocated to advance research efforts aimed at “Creating a Safer Built Environment.”

This funding is strategically utilized to address industrial requirements and community needs, ensuring safer living conditions for all. Through innovative, SMART, and strategic solutions, NBRO addresses critical issues identified through in-

depth discussions with professionals, practitioners, and academia. This collaborative platform brings together stakeholders to identify and prioritize research needs, fostering a problem-solving approach through R&D outputs.

In 2024, 13 research projects were undertaken under the R&D Programme, with guidance from the NBRO Research Committee. The committee has played a pivotal role in supporting scientists by providing essential resources and facilities to ensure the successful execution of projects.

Table: Research Titles of the R & D Program 2024

Division	Research Title	Principal Researcher
BMRTD	Development of vegetation-pervious concrete by utilizing waste products and analysis of performance by varying the parameters	SR Randika
	Development of foam concrete for backfilling applications of slope stabilization works	GKBM Gannoruwa
	Developing a value-added product using currency waste collected from the Central Bank, in Sri Lanka	SADAS Suraweera
HSPTD	An application of generative AI towards creating resilient communities through resilient construction guidelines, awareness and education in disaster management	P Wickramasinghe
	An application of Convolutional Neural Network (CNN) in extracting landslide topography and identifying element at risk	S Jayaprakash
	Self-assessment tool for assessing disaster resilience of low-rise buildings/houses in Sri Lanka	P Wickramasinghe
SER & PMD	Machine learning-based assessment of corrosion-related damages in reinforced concrete low-rise buildings	K Raakulan

Table: Research Titles of the R & D Program 2024

Division	Research Title	Principal Researcher
LRRMD	Development of advanced landslide susceptibility mapping methodology using machine learning and AI tools	HWGPT Gamage
ESSD	Development of a high-precision acid rainwater collector & detector as a secondary confirmation strategy of ambient air quality	R Ruhunuge
	Investigate the acoustic properties of cement plaster with recycled material as a fine aggregate replacement for screening noises in multistory residential buildings	WKN Chandrasena
	Tree risk assessment for identification of hazardous trees to prevent casualties and damages to properties due to tree failures within the Colombo Municipal Council area	VDW Sumanaseka
GETD	Assessing the Applicability of LS-RAPID Software for Landslide Prediction in Sri Lanka: A Case Study from Passara - Bibile Road.	WCM Imalsha
	Experimental study on cyclic shear resistance of Alluvium Soils in Sri Lanka	HWSD Hewawasam

Annual research outcomes are presented and published at the annual NBRO research symposium.

SYMPOsia




National Building Research Organisation
Proudly Present

14TH ANNUAL RESEARCH SYMPOSIUM 2024

Reserve your date on

25th February 2025

The 14th Annual Research Symposium of the NBRO is scheduled to be held on 25th February 2025 in Colombo. This year's Symposium is planned to be conducted under the broad theme of "SMART Solutions for Built-Environment RESILIENCE".

The symposium is designed to be a collaborative platform with the participation of public and private sector institutions, academia, professional bodies, and international and regional partner agencies and individual eminent experts in the similar disciplines.

The symposium inauguration is planned with a keynote speech by Mr. Ajith Abeysekera, Deputy Secretary to the Treasury, and Ministry of Finance, Planning and Economic Development, followed by a guest speech from chief representative of JICA Sri Lanka, an address by the chief guest Hon. Major General K.P. Aruna Jayasekara (Retd), Hon. Deputy Minister of Defence. Further, it is planned to have a special launching session.

A panel discussion on 'SMART SOLUTIONS FOR BUILT-ENVIRONMENT RESILIENCE' is planned to be held with the participation of eminent experts from

the industry. The event will showcase the outcomes of research studies conducted by NBRO in the year 2024, featuring over 35 research papers and presenting around 12 studies across three technical sessions named;

- ◇ Technical Session 1: TRANSFORMING RISK ASSESSMENT WITH ADVANCED TECHNOLOGIES
- ◇ Technical Session 2: INNOVATION IN ACTION FOR SUSTAINABLE ENVIRONMENT
- ◇ Technical Session 3: DIGITAL INNOVATIONS IN EARLY WARNING AND RISK COMMUNICATION FOR EARLY ACTIONS

The symposium will facilitate strengthening the partnership with professionals of the built environment and further enhance the capacity of the NBRO.

MAJOR CONSULTANCY PROJECTS

Geotechnical Clearance for Assessing Possible Adverse Impacts to Adjacent Built Environment

The NBRO issues Geotechnical Clearance for proposed development activities, including piling and deep excavations. The primary objective of this clearance is to assess the potential impacts of proposed developments on adjacent properties and the surrounding built environment, particularly during the construction of building substructures.

This requirement is mandated by Clause 57 (3)(c) of the Urban Development Authority (UDA) Planning & Development Regulations 2021, as published in Gazette No. 2235/54 on July 8, 2021.

To streamline the clearance process, NBRO has signed Memorandum of Understanding (MoUs) with the Sri Lanka Tourism Development Authority (SLTDA) and the One Stop Unit (OSU) of the UDA. As part of this initiative, NBRO issued 22 Geotechnical Clearances and renewals in 2024, generating LKR 3.9 million in consultancy fees.

The following table illustrates the number of Geotechnical Clearances and renewals issued annually from 2018 to 2024.

Table: Issued clearances and renewals from 2018 to 2024.

Year	2018	2019	2020	2021	2022	2023	2024
No. of clearances and renewals	38	20	09	35	21	15	22

Investigations and Damage Assessments of Buildings

The Structural Engineering Research and Project Management Division (SER&PMD) of the NBRO provides expert consultancy services for both public and private sector clients. These services include the assessment of proposed and existing buildings, such as schools, universities, factories, hospitals, office buildings, supermarkets, hotels, and houses. The SER&PMD conducts pre-intermediate, and post-



Sahaspura Housing Scheme, Colombo

crack surveys to monitor structural integrity during new construction projects, ensuring the safety and durability of buildings.

In 2024, SER&PMD investigated numerous buildings and structures, issuing 113 reports to private sector clients.



Nurses quarters building at Batticala teaching hospital

GeoAi Laboratory Consultancy Activities in 2024

The GeoAi Laboratory at the NBRO serves as a center of excellence in geospatial intelligence, disaster risk management, urban planning, and environmental sustainability. In 2024, the laboratory successfully integrated advanced geospatial technologies, such as GIS, LiDAR, drone surveys, and AI-driven spatial analysis, into its research and consultancy services. Key achievements included conducting photogrammetry and thermography drone surveys for morphological analysis in Mawanella, Nittambuwa, and Kegalle, as well as completing building surveys of over 800 structures. The laboratory also supported landslide mitigation efforts through LiDAR surveys in high-risk districts like Badulla, Kandy, Matara, and Ratnapura, generating contour maps, 3D models, and orthomosaic images. Additionally, the lab developed innovative tools, such as a mobile application for manual rain gauge data collection and specifications for the Landslide-Resilience (LA-

Res) system, enhancing disaster preparedness and response capabilities.

The GeoAi Laboratory also focused on capacity building and knowledge sharing, conducting training programs on LiDAR surveying, multispectral and thermal imagery, and GIS for Disaster Risk Reduction Planning. These initiatives equipped government officers and professionals with essential geospatial skills, strengthening institutional capabilities in disaster risk management. Furthermore, the laboratory developed a systematic methodology for prioritizing landslide mitigation sites, enabling more effective resource allocation and decision-making. Through these efforts, the GeoAi Laboratory reinforced its role as a key provider of geospatial intelligence solutions, contributing to disaster resilience, urban planning, and environmental sustainability in Sri Lanka.



Conduct LiDAR surveys in landslide mitigation locations



Training program on "LiDAR surveying, Multispectral"

Site-Specific Environmental and Social Management Plans for Mitigating Sites under RLVMMMP

The NBRO is implementing the Reduction of Landslide Vulnerability by Mitigation Project (RLVMMMP) with financial assistance from the Asian Infrastructure Investment Bank (AIIB). The project aims to mitigate 140 unstable slopes in high-risk areas across 11 districts in 6 provinces, adhering to the environmental and social safeguards mandated by AIIB and national laws. An Environmental and Social Management Framework (ESMF) was developed to guide the application of these safeguards during project implementation. In line with the ESMF, Site-Specific Environmental and Social Management Plans (SSE&SMP) have been prepared for each site, addressing the unique environmental, social,

health, and safety conditions. These plans outline management measures for the planning, design, construction, and operational phases, ensuring sustainable and responsible project execution.

The SSE&SMPs also include the establishment of a grievance redress mechanism to address concerns from project-affected communities. During the preparation of these plans, consultations were held with affected individuals and stakeholder organizations to raise awareness, gather feedback, and address concerns. All SSE&SMPs are accessible to the public on the project website (<https://rlvmmp.lk/>).

Project Management Consultancy Services by SER & PMD

In 2023-2024, SER & PMD undertook several significant public and private sector projects, including landslide mitigation projects such as the rectification of a cutting failure at Bolthumbe (LKR 46.3 million), landslide mitigation at Zahira College, Nuwara Eliya (LKR 28.9 million), Hatthota Amuna, Matale (LKR 18.9 million), and Udalamatta Maha Vidyalaya, Galla, and Dutugemunu Maha Vidyalaya, Yakkalamulla (LKR 30.5 million). Other notable projects included the investigation and rectification of water leaks at the Disaster Management Division, Ministry of Defence (LKR 40 million), repair work at the Survey Department, Colombo 05 (LKR 23 million), and Stage I repairs of the Gampaha Pradeshiya Sabha building (LKR 4 million). These efforts highlight SER

& PMD's commitment to providing critical expertise and technical support, enhancing infrastructure resilience, and supporting national initiatives to mitigate natural hazards.



