National Engineering Research and Development Centre - 2022

1. Financial Statements

1.1 Opinion

The audit of the financial statements of the National Engineering Research and Development Centre ("Centre") for the year ended 31 December 2022 comprising the statement of financial position as at 31 December 2022 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with provisions of the National Audit Act No. 19 of 2018 and Finance Act No. 38 of 1971. My comments and observations which I consider should be report to Parliament appear in this report.

In my opinion, the accompanying financial statements give a true and fair view of the financial position of the Centre as at 31 December 2022, and of its financial performance and its cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

1.2 Basis for Opinion

I conducted my audit in accordance with Sri Lanka Auditing Standards (SLAuSs). My responsibilities, under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

1.3 Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with Sri Lanka Public Sector Accounting Standards, and for such internal control as management determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Centre's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intend to liquidate the Centre or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Centre's financial reporting process.

As per Section 16(1) of the National Audit Act No. 19 of 2018, the Centre is required to maintain proper books and records of all its income, expenditure, assets and liabilities, to enable annual and periodic financial statements to be prepared of the Centre.

1.4 Auditor's Responsibilities for the Audit of the Financial Statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sri Lanka Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Sri Lanka Auditing Standards, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Centre's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- Conclude on the appropriateness of the management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Centre's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Centre to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

The scope of the audit