Renovation Project at Survey Department, Colombo 05

INCOME BY TESTING & CONSULTANCY

Provision of technical testing and consultancy services in the fields of landslide studies and services, geotechnical engineering, project management services, building materials, human settlements planning and environmental management was continued as summarized below:

Table : Income by Testing & Consultancy Works

Activity/ Division	No. of consultancy jobs	No. of testing/ Investigation jobs	Total Income Generated (Rs. Mn.)
Landslide Research & Risk Management Division	824	11,237	116.35
Geotechnical Engineering & Testing Division	141	58	200.47
Environment Studies & Services Division	2	440	81.16
Building Materials Research & Testing Division	1	2,128	53.50
Structural Engineering Research & Project Management Division	135	-	40.27
Human Settlements Planning & Training Division	29	-	15.04
Consultancy work RLVMM Project	-	-	2.79
Other Revenue	-	-	86.83
Total			597.31

OTHER TECHNICAL INTERVENTIONS

Inspiring Landslide Risk Management and Resilience through Smart Office Transformation at LRRMD, NBRO

The Landslide Research & Risk Management Division (LRRMD) of the National Building Research Organisation (NBRO) has embraced a smart office approach, leveraging digital tools and streamlined processes to enhance efficiency and service accessibility. A key milestone in this transformation is the development of the Landslide Information Management System (LIMS), funded by JICA under the SABO project. LIMS digitizes the workflow for landslide inspections, from request submission to report issuance, and manages a comprehensive database of approximately 120,000 historical landslide records. This system has significantly improved operational efficiency, reduced paper usage, and enabled faster, more accurate decision-making through a semi-quantitative assessment approach. Additionally, LRRMD has achieved ISO/IEC 17020:2012 accreditation from the Sri Lanka Accreditation Board (SLAB) for its inspection services, affirming its technical competence and alignment with international standards.

The accreditation, initially granted to the Colombo/Gampaha District office, is being extended to other district offices to ensure consistent, high-quality inspection services nationwide. These advancements position LRRMD to meet the growing demand for landslide inspection services while delivering reliable,

transparent, and accurate reports to both public and private sector clients. By adopting digital innovation and adhering to international standards, LRRMD is setting a benchmark for proactive landslide risk management and inspiring resilience across Sri Lanka. These efforts underscore NBRO's commitment to enhancing safety, disaster preparedness, and operational excellence in the face of natural hazards.



Technological Upgrading of the Environmental Laboratory with High-Precision Analytical Instruments

The Environmental Laboratory of NBRO has been relocated to the new laboratory complex and equipped with state-of-the-art sophisticated instruments, marking a significant leap in research and consultancy capabilities. The newly acquired instruments, including Gas Chromatography-Mass Spectrometry (GC-MS), Ion Chromatography (IC), Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES), X-Ray Diffraction (XRD), and X-Ray Fluorescence (XRF), provide unprecedented precision and analytical power for testing in areas such as water, wastewater, air quality, and material quality. This cutting-edge technology enables scientists to delve deeper into complex phenomena, paving the way for groundbreaking discoveries and enhanced research outcomes.

These advanced instruments significantly improve the accuracy, precision, and efficiency of experiments through features such as advanced automation, faster data processing, enhanced sensitivity, and precise temperature control. As a result, the laboratory can deliver more reliable results, reduce analysis times, and enhance the overall quality of data produced. This technological upgrade reinforces NBRO's commitment to excellence in environmental research and consultancy, supporting the organization's mission to address critical environmental challenges with innovative and reliable solutions.

ESSD Laboratory Achieves ISO/IEC 17025 Certification for Noise Measurements

The Environmental Studies and Services Division (ESSD) of NBRO provides comprehensive services and laboratory testing in environmental-related activities. Registered with the Central Environmental Authority as an accredited Environmental Testing Laboratory and consultancy agency, ESSD conducts environmental assessments for national-level projects. Equipped with advanced field and laboratory instruments and staffed by multidisciplinary professionals, ESSD serves individuals, state, and private organizations in environmental quality monitoring and pollution control studies.

In 2024, ESSD achieved a significant milestone by obtaining ISO/IEC 17025 certification from

the Sri Lanka Accreditation Board for Conformity Assessment (SLAB) for Boundary Noise Level Measurements. This certification, based on BS 4142:2014 +A1:2019 and Extraordinary Gazette No. 924/12, 2023, complements the laboratory's existing accreditations for chemical testing of water, wastewater, and cement.



Updating of Air Quality Monitoring Projects by NBRO

In collaboration with the Central Environment Authority (CEA), NBRO is implementing a project to develop a National Platform for Integration and Dissemination of Air Quality Monitoring Data Management System in Sri Lanka. Funded by the Vehicle Emission Test Trust Fund of the Department of Motor Traffic, the project has a total budget of LKR 66.0 million and a duration of two years. The initiative aims to integrate air quality data from monitoring sites across the island, operated by various government and non-government organizations, into a unified platform. This will enable the dissemination of air quality information through common and digital media, raising public awareness and supporting informed decision-making.

The project also focuses on supporting short and long-term health risk assessments, identifying localized health concerns, and tracking long-term

air quality trends that may impact the quality of life for Sri Lankan citizens. By consolidating and sharing air quality data, NBRO aims to enhance public health protection and contribute to sustainable environmental management.



Mobile Ambient Air Quality Monitoring Laboratory

NBRO and Century Zone (Pvt) Ltd. Collaborate on Innovative Fly Ash Block Development

The Building Material Research and Testing Division of the NBRO has embarked on an innovative research project in collaboration with Century Zone (Pvt) Ltd. This partnership focuses on the development and certification of fly ash-based blocks, utilizing fly ash, a by-product of coal combustion, to create sustainable, durable, and cost-effective building materials. The project aims to produce cementitious fly ash blocks that meet international standards, contributing to sustainable construction practices and advancing the building material industry.

Key objectives of the research include developing a new fly ash-based block formulation that complies with international norms and initiating the certification process to establish these blocks as a certified building material.



Signing of MOU between NBRO and Century Zone (Pvt) Ltd.

Studies on Country-Specific Emission Factors for AFOLU Sector in Sri Lanka

The Environmental Studies and Services Division (ESSD) of NBRO is conducting research studies to develop Country-Specific Emission Factors for the Agriculture, Forestry, and Other Land Use (AFOLU) sector in Sri Lanka. This initiative, carried out under the Enhanced Transparency Framework (ETF) project for the Climate Change Secretariat of the Ministry of Environment, aligns with the IPCC (2006) guidelines for greenhouse gas inventory preparation. The study focuses on three key areas: methane emissions from enteric fermentation (per head emission by animal category), methane emissions from rice cultivation (by climatic zone per day or season under specific management practices), and reference carbon stocks for specific soil types under human intervention. Collaborative institutions, including the Rice Research and Development Institute, Bathalagoda,

and the National Livestock Development Board, are supporting the project.

To ensure accuracy, methane emissions from rice cultivation are monitored using IoT-based factory-calibrated methane sensors and validated through the Gas Chromatography-FID (Flame Ionization Detector) methodology. For livestock, the Methane Conversion Factor (MCF) is determined using the ventilated chamber method, considering Sri Lanka's unique geographical, climatological, and feeding conditions. Additionally, Soil Organic Carbon (SOC) measurements are conducted across natural forests in three climatic zones to quantify carbon stocks, ensuring accurate reporting under international climate agreements and guiding mitigation strategies.

Swisstek Ceylon PLC Partners with NBRO for Developing Premium Construction Grout Materials

In a significant step toward innovation in the construction industry, Swisstek Ceylon PLC, a leading manufacturer of tiles (Lanka Tile), tile adhesives, and tile grouts, has partnered with the NBRO to expand its product line into structural construction materials. On July 17, 2024, the two organizations formalized this collaboration by signing a Memorandum of Understanding (MOU) at the NBRO Auditorium. The MOU outlines their shared commitment to developing premium construction grout materials, leveraging NBRO's technical expertise to meet industry standards and address market demands. This partnership marks a major milestone for Swisstek

Ceylon PLC as it enhances its production capabilities and ventures into new product categories. With NBRO's support, the collaboration is expected to yield innovative, high-quality construction materials that contribute to the advancement of the industry.



Signing of MOU between NBRO and Swisstek Ceylon PLC

NBRO Conducts Small Hard Body Impact Test for the First Time in Sri Lanka

The NBRO successfully completed the Small Hard Body Impact Test for partition wall panels, conducted in accordance with the BS 5234-Part 2 Standard. This marks the first time such a test has been performed in Sri Lanka, representing a significant milestone in advancing local testing capabilities and aligning with international safety standards.

The test, carried out at the request of a valued client, is critical for evaluating the impact resistance and durability of partition wall panels, contributing to safer and more resilient building structures. Conducted by the Building Materials Research and Testing Division of NBRO, this achievement underscores the organization's commitment to introducing innovative testing methodologies and ensuring the highest quality standards in building materials across Sri Lanka.



Small Hard Body Impact Test

Mitigation of Maliththagolla Landslide in Ella of Badulla District

The Maliththagolla landslide in Ella, Badulla District, which occurred on 29th April 2024, reactivated a previously identified landslide from 2019 and December 2023. This event disrupted the Bandarawela-Ella-Wellawaya main road, posing a significant threat to the road located approximately 100 meters below the landslide site. The landslide's movement, characterized by visible tension cracks, water stagnation, and springs, raised concerns about its impact on the local tourism industry and socio-economic activities. Geological investigations indicated that while the slope is stable in the long term, immediate intervention was necessary to prevent further movement and potential damage.

In response, the Geotechnical Engineering Division of NBRO implemented short-term mitigation measures, including the construction of horizontal and temporary earth drains to manage groundwater levels and reduce pore water pressure. Detailed geophysical and geotechnical investigations were also conducted to develop a long-term mitigation plan. These efforts successfully stabilized the landslide, restoring traffic within two to three days. The studies highlighted the critical role of groundwater dynamics in landslide activation even during drought season. Following the completion of the detailed mitigation design, construction activities for long-term stabilization have commenced under the RLVMMMP, ensuring the permanent stability of the area.

PROJECTS WITH FOREIGN / DONOR COLLABORATION

Reduction of Landslide Vulnerability by Mitigation Measures Project (RLVMMP)

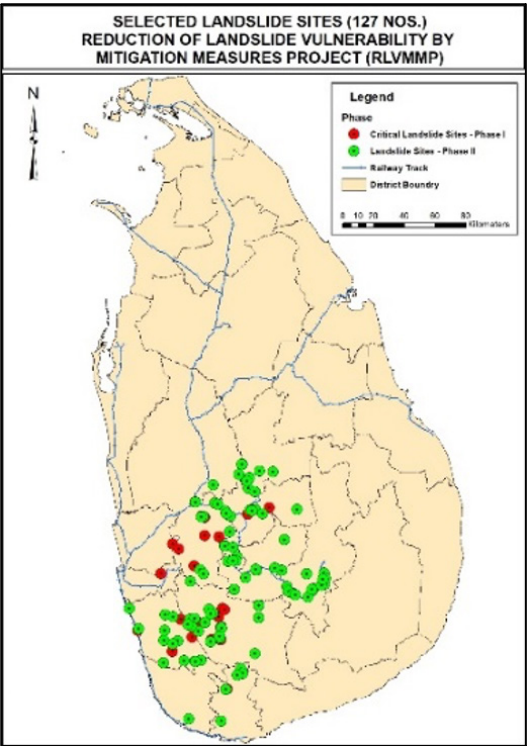
The NBRO commenced the Reduction of Landslide Vulnerability by Mitigation Measures Project (RLVMMP), which originated from the Cabinet-approved Integrated Landslide Mitigation Program. This mega project aims to mitigate identified high-risk landslide sites, including unstable roadside slopes and slopes along the upcountry main railway lines in the hill country, over a five-year period. The project comprises four main components:

- ◇ Civil works and associated design and construction supervision/management activities,
- ◇ Policy and regulation enhancement,
- ◇ Institutional capacity building, and technical support and project management.

Funded by the Sri Lankan Government and the Asian Infrastructure Investment Bank (AIIB), the project's financing was revised in June 2022 from USD 110 million to USD 101.3 million, reducing the number of sites to be mitigated from 147 to 128. As of January 31, 2025, civil work construction has been completed at 59 locations (Phase I - 24 sites, Phase II - 35 sites), with the remaining 69 sites of Phase II currently in progress. The overall physical progress of the RLVMMP project stands at 62%, with a financial progress of 46%. Additionally, 35 more sites have been identified for mitigation using USD 12 million reallocated by AIIB, further enhancing the project's impact on landslide risk reduction.

Table : Distribution of Mitigation Sites

Province	District	No. of Sites
Western	Colombo	1
	Gampaha	1
	Kalutara	20
Central	Kandy	16
	Matale	10
	Nuwara-Eliya	8
Southern	Galle	2
	Matara	6
North Western	Kurunegala	4
Uva	Badulla	18
Sabaragamuwa	Ratnapura	26
	Kegalle	16
TOTAL		128



Location Map of the Selected Landslide Sites

Table: Progress of Phase I - Component 01

Package	No of Sites	District(s)	Status
Package 01	04	Ratnapuna	100% completed (Construction, defect notification period and handed overing to the relevant stakeholders)
Package 02	07	Ratnapura, Kalutara	
Package 03	02	Matara	
Package 04A, 04B, 04C	11	Kegalle, Kurunegala, Kandy, Gampaha, Colombo	

Table: Progress of Phase II - Component 01

Package	No of Sites	District(s)	Status
Package 09	01	Nuwara-Eliya	Civil works 100% completed
Package 07 (Lot 1-6)	33	Ratnapura, Kalutara, Galle, Matara	Civil works 100% completed
Package 05 (A-E)	25	Kandy, Matale, Kegalle, Kurunegala	Construction works of 05A, 05C, 05E and 05D in progress. 05B Civil works 100% completed
Package 06 (A-F)	23	Nuwara Eliya, Kegalle, Ratnapura, Badulla, Matara, Galle	Construction works is in progress
Package 08 (Lot 1-3)	22	Railway Line (Rambukkana-Badulla)	Construction works is in progress



Landslide Mitigation Completed site - Nursing Training School Teaching Hospital, Kandy (Site No – 035 L2) – Package 05B

Climate Resilience Multi-Phase Programmatic Approach (CResMPA)

The Climate Resilience Multi-Phase Programmatic Approach (CResMPA) is a World Bank-funded initiative executed by the Ministry of Irrigation, with the National Building Research Organisation (NBRO) playing a key role in disaster risk reduction, early warning systems, and climate-resilient infrastructure development.

The primary objective of the NBRO component under CResMPA is to enhance Sri Lanka's early warning capacities under Component 1 of the project. The total cost allocated for NBRO's activities amounts to USD 9.00 million.

NBRO's Key Contributions Under CResMPA:

- ◇ Landslide Risk Assessment and Monitoring
 - Strengthening Sri Lanka's landslide early warning system through advanced geotechnical investigations, Enhancing real-time rainfall monitoring, Implementing impact-based early warnings for at-risk communities.
- ◇ Infrastructure Resilience - Providing technical expertise on building safety regulations, Ensuring construction practices align with disaster-resilient standards.

- ◇ Development of the National Building Code (UNBC) - Collaborating with stakeholders to establish climate-adaptive building regulations, Integrating hydrometeorological data and disaster risk reduction measures into building standards,

- ◇ Resilience Analytical and Advisory System (LA-Res)
 - Developing a high-resolution landslide resilience system, Utilizing LiDAR, IoT sensors, and real-time risk analysis for monitoring vulnerable areas. Enhancing early warning dissemination and supporting data-driven decision-making in landslide-prone districts.

- ◇ Air Quality Monitoring Enhancement
 - Strengthening air quality monitoring systems to ensure environmental and public safety.

By integrating scientific research with practical applications, NBRO contributes to strengthening Sri Lanka's disaster resilience and fostering safer, climate-adaptive urban development under the CResMPA project.

Preparation and Establishment of a National Building Code for Sri Lanka

NBRO has recognized the urgent need to address the increasing incidents of building collapses, fires, and damages caused by natural disasters in Sri Lanka. These incidents are often attributed to non-engineering practices and the involvement of non-competent personnel in construction activities. Additionally, the lack of a proper regulatory system

to identify and evaluate unsafe buildings has further highlighted the necessity for a comprehensive National Building Code. In response, NBRO, in collaboration with the Ministry of Housing, Construction and Cultural Affairs and the Ministry of Public Administration & Disaster Management, initiated the preparation of a National Building

Code for Sri Lanka. With technical assistance from the World Bank, the conceptualization phase was completed, resulting in a final draft report that includes recommendations for setting technical requirements, updating approval processes, and enhancing awareness and capacity building.

In 2024, NBRO, along with government agencies such as CIDA and UDA, as well as professional institutions in the construction industry, developed a comprehensive document to facilitate the procurement process for the National Building Code. This document outlines the Terms of Reference (ToR)

for consultants, the Inter-Department Coordination Committee (IDCC), the Project Operational Unit (POU), and Technical Sub-Committees, along with details of the project's operational structure and a financial proposal. Efforts are currently underway to begin the actual writing of the Building Code through the ongoing CResMPA project, which is funded by the World Bank. This initiative aims to strengthen the resilience of Sri Lanka's built environment by establishing standardized regulations for design, construction, maintenance, and deviation activities.

NBRO Collaboration with Vanderbilt University for Resilient Settlements Research

The NBRO has partnered with the Department of Civil & Environmental Engineering at Vanderbilt University, USA, to conduct a collaborative research project titled "Policy - Infrastructure - Community Interdependency: The Next Frontiers in Dynamic Network." This project focuses on evaluating the dynamic interdependencies between the agricultural and hydropower generation sectors within the Mahaweli Complex, with the aim of developing policy recommendations to enhance resilience. Discussions have been held with senior officials from the Mahaweli Authority of Sri Lanka (MASL) and the Ceylon Electricity Board (CEB) to introduce the initiative and outline key research activities. Data collection is currently underway to support the development of the model, with the project set to run from 2023 to 2026.

This research represents a significant step toward building climate-resilient communities capable of withstanding the impacts of climate change. By improving the resilience of water management

in the Mahaweli Complex a critical source of agricultural productivity and hydropower generation the project aligns with NBRO's goals of promoting sustainable and resilient settlements in Sri Lanka. The collaboration underscores NBRO's commitment to leveraging international expertise and innovative research to address climate challenges and enhance the country's resilience.



NBRO and VIEE Research Team

Development of Early Warning Technology for Rain-Induced Rapid and Long-Travel Landslides in Sri Lanka – SATREPS (JICA)

The International Consortium on Landslides (ICL) and the National Building Research Organization (NBRO) have collaboratively implemented a project titled “Disaster Risk Reduction of Rain-Induced Rapid and Long-Travelling Landslides (RRLL)” under Japan’s Science and Technology Research Partnership for Sustainable Development (SATREPS). This initiative is funded by the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). The five-year Japan-Sri Lanka project, which runs from March 1, 2020, to February 28, 2025, aims to enhance disaster risk reduction by integrating advanced technologies from global partners of the ISDR-ICL Sendai Partnerships 2015-2025. The project involves contributions from multiple local and Japanese organizations, which serve as collaborating and supporting agencies.

The overall goal of the project is to establish comprehensive technology for the early warning of rain-induced rapid and long-travelling landslides (RRLLs) in Sri Lanka. Although the project’s launch coincided with the global COVID-19 pandemic, activities during the first two years were primarily

conducted through online meetings. During this period, planned activities requiring travel to Sri Lanka, such as field surveys to identify issues in the social implementation of developed technologies and public education programs to build community capacity, were heavily restricted. These activities were successfully completed in the final year, as outlined in Table 1.

Since the project’s inception, six long-term trainees have been accepted, four of whom have obtained doctoral degrees and two of whom have achieved master’s degrees. Additionally, ten short-term trainees were admitted during the project’s duration. These trainees have gained critical academic expertise in predicting day-ahead mountain rainfall and RRLLs and are actively contributing to social implementation initiatives. A wrap-up symposium was successfully held at the National Building Research Organization (NBRO) on January 10, 2025, with the participation of officers from the International Consortium on Landslides (ICL), JICA, JST, and local organizations.



Wrap-up symposium held at NBRO auditorium

NBRO PUBLICATIONS

Symposium Proceedings of the 14th Annual Research Symposium of the NBRO

The NBRO Annual Research Symposium Proceedings comprise a collection of research papers and academic studies presented at the annual NBRO Research Symposium. The symposium proceedings cover a wide range of sub-themes, including Transforming Risk Assessment with Advanced Technologies, Innovation in Action for Mitigating Risk, and Digital Innovations in Early Warning and Risk Communication.

The proceedings of the 14th Annual Research Symposium of the NBRO include over 35 research papers, representing the latest research and developments in these areas. This publication reflects the collective expertise and commitment

of researchers, practitioners, and policymakers in advancing disaster risk management and resilience.



Electronic Newsletters

NBRO published three electronic newsletters in the year 2024



Enhancing Disaster Awareness and Preparedness

NBRO also undertook several initiatives to enhance disaster awareness and preparedness. The organization actively participated in exhibitions to showcase DRR interventions, distributing awareness materials such as rain gauge manuals, record books, and posters to engage and educate the public. Complementing these efforts, NBRO launched a media campaign, publishing three

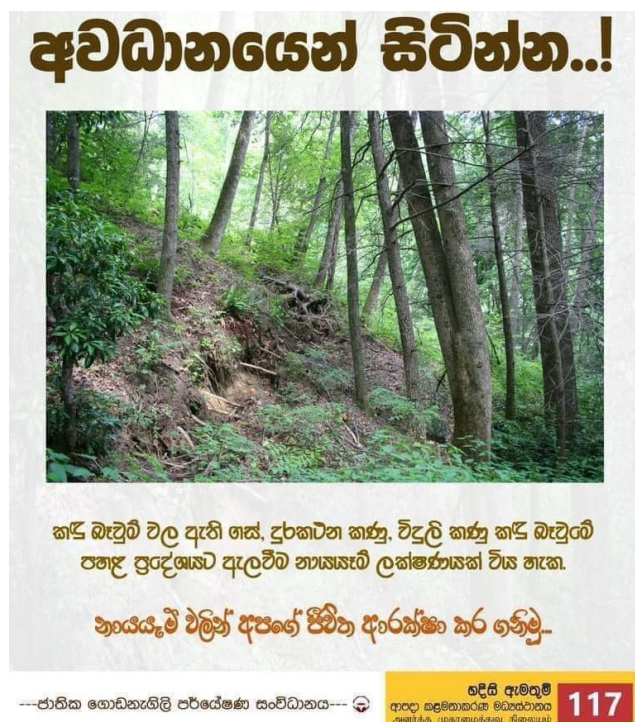
newspaper articles to promote DRR practices and increase public understanding. Furthermore, NBRO developed an e-learning platform (<https://moodle.nbro.lk/>) to provide stakeholders and the public with reliable resources for disaster preparedness and education. These initiatives collectively contribute to building community resilience, fostering a culture of safety, and strengthening disaster preparedness.



Guidelines Developed for Awareness Creation

Social Media Awareness Campaigns

The NBRO launched several public awareness programs on disaster preparedness, focusing on general safety tips, early warning updates, and guidelines to identify landslide symptoms. These initiatives were specifically tailored for the two monsoon seasons in 2024 and were disseminated through social media platforms, including Facebook and WhatsApp.



Awareness Material Developed for Social Media Awareness

TRAININGS, SEMINARS AND WORKSHOPS ORGANISED

In 2024, NBRO allocated LKR 11.75 million for capacity-building and community awareness programs aimed at enhancing resilience and preparedness for disaster risks. Key initiatives included:

Community-Based Awareness Program for Identified Landslide High-Risk Clusters

This initiative by NBRO aims to empower communities in landslide-prone areas to actively manage and mitigate disaster risks. Currently ongoing in the high-risk districts of Ratnapura, Badulla, and Nuwara Eliya, which have a combined total of 191 high-risk settlement clusters (62 in Ratnapura, 58 in Badulla, and 71 in Nuwara Eliya), the program is expected to expand to other landslide-prone regions in the future.

The Community-Based Disaster Risk Management (CBDRM) program establishes disaster management committees within these vulnerable clusters and collaborates with local authorities to develop

localized disaster management plans. It also facilitates real-time risk communication through tools such as mobile apps, dashboards, and platforms like WhatsApp. Communities are trained to monitor rainfall, interpret early warnings, and make informed decisions during emergencies.

Additionally, the program emphasizes educating residents about landslide risks, safe evacuation procedures, and sustainable land-use practices to reduce vulnerability.



CBDRM Workshop



Manual Rain Gauges Installed under CBDRM Program

The Guardians: Child-Centered Landslide Risk Management Program

The Guardians is an initiative by NBRO, in collaboration with the Ministry of Education, aimed at empowering schoolchildren in landslide-prone areas with the knowledge and skills to contribute to disaster preparedness. Implemented in 17 schools in 2024, the program included activities such as hazard identification, disaster risk education, and the installation of rain gauges for rainfall monitoring.

By engaging students, teachers, and communities, The Guardians fosters a culture of resilience and proactive disaster risk reduction. This initiative aims to create safer and more prepared communities across Sri Lanka.



During the Child Centered Landslide Risk Management Program

Risk Communication Using Awareness Hoardings

To enhance disaster awareness and risk communication, NBRO installed Awareness Hoardings in five Divisional Secretariat Divisions (DSDs): Kotapola, Palindanuwara, Katuwana, Ratnapura, and Harispattuwa. These hoardings are strategically placed at key public locations to provide critical information on landslide risks and safety measures.

By making essential details easily accessible, this initiative aims to educate local communities, promote preparedness, and strengthen their ability to respond effectively to potential disasters.



A Hoarding Installed at a Public Location

Facilitating External Institutes for Capacity Building on DRR

NBRO facilitated capacity-building programs for external institutions to enhance Disaster Risk Reduction (DRR) capabilities. These programs included training sessions for the General Sir John Kotelawala Defence University (KDU) and the tri-forces on landslide disaster management, laboratory visits, and specialized sessions on drone operations

for disaster response. Additionally, NBRO conducted training programs for Bangladeshi officials and ADPC delegates, fostering international collaboration. These initiatives aimed to strengthen the skills and preparedness of key stakeholders in effectively managing disaster risks.



During the the tri-forces Visit at NBRO Laboratories



Empowering Resilience Through Geospatial Intelligence

In 2024, the GeoAI Laboratory of NBRO successfully conducted a capacity-building program titled “GIS for Disaster Risk Reduction (DRR) Planning”, aimed at enhancing geospatial capabilities for disaster preparedness and mitigation. The program brought together over 30 officers from District Secretariat Offices, Divisional Secretariat Offices, the Disaster Management Center (DMC), and National Disaster Relief Service Centre (NDRSC) offices, fostering collaboration and skill development in geospatial technologies. Participants were introduced to GIS applications in DRR, engaged in hands-on training with tools like QGIS software, My Maps, and Google Earth Pro, and explored open data sources to support effective decision-making in disaster risk

reduction.

This initiative was made possible with the invaluable support of USAID’s Bureau for Humanitarian Assistance, Save the Children in Sri Lanka, and the Distance Learning Center - SL.



Capacity-building Program Conducted by NBRO

Knowledge-Sharing Session on the Significance of Aggregates in the Construction Industry

NBRO organized a knowledge-sharing session on the significance of aggregates in the construction industry. Held at the NBRO, the event was specifically designed for NBRO's technical divisions, offering professionals an opportunity to enhance their understanding of this critical topic. The session featured Mr. Altaf Halil, Managing Director of Triumphal Trading and Consultancy Services Pvt Ltd, as the keynote speaker.

Mr. Halil shared his extensive expertise, covering various aspects of aggregates, including their types, applications, and their impact on the quality and durability of construction projects. This session underscored NBRO's commitment to fostering

continuous learning and knowledge exchange among its technical staff, ensuring the organization remains at the forefront of construction industry advancements.



During the Knowledge Sharing Session

Workshop on Impact-based Forecast and Warning (IbFW)

NBRO hosted a brainstorming discussion on Impact-based Forecast and Warning (IbFW). The session was attended by Mr. N.M.S.I. Arambepola, Former Director of the Asian Disaster Preparedness Center (ADPC), Mr. B.V.P. Jayakody, Former Program Officer of NBRO, Prof. Terrance Fernando, Professor at the University of Salford, and representatives from various NBRO divisions. Facilitated by Mr. Susantha Jayasinghe, Senior Climate Data Specialist at ADPC, the discussion aimed to enhance NBRO's capacity in impact-based forecasting and early warning systems to improve community resilience.

The session focused on the functionality of IbFW, drawing insights from the decision support system piloted in Vietnam and its lessons learned. Eng. (Dr.) Asiri Karunawardena, Director General of NBRO,

emphasized the potential application of IbFW in Sri Lanka, particularly for addressing landslide risks. The discussion provided a clear direction for initiating IbFW for landslides in Sri Lanka, highlighting the importance of multi-stakeholder coordination.



During the IbFW Workshop

Strengthening Landslide Disaster Risk Reduction: Insights from Bangladesh–Sri Lanka Knowledge Exchange Visit to NBRO

Enhancing multi-hazard early warning systems is critical for strengthening disaster risk reduction frameworks, improving preparedness, response, and recovery measures. As part of this effort, the Asian Disaster Preparedness Center (ADPC) organized a knowledge exchange visit to Sri Lanka for the Ministry of Disaster Management and Relief (MoDMR) of Bangladesh, under the Bangladesh Preparedness Partnership (BPP), from May 6–9, 2024. During the visit, delegates from MoDMR engaged with the NBRO, Sri Lanka's national focal point for landslide disaster risk management.

On May 8, 2024, Eng. (Dr.) Asiri Karunawardena, Director General of NBRO, welcomed the delegation

led by Md. Kamrul Hasan ndc, Secretary of MoDMR. Discussions focused on sharing insights and experiences to enhance landslide disaster management mechanisms. Sri Lanka showcased its innovative practices in early warning systems, early action strategies, and advanced technical methodologies for landslide risk reduction.



Bangladesh-Sri Lanka Knowledge Exchange Session

NBRO Hosts Briefing Session for Child-Centered Landslide Disaster Risk Reduction Program

In a significant step toward mitigating landslide disaster risks in Sri Lanka, the NBRO launched the Child-Centered Landslide Disaster Risk Reduction (CCDRR) program. This initiative empowers schoolchildren to mitigate landslide risks and act as agents of change in the disaster risk reduction (DRR) process in landslide-prone areas. In collaboration with the Ministry of Education (MOE), NBRO aims to foster a sustainable and collective effort to address this critical issue.

To ensure a collaborative approach, NBRO organized a comprehensive briefing session involving key stakeholders from the government, private sector, and NGOs. Representatives from the MOE, UNICEF,

Save the Children, Red Cross, and the Gavesha Team participated, engaging in meaningful discussions to develop a unified strategy for reducing landslide risks. The CCDRR program's conceptual framework extends beyond schools, encompassing villages, towns, cities, districts, and provinces, ultimately contributing to a more resilient Sri Lanka.



Briefing Session on CCDRR

Landslide Awareness Workshops in Aranayake under SATREPS Project

NBRO in collaboration with the International Consortium on Landslides (ICL), organized a series of landslide awareness workshops in Aranayake under the SATREPS project in late March 2024. The programs targeted government officers and school children, equipping them with essential knowledge and skills to identify landslide risks through the concept of town watching. The initiative began on March 26 at the Aranayake Divisional Secretariat office, where 39 government officers participated in a comprehensive session.

Building on this success, interactive workshops were held at Hathgampola Primary School and Secondary School on March 27 and 28, engaging 60 primary students and 41 secondary students, respectively. The workshops, included town-watching field activities where students and teachers identified landslide risk areas in their surroundings. The

participants created and presented risk area maps, and certificates were awarded to all students.



SATREPS Workshop at Aranayake



SATREPS Workshop at Hathgampola Primary School

AUDIT & MANAGEMENT COMMITTEE REPORT

Audit & Management Committee Report

Audit and Management Committee Report of the National Building Research Organisation for the Year 2024

The composition of the Audit and Management Committee (AMC) of the National Building Research Organisation (NBRO) as of 31 December 2024 is as follows.

S/N	Name, Designation and Institute	Designation in the Committee
01	Mr. M.K.P.Kumara. Director General, Department of Trade and Investment Policies.	Chairperson
02	Mr. A.K.Karunanayake, Director General, Department of Meteorology.	Member
03	Mr. H.U.R. Fonseka, Chief Accountant, Disaster Management Division, Ministry of Defence.	Member
04	Mrs. R.S.M.I. Jayathilaka. Chief Internal Auditor, Disaster Management Division, Ministry of Defence.	Observer
05	Mrs. L.B.G. Sandamali. Audit Superintendent, National Audit Office.	Observer

Observations of the NBRO's Internal Audit Unit (IAU) on the audit queries issued by the National Audit Office were discussed at the AMC meetings. In particular, the Annual Internal Audit Plan prepared by the IAU of the organization for year 2024, was further reviewed and the audit observations and recommendations were made in relation to the organization's operational, control, and risk management processes. The AMC has made recommendations for improvement and rectification of these audit observations.

Accordingly, the roles set out in Financial Regulations 133 and 134, the instructions stated in the circulars of the Department of Management and Audit, Department of Public Enterprises, the Audit Standards of Sri Lanka and the provisions of the National Audit Act No. 19 of 2018 have been taken into consideration at the AMC, to guide the management of the NBRO to achieve the objectives of the Organisation. The quantitative and quality of the corrections and recommendations made by the organization, on the observations and recommendations of the AMC made in the audit queries and reports, were also examined.

Three (03) AMC meetings were held in the year 2024 and the Committee has directed the management to provide necessary guidance to maintain the internal control systems in a proper and accurate manner.

Mr. M.K.P.Kumara.
Chairperson- Audit and Management Committee
Director General,
Department of Trade and Investment Policies.

H.L.Ruwanthilaka.
Convenor- Audit and Management Committee
Internal Auditor,
National Building Research Organisation.

AUDITED FINANCIAL STATEMENTS

Statement of Financial Position as at 31st December 2024

LKR

	Annex No	As at 31.12.2024		As at 31.12.2023
Current Assets				
Cash and cash equivalents	1	104,710,095		59,593,612
Receivables	2	52,403,142		113,408,556
Trade Debtors				
Sundry Receivables	3	39,677,872	92,081,014	43,546,053
		196,888,635		216,548,221
Inventories	4	17,300,772		28,029,316
Receivables from staff	5	66,656,083		57,027,968
Pre-payments	6	12,644,722		17,892,008
Other Current Assets				
Project work in progress	7	133,673,409		99,307,574
Term Deposits	8	674,328,014	808,001,423	751,212,055
		1,101,394,109		1,170,017,141
Non - Current Assets				
Infrastructure, Plant & Equipment	9	666,189,083		338,357,547
Land and buildings	9	795,174,265		54,520,404
Intangible Assets	9	88,366,594		20,737,239
Leasehold land	9	7,965,000		7,965,000
New Lab Building Working in Progress		-		735,171,684
Mini Laboratories Work in Progress		-	1,557,694,942	1,380,000
		2,659,089,051		2,328,149,015
LIABILITIES				
Current Liabilities				
Payables				
Advance Received from Clients	10	294,696,005		379,533,198
Sundry payables	11	146,147,613	440,843,618	169,575,836
Non - Current Liabilities				
Long term provisions				
Provision for Gratuity	12	93,575,528	93,575,528	81,356,254
		534,419,146		630,465,288
Total Liabilities				
Net Assets		2,124,669,904		1,697,683,728
NET ASSETS / EQUITY				
Capital contributed by Government & Other entities	13	589,982,586		589,982,586
Reserves – Revaluation Surplus	13A	349,784,702		122,657,548
		939,767,288		
Accumulated Surplus/ (Deficit)				
Surplus brought forward	14	979,250,023		749,664,033
		205,652,593		235,379,561
Surplus for the year				
Net Assets / Equity		2,124,669,904		1,697,683,728

Statement of Financial Performance for the Year Ended 31st December 2024

LKR

Revenue	Annexure	Year 2024	Budget 2024	Year 2023
Revenue				
Environmental Studies & Services Division	15	81,568,203	104,000,000	63,326,050
Geo Technical Engineering & Testing Division	16	228,058,929	228,500,000	226,450,351
Landslide Research & Risk Management Division	17	256,215,320	252,000,000	208,493,060
Human Settlement Planning & Testing Division	18	48,796,391	57,000,000	44,675,761
Building Material Division	19	58,093,445	55,500,000	45,752,750
Project Management Division	20	152,528,776	156,000,000	68,091,580
Total Operating Revenue		825,261,064	853,000,000	656,789,552
Other Income	21	86,831,477	60,000,000	137,043,311
Total Revenue		912,092,541	913,000,000	793,832,863
LESS - Expenses				
Salaries, Wages and Employee Benefits	22	452,824,152	453,700,250	356,286,366
Supplies and consumables used	23	286,743,277	292,855,000	206,598,762
Depreciation	24	23,796,446	20,000,000	35,862,472
Impairment of Property, plant and Equipment	25	30,200,998	35,655,500	27,019,323
Other Expenses	26	21,255,834	24,771,000	20,956,938
Finance Cost	27	110,123	100,000	184,734
Total Expenses		814,930,828	827,081,750	646,908,595
Net Operating Profit before Tax		97,161,713	85,918,250	146,924,268
Income Tax		-	-	-
Levy for Consolidated Fund		28,686,161	25,775,475	44,077,280
Net Operating Profit after tax		68,475,552	60,142,775	102,846,987
Non Exchange Revenue	28	267,363,993	200,000,000	207,196,487
Less : Depreciation for Grant Assets & Consumables	24	130,186,951	92,850,000	74,663,914
Total Surplus for the year		205,652,593	167,292,775	235,379,560

Cash Flow Statement for the Year Ended 31st December 2024

LKR

	2024	2023
Surplus / (Deficit)	205,652,593	235,379,561
Adjustments		
Depreciation	125,216,158	76,540,986
Provision for Gratuity	19,502,157	9,822,587
Gratuity Payment	(7,282,883)	(15,407,021)
Under/Over provision for debtors	(113,795)	(131,814)
Under/Over provision for Income Tax Payable	-	(385,301)
Under/Over provision for Consolidated Fund Payable		(31,064,365)
Prior Year Adjustment	12,003,225	
Disposal of Fixed Assets	4,030,677	
Non Exchange Revenue	(267,363,993)	(207,196,487)
unrealized Interest Income	(14,629,053)	(32,971,196)
Operating Surplus(Deficit)before working capital changes	77,015,087	34,586,950
Changes in working capital		
Increase in Receivables	12,272,833	-4,179,027
Increase in Receivable from Staff	(9,628,115)	16,799,310
Increase in Pre payments	5,247,286	13,398,385
Increase in Inventories	10,728,544	(23,453,850)
Increase in Working In Progress	(44,478,332)	(20,752,184)
Increase in Deposits	76,884,041	(158,501,563)
Money Received from Client	(84,837,194)	83,679,590
Increase in Sundry Creditors	(23,428,222)	39,785,984
Net Cash flows from Operating Activities	19,775,927	(18,636,405)
Cash flows from Investing Activities		
Interest Income	67,343,610	95,600,344
Purchase of Fixed Assets	(42,003,055)	(32,012,008)
Disposal of Fixed Assets		
Net cash flow from Investment activities	25,340,555	63,588,336
Cash flows from Financing Activities		
Cash flows from Financing Activities	-	-
Net change in Cash and Cash equivalents	45,116,483	44,951,931
Cash and cash equivalents beginning of the period	59,593,612	14,641,682
Cash and cash equivalents as at 31.12.2023	104,710,094	59,593,613
Note- Cash and Cash equivalents		
Cash at Bank and hand	104,710,095	59,593,612
	104,710,095	59,593,612

Notes to Accounts

1. Basis of Accounting

Financial Statements have been prepared by Complying with generally accepted Accounting Principles, Fundamental assumptions, Public Sector Accounting Standards and Accounting Standards introduced by the Institute of Chartered Accountants from time to time and also by considering the followings.

- (a) Going Concern
- (b) Consistently Application of Accounting Policies.
- (c) Revenue and expenses recognition on accrual basis.
- (d) Disclosure to deviations to Standards

2. General Accounting Policies

2.1 Depreciation Policies.

- (a) Depreciation is provided based on number of days used
- (b) Fixed assets are depreciated on Straight Line basis using the following rates.

Fixed asset type	%
Buildings	2.5
Machinery and Lab Equipment	20
Furniture & Fitting	10
Vehicles	20
General Office Equipment	20
Computer Hardware & accessories	20
Computer Software	20
Drawing Office Equipment	10
Tools	50
Library Books	5
Fire Extinguishers	10
Advanced Laboratory Equipment	6.67
Advanced Software	6.67

2.2 Valuation of Closing Stock

Unutilized materials stocks have been valued at cost.

2.3 Provision for Gratuity

Provision for gratuity is calculated based on the Actuarial Valuation Method and payment is done based on the Gratuity Act

2.4 Provision for doubtful Debtors

A provision has been made for doubtful debts on the basis of;

- (a) 1 % Provision for debts outstanding over 2-10 years.
- (b) 25 % Provision for debts outstanding over 10 years.

2.5 Grant Received

Local and Foreign grants received for purchasing Property, Plant and Equipment were considered as non-exchange revenue as per the SLPSAS 11 and the incomplete portion of ongoing projects which are not recognized as income, carry out using grants were considered as current liabilities.

3. Revaluation of Property Plant & Equipment

3.1 The Effective Date of Revaluation

The Property, Plant & Equipment were revalued as at 31/12/2024

Laboratory Equipment of Building Material, Geotechnical Engineering, and Environmental Laboratories and motor vehicles purchased prior to 2017 were revalued as at 31/12/2023

3.2 Revaluation Committee

3.2.1 Property, Plant & Equipment other than Motor Vehicles

10 Revaluation Committees were appointed for each asset category comprising of four Executives including one expert for each category and a member from the line Ministry

3.2.2 Motor Vehicles

A member from Department of Motor Vehicles or government registered valuer were appointed to revalue the motor vehicles

3.3 Method of Revaluation

The following criteria was used to revalue the items considering the useful life, age, and salvage value

$$\text{Already Depreciated amount} = \frac{(\text{Cost} - \text{Salvage Value}) \times \text{Age}}{\text{Useful Life}}$$

$$\text{Revaluation} = \text{Cost} - \text{Already Depreciated amount}$$

Salvage Values of PPE were considered as follows;

Item	Salvage Value
Furniture & Fitting	0% to 10% from the purchase cost
Lab & Field Equipment	20% from the purchase cost
Rain Guage	0% from the purchase cost
Office Equipment	5% from the purchase cost
Computer Hardware & Accessories	Value based on the item
Computer Software	Nil
Plant & Machinery	5% from the purchase cost
Air Conditioners	5% from the purchase cost
Tools	Nil
Library Books	
Books published before 1900	No Value
Magazines	No Value
IT Books purchased before 2015	No Value
Books Published during 1900 - 1950	Rs. 100/-
Books Published during 1951 - 2000	Rs. 200/-
Books Published during 2001 - 2010	Rs. 300/-
Books Published during 2011 - 2017	Rs. 400/-
Based on the importance, content & Relevancy	Case by case basis
Not-usable Books	No Value

**Statement of Responsibility for Financial
Statements in terms of Sec. 7 A.**

AUDITOR GENERAL'S REPORT

Auditor General's Report is attached to Sinhala Copy

LAST 10 YEARS FINANCIAL HIGHLIGHTS

In 2024, NBRO recorded consolidated revenue of LKR 912.09 million inclusive of Revenue from customary NBRO services of LKR 597.31 million in 2024. The institution depends mostly on this consultancy revenue generated to meet its recurrent expenditure.

LKR.314.78 million. has been utilized for projects and programs carried out in year 2024 under government grant. The total consolidated expenditure for the corresponding period was LKR 814.9 million. A net

profit of LKR 97.2 million. is recorded.

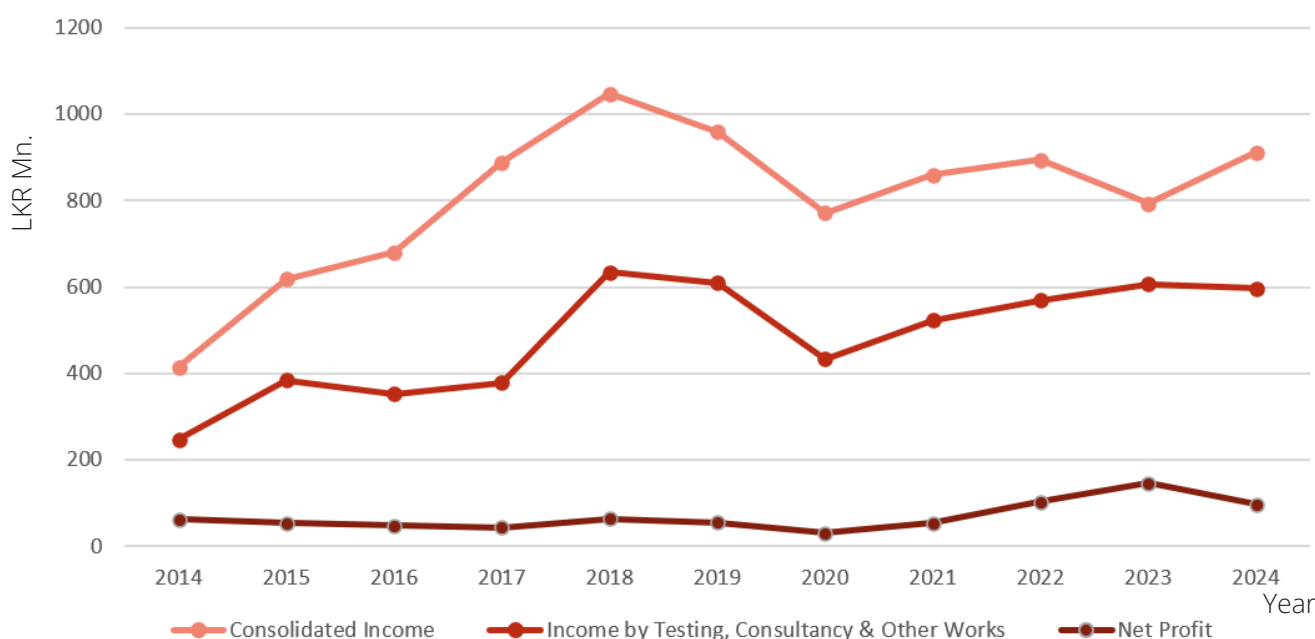
The expenses on personal emoluments for the staff strength of 428 including daily paid employees was LKR 452.82 million in 2024 as against the staff strength of 345 with daily paid employees was LKR 356.29 million In year 2023.

The institution growth and enhanced performance have been mainly due to the courageous effort of the management and the staff of NBRO.

Last 10 Years Financial Highlights

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Consolidated Income	619.18	681.2	888.7	1048.3	958.9	771.3	860.26	894.05 1072.55	793.8 1001	912.09 1,179.4 <<
Income by Testing, Consultancy & Other Works	384.63	352.89	379.64	634.11	610.71	433.21	523.42	569.32	606.64	597.31
Net Profit	53.55	47.9	43.8	63.7	55.2	30.2	54.5	103.6 266.98	146.9 235.4	97.2 205.6 <<

<< With non exchange revenue



CORPORATE GOVERNANCE REPORT

Human Resource/ Capacity Development

NBRO has set its Vision and Mission with the aim of enhancing its capacity to meet the Disaster Risk Reduction (DRR) needs of the Ministry. In alignment with this goal, NBRO is currently undertaking steps to formalize its mission through legislative means and to enhance staff capabilities to ensure the delivery of high-quality outputs.

In 2024, the institution prioritized the recruitment of several new employees to fill essential vacant technical positions. As a result, 17 staff officers were successfully recruited, comprising 13 Scientists, 2 Junior Managers, and 2 Primary staff members. There were 5 retirements recorded during this period.

No	Salary / Code	Staff Category	Approved Cadre	Staff Available (Permanent)	No of Vacancies (Permanent)	Staff Available (Other Basis)
1	HM 2- 3	Senior Manager (CEO)	01	01	-	-
2	HM 1-3	Senior Manager	08	06	02	-
3	AR2	Senior Academic/ Scientist	25	18	07	-
4	MM 1-1	Middle Management	12	04	08	-
5	AR 1	Academic/ Scientist	124	91	33	23
6	JM 1-1	Junior Management	25	25	-	-
7	MA 2-2	Management Assistant (Tech)	34	23	13	13
8	MA 1-2	Management Assistant (Non Tech)	55	44	09	12
9	PL 1,2&3	Primary	102	62	40	24
TOTAL			386	274	112	73

Recruitment, Retirements & Resignation of Permanent Staff in 2023

No	Sal/ Code	Staff Category	No of Recruitment	No of Resignations	No. of Retirement
1	HM 1- 3	Senior Manager (CEO)	-	-	-
2	HM 1-1	Senior Manager	-	-	-
3	MM 1-1/JM 1-1	Middle/ Junior Management	02	-	02
4	AR2	Senior Academic/ Scientist	-	-	-
5	AR 1	Academic/ Scientist	13	11	01
6	MA 2-2	Management Assistant (Tech)	-	01	-
7	MA 1-2	Management Assistant (Non Tech)	-	01	01
8	PL 1,2&3	Primary	02	03	01
	TOTAL		17	16	05

Staff Training / Attending Workshops & Seminars

NBRO Nominated below employees for foreign training programmes and higher studies opportunities. 02 Scientist were Selected for Masters /Ph.D. Programmes abroad as given below

NO	Name	Designation division	Training Program	Period	Country
1	Mr. R.R.D. Ranjana	Scientist	JICA Knowledge Co-Creation Program; Comprehensive Disaster Risk Reduction (19th Dec. - 13th Jan 2024 - Online/ 174th Jan. - 22nd Feb. - Physical)	19.12.2023 - 22.02.2024	Japan
2	Mr. H.D.S. Premasiri	Director (Technical)	Capacity Development for Evidence - Based Improvement of Strategies and policies on Air Quality Management (AQM) in Sri Lanka	24.06.2024 - 28.06.2024	France
3	Mr. N.D.C. Lakmal	Scientist	Capacity Development for Evidence - Based Improvement of Strategies and policies on Air Quality Management (AQM) in Sri Lanka	24.06.2024 - 28.06.2024	France
4	Dr. K P G W Senadeera	Senior Scientist	JICA Counterpart Training on Project for Capacity Building of Meteorological observations, Weather forecasting & warning issuance of weather, radar	15.07.2024 - 27.07.2024	Japan
5	Mr. T P C Mahesh	Scientist	Training Course on Application of Fengyun Meteorological Satellites in Disaster Prevention and Mitigation for Developing Countries	05.10.2022 - 30.09.2024	Japan
6	Mr. W M S H Barammane	Scientist	Training Course on Application of Fengyun Meteorological Satellites in Disaster Prevention and Mitigation for Developing Countries	05.10.2022 - 30.09.2024	Japan
7	Mr. M D S S Karunarathne	Scientist	post-doctoral research Work	05.10.2024 - 07.10.2025	Japan
8	Ms. H A A I S Bandara	Scientist	PhD - JICA Long Term Training (Master's Program) under the "Project on Development of Early Warning Technology of Rain - Induces Rapid and Long Travelling Landslides" (SATREPS) in Sri Lanka	01.10.2024 - 30.09.2027	Japan

Annexures to Financial Statements

Annexure 01

Cash and Cash Equivalents

LKR

Description	2024	2023
Cash and Bank - Head Office (Current Ac Integrated with Savings Ac and Money Market Ac)	92,848,883	51,376,490
Cash and Bank – District Office	449,285	355,627
Cash and Bank – District Office (Collection Account)	11,048,523	7,034,129
Credit Card Control Account	1,515	38,567
Cash	361,889	788,799
	104,710,095	59,593,612

Annexure 02

Receivables – Trade Debtors

LKR

Description	2024	2023
Trade Debtor	52,403,142.4	113,408,556
	52,403,142	113,408,556

Annexure 03

Sundry Receivables

LKR

Description	2024	2023
Receivable Tender Payments	-	101,062
Receivable Other Payments	14,118,121	2,910,454
Sundry Receivable D/O	101,928	195,586
Interest receivable	14,629,053	32,971,196
Receivable from RLVMMP	384,683	1,753,045
Other Receivables - Fuel	58,784	162,586
Income Tax Refund	10,385,303	5,452,125
	39,677,872	43,546,053

Annexure 04

Inventories

LKR

Description	2024	2023
Printing and Stationary	4,336,923	3,251,721
Chemical and Glassware	2,244,122	2,097,189
Monitoring Equipments	10,719,727	22,680,406
	17,300,772	28,029,316

Annexure 05

Receivables from Staff

Description	LKR	
	2024	2023
Festival Advance	55,500	134,250
Special Salary Advance	2,400	2,400
Travelling & Subsistence Advance	14,851	15,101
Special Cash Advance	55,354	23,022
Distress Loan	23,458,323	14,955,829
MSC Loan	7,500	7,500
Other Advances	1,483,232	754,700
Staff Vehicle Loan	13,087,676	16,372,074
Staff housing Loan	28,491,247	24,763,093
	66,656,083	57,027,968

Annexure 06

Pre-Payments

Description	2024	2023
Advances to Contractors	5,896,938	12,867,201
Other Pre Payments	6,747,784	5,024,806
	12,644,722	17,892,008

Annexure 07

Project Work in Progress

Description	LKR	
	2024	2023
Project Management Division	-	331,579
Geo Technical Engineering & Testing Division	127,978,157	95,503,271
Human Settlements Planning & Training Division	2,980,000	3,472,724
Environmental Studies & Services Division	2,715,252	
	133,673,409	99,307,574

Annexure 08

Term Deposits

Description	LKR	
	2024	2023
Term Deposit	674,298,014	751,182,055
Employee Security deposit investments	30,000	30,000
	674,328,014	751,212,055

Annexure 09

Infrastructure, Plant & Equipment

Cost

LKR

Description	2024	2023
Lab and Field Equipment & Plant & Machinery	229,732,479	420,247,458
Vehicles	232,690,500	113,653,397
Office Equipment	34,008,620	73,953,165
Computer Hardware & Assessories	87,097,132	150,264,094
Furniture and Fittings	28,023,505	27,272,845
Drawing Office Equipment	0	301,109
Library books and Periodicals	1,302,629	4,551,922
Tools	78,700	1,928,794
Fire Extinguishers	-	162,441
Advance Laboratory Equipment	79,600,000	
	692,533,565	792,335,225

Provision for Depreciation

Description	2024	2023
Pro. For Machinery & Lab equipment's	7,834,382	243,866,086
Pro. For Dep. Of Vehicles	16,793,360	55,830,157
Pro. For Dep. Of Office equipment's	330,650	61,795,723
Pro. for Dep. Computer Hardware & Assessories	931,383	66,961,589
Pro. For Dep. Of Furniture & Fittings	349,120	19,371,947
Pro. For Dep. Of drawing Office equipment's	0	301,109
Pro. For Dep. Of Books	105,588	3,792,543
Pro. For Dep. Of Tools	0	1,909,937
pro. For Dep. Of Fire extinguishers	(0)	148,588
pro. For Dep. Of Advance Laboratory Equipment	-	
	26,344,482	453,977,679

Net book Value

Description	2024	2023
Lab and Field Equipment & Plant & Machinery	221,898,097	176,381,372
Vehicles	215,897,140	57,823,240
Office Equipment	33,677,970	12,157,442
Computer Hardware & Assessories	86,165,749	83,302,504
Furniture and Fittings	27,674,385	7,900,898
Drawing Office Equipment	-	0
Library books and Periodicals	1,197,041	759,379
Tools	78,700	18,857
Fire Extinguishers	0	13,853
Advance Laboratory Equipment	79,600,000	-
	666,189,083	338,357,547

Land and Building

Cost

LKR

Description	2024	2023
Land and Building	834,107,913	68,166,930
	834,107,913	68,166,930

Provision for Depreciation

Description	2024	2023
Land and Building	38,933,648	13,646,526
	38,933,648	13,646,526

Net book Value

Description	2024	2023
Land and Building	795,174,265	54,520,404
	795,174,265	54,520,404

Intangible Assets

Cost **LKR**

Description	2024	2023
Compute Software	93,072,815	41,023,904
	93,072,815	41,023,904

Provision for Depreciation

Description	2024	2023
Compute Software	4,706,220	20,286,665
	4,706,220	20,286,665

Net book Value

Description	2024	2023
Compute Software	88,366,594	20,737,239
	88,366,594	20,737,239

Leasehold Land

Cost **LKR**

Description	2024	2023
Leasehold Land - Ratnapura (Note *)	7,965,000	7,965,000

The physical possession was given to NBRO by the UDA for the land allocated to construct District Office Building in Ratnapura District by their letter no. UDA/SABARA/27/06/147 dated 8.10.2020.

However, the agreement signing is being pending from UDA, and by their letter dated 26.08.2022 has informed NBRO that the vesting certificate is pending from the Land commission and Divisional Secretariat as per the Land Ordinance, Section 6 (1), and UDA will take necessary action to sign the lease agreement upon the receipt of vesting certificate.

Annexure 10

Advance Received from Clients

Description	LKR	
	2024	2023
Environmental Studies & Service Division	8,822,339	3,087,000
Geo Technical Engineering & Testing Division	39,342,825	103,150,444
Money Received from Client CRIP		-
Human Settlements Planning & Training Division	110,430,238	131,534,981
Project Management Division	134,280,742	140,059,180
Unidentified Credits	1,819,861	1,701,593
	294,696,005	379,533,198

Annexure 11

Sundry Payables

Description	2024	2023
Accrued Expenses	23,020,354	23,508,710
Repayable tender deposits	240,000	818,717
Repayable retention deposits	19,178,375	28,210,573
Repayable security deposits	174,596	174,596
Excess from customers	441,233	388,908
Payables to Contractors/Other	38,331,580	7,331,003
Provision for Leave Encashment	10,465,497	8,793,845
Provision for Bonus/Performance Incentive	-	1,890,711
Provision for Audit Fee	560,000	500,000
Provision to Janitorial Payment	450,000	-
Salary Payable	4,499,853	1,001,893
EPF Payable	5,035,115	3,842,191
ETF Payable	687,296	524,249
Stamp Duty Payable	21,875	20,750
VAT	10,550,469	16,082,488
SSCL Payable	436,362	1,123,750
PAYE Tax	299,848	169,307
WHT Payable	69,000	52,500
Levy for Consolidated Fund Payable	28,686,161	75,141,646
Symposium Award Payable	3,000,000	
	146,147,613	169,575,836

Annexure 12

Provision for Gratuity

Description	LKR	
	2024	2023
Opening Balance	81,356,254	86,940,688
Charge for the Year	19,502,157	9,822,587
Payments made during the year	(7,282,883)	(15,407,021)
Closing Balance	93,575,528	81,356,254

Annexure 13

NET ASSETS / EQUITY

Capital contributed by Government & Other entities

Description	2024	2023
Balance	589,982,586	589,982,586

Annexure 13A

REVALUATION RESERVE AS AT 31/12/2024

Description	Balance as at 31/12/2024	Removal of Cost on Revalued Assets	Removal of Provision for Depreciation on Revalued Assets	Revaluation as at 31/12/2024	Balance as at 31/12/2024
Machinery & Lab Equipment	63,866,503	376,282,544	287,710,674	168,210,000	143,504,633
Vehicles	57,083,493	50,972,897	50,972,897	93,510,000	150,593,493
Office Equipment	1,433,667	60,102,868	51,803,630	28,737,000	21,871,429
Computer H/W & Accessories	-	140,508,849	77,152,613	81,706,000	18,349,764
Computer S/W	-	35,927,924	20,390,673	20,560,000	5,022,750
Furniture & Fittings	273,885	22,471,747	17,557,892	14,618,000	9,978,030
Books	-	4,208,911	3,785,835	816,000	392,924
Tools	-	188,728	181,707	78,700	71,679
Total	122,657,548	690,664,466	509,555,920	408,235,700	349,784,702

Annexure 14

ACCUMULATED SURPLUS/ (DEFICIT)

	LKR	
	2024	2023
Opening Balance	749,664,033	471,508,338
Add		
Profit for the previous year	235,379,560	266,985,727
	985,043,593	738,494,065
Add		
Prior Year Adjustment	(5,793,569)	11,169,967.9
Balance C/F	979,250,023	749,664,033

Divisional Revenue & Expenditure

Annexure 15

Environmental Studies & Service Division

Description	2024			2023		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
ESSD Head Office activities	81,168,203	76,454,766	4,713,437	63,326,050	59,905,368	3,420,682
Building Assessment Project	400,000	315,390.42	84,610	-	-	-
	81,568,203	76,770,156	4,798,047	63,326,050	59,905,368	3,420,682

Annexure 16

Geo Technical Engineering & Testing Division

Description	2024			2023		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
GED Head Office activities	219,252,503	204,475,267	14,777,235	198,796,450	182,606,948	16,189,502
Landslide Mitigation Project	17,904,198	17,453,807	450,391	8,222,891	7,890,000	332,891
SATREPS	6,016,429	5,939,405	77,024	3,104,933	6,768,577	-3,663,644
RLVMMP - Supervision	2,789,997	4,289,498	-1,499,501	24,548,968	26,564,361	-2,015,393
	228,058,929	214,704,170	13,354,759	226,450,351	215,939,886	10,510,465

Annexure 17

Landslide Research and Risk Management Division

Description	2024			2023		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
Automated raingauges project	15,245,860	15,215,092	30,768	10,000,000	9,933,170	66,830
Landslide hazard Zonation Mapping	13,622,544	14,331,053	-708,510	14,266,250	14,165,387	100,863
SATREPS	988,400	988,400	0	65,109,545	58,494,185	6,615,359
Landslide Mitigation Projects	4,662,765	3,712,067	950,698	63,830,591	62,129,263	1,701,328
Building approval process	83,553,917	83,308,578	245,339	-	-	0
Land Investigations	63,341,181	63,908,526	-567,346	-	-	0
Consultancies	74,800,653	58,560,574	16,240,079	55,286,674	57,505,230	-2,218,556
	256,215,320	240,024,292	16,191,028	208,493,060	202,227,234	6,265,826

Annexure 18

Human Settlement Planning & Testing Division

Description	2024			2023		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
HSD Head Office activities	15,046,519	12,023,169	3,023,350	16,334,511	15,939,513	394,999
Landslide hazard Zonation Mapping	5,000,000	4,828,348	171,652	5,000,000	4,767,413	232,587
Precast Housing Project	5,027,500	4,818,173	209,327	2,341,250	1,896,101	445,149
Special Investigations	4,230,000	4,138,894	91,106	5,000,000	4,558,816	441,184
Landslide Risk Profile	19,307,372	18,959,481	347,891	16,000,000	15,616,640	383,360
SATREPS	185,000.00	188,099.20	(3,099)	-	-	0
	48,796,391	44,956,165	3,840,226	44,675,761	42,778,482	1,897,279

Annexure 19

Building Materials Division

Description	2024			2023		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
Head Office activities	53,500,415	49,926,025	3,574,390	43,072,382	40,179,765	2,892,617
Building Assessment Project	4,593,030	4,297,222	295,808	2,368,175	2,263,779	104,396
RLVMMP - Supervision			0	312,193	475,799	-163,606
	58,093,445	54,223,247	3,870,198	45,752,750	42,919,343	2,833,407

Annexure 20

Project Management Division

Description	2023			2022		
	Income	Expenditure	Surplus/ (Deficit)	Income	Expenditure	Surplus/ (Deficit)
PMD Head Office activities	40,271,351	25,961,896	14,309,455	44,974,122	31,606,366	13,367,756
Building Assessment Project	30,701,272	30,286,289	414,983	16,490,439	16,275,490	214,949
Landslide Mitigation Projects	81,556,153	79,995,723	1,560,430	5,850,002	5,086,454	763,548
RLVMMP - Supervision				777,017	1,435,633	-658,616
	152,528,776	136,243,908	16,284,868	68,091,580	54,403,943	13,687,637

Annexure 21

Other Revenue

Description	2024	2023
Interest Income	81,972,663	128,571,539
Surcharge, bond& interest on distress loans	3,610,589	4,143,772
Disposal Income	(3,142,182)	-
Non Refundable Tender Deposit	4,261,907	4,242,500
Registration Fee	128,500	85,500
	86,831,477	137,043,311

Annexure 22

Salaries, Wages and Employee Benefits

Description	2024	Budget 2024	2023
Salaries	214,058,418	221,000,000	194,501,538
Wages	55,228,780	43,900,000	41,840,997
Over Time and Holiday Payments	16,068,250	17,450,000	15,029,672
Risk Allowance	36,000	36,000	56,250
Special Allowance	13,890,205	16,400,000	14,486,882
Contribution to EPF - 12%	29,562,883	35,567,400	24,023,441
Contribution to ETF - 3%	7,390,722	8,891,850	6,005,861
Performance Incentives	22,413,050	30,480,000	1,890,711
Consultant's Payments	7,881,000	6,250,000	4,740,669
Encashment of Medical leave	10,704,127	13,500,000	5,989,580
Employee Insurance Scheme	9,792,883	8,700,000	7,312,760
Staff trainings - Foreign	88,922	50,000	26,400
Staff trainings - Local	1,834,359	175,000	125,459
Seminar & Workshop	614,546	1,900,000	494,341
Bonus	6,065,209	6,375,000	1,981,417
Travelling & Subsistence	24,740,034	21,125,000	20,366,028
Travelling - Foreign	1,618,700	3,250,000	1,339,335
Employee welfare	8,333,910	5,150,000	6,252,436
Gratuity	19,502,156	13,500,000	9,822,587
Symposium Awards	3,000,000		
	452,824,152	453,700,250	356,286,366

Annexure 23

Supplies and Consumables used

Description	2024	Budget 2024	2023
Sub Contract Payment	133,679,668	139,475,000	73,986,296
Transport	48,395,360	40,900,000	35,344,362
Telephone and Postage	9,181,466	8,800,000	8,787,592
Electricity	21,473,718	24,680,000	15,742,575
Water	1,442,542	1,050,000	845,246
Rates and Taxes	363,402	20,000	17,000
Janitorial Services	5,646,018	4,010,000	3,233,090
Advertising	2,638,700	1,250,000	3,503,380
Hire charges - Equipment's	1,590,439	710,000	1,514,745
Printing and Stationary	8,688,667	8,850,000	7,367,006
Chemical & Glassware	768,872	650,000	155,008
Other Materials	23,452,083	26,075,000	24,949,766
Fuel	25,482,805	30,350,000	27,641,258
Security charges	2,873,315	3,500,000	2,928,927
Survey Maps	7,200	100,000	89,200
Information Technologies	912,514	2,435,000	493,310
Document processing Charges	146,510		
	286,743,277	292,855,000	206,598,762

Annexure 24

Depreciation

Description	2024	Budget 2024	2023
Depr. Of Land & Buildings	7,989,716		424,833.22
Depr. Of Computer Hardware & Accessories	3,685,524		4,958,115.19
Depr. Of Computer Software	1,365,248		1,648,590.71
Depr. Of Lab & Field Equipment's	6,374,256		24,064,046
Depr. Of Office Equipment's	2,000,054		2,479,822
Depr. Of Furniture & Fittings	2,278,373		2,176,790
Depr. Of Vehicle		20,000,000	0
Depr. of Library Books & Periodicals	88,668		91,852
Depr. Of Tool	11,836		4,815
Depr. Of Fire Extinguisher	2,771		13,608
Depr. Of Advance Laboratory Equipment			
Depr. Of Advanced Software			
	23,796,446	20,000,000	35,862,471

Depreciation for grant & Fully Depreciated Re-valued Assets & Other

Description	Budget 2024	2023	
Depr. Of Land & Buildings	12,609,262		1,279,339.78
Depr. Of Computer Hardware & Accessories	16,847,705		5,468,361
Depr. Of Computer Software	4,625,077		1,534,777
Depr. Of Lab & Field Equipment	50,169,644		30,041,625
Depr. Of Office Equipment	2,187,148		928,854
Depr. Of Furniture & Fittings	185,437		25,163
Depr. Of Vehicle	12,436,100	92,850,000	1,400,000
Depr. of Library Books & Periodicals	394		394
Depr. Of Tool			
Depr. Of Fire Extinguisher			
Depr. Of Advance Laboratory Equipment			
Depr. Of Advanced Software	2,358,944		
	101,419,712	92,850,000	
Other			
Other Material	26,817,239		33,985,400
Staff Training (Grant)	1,950,000		
	28,767,239		
	130,186,951	92,850,000	74,663,914

Annexure 25

Impairments of Property, Plant & Equipment

Description	2024	Budget 2024	2023
R & M Of Building	1,517,364	217,500	310,282
R & M Of Plant and Machinery	1,104,330	2,350,000	1,882,475
R & M Of Vehicles	19,277,523	19,250,000	14,693,088
R & M Of Photocopiers	1,422,629	2,150,000	2,655,832
R & M Of Computers	1,878,546	3,025,000	2,820,184
R & M Of Other Office equipment		1,260,000	372,321
R & M of Machinery & Lab Equipment	3,894,740	7,050,000	3,999,929
R & M Of Office equipment	1,103,667	50,000	74,089
R & M Of Furniture & Fittings	2,200	303,000.00	211,125
	30,200,998	35,655,500	27,019,323

Annexure 26

Other Expenses

Description	2024	Budget 2024	2023
Rent	13,430,400	17,600,000	14,190,035
Safety Equipment	876,768	655,000	331,430
Sundry Expenses	97,312	175,000	134,119
Subscription & Memberships	690,766	1,120,000	541,955
Publicity/ Exhibition		200,000	100,000
Insurance - Life	1,592,479	2,075,000	1,770,256
Audit fees	612,000	550,000	492,000
Payment to board members	293,475	350,000	329,950
Chairman's Emoluments	225,000	350,000	262,500
Refreshments	1,081,490	1,490,000	1,321,982
Registration Fee	138,546	95,000	143,791
Legal Fee	162,508		-
Donations	40,500	110,000	10,000
Custom Clearance Charges		1,000	38,231
Site Expenses	1,827,520		1,158,875
Bad Debts	113,795		131,814
Losses from Vehicle accidents	73,275		
Total	21,255,834	24,771,000	20,956,938

Annexure 27

Finance Cost

Description	2024	Budget 2024	2023
Bank Charges	110,123	100,000	184,734
	110,123	100,000	184,734

An Amount of Rs. 17,552,988 incurred for Research & Development was included in above expenses.

Annexure 28

Non Exchange Revenue

Item	Doner Agency	2024	Budget 2024	2023
Fire Wall	GOSL			3,599,296
Rain Gauge	GOSL			1,089,000
Landslide Monitoring Equipment	JICA	16,698,171	20,000,000	32,895,841
Clearance Expences	GOSL	2,810,171	3,000,000	10,625,067
Property, Plant & Equipment	JICA			49,490,088
Seismograph Monitoring Equipment	JICA			17,193,225
Property, Plant & Equipment	CResMPA	88,450,000	90,000,000	83,585,302
Property, Plant & Equipment	Ministry of Investment Promotion	4,146,332	4,000,000	430,000
Property, Plant & Equipment	GOSL			5,570,234
Ratnapura Building	GOSL			2,718,434
Software	JICA	24,561,821	25,000,000	
Software	CResMPA	34,580,398	35,000,000	
Property, Plant & Equipment	RLVMMP	12,087,900	23,000,000	
Consumables	RLVMMP	79,200		
Training Programme	CResMPA	1,950,000		
Property, Plant & Equipment	DMD	5,000,000		
Vehicles	Ministry of Irrigation	77,000,000		
		267,363,993	200,000,000	207,196,487

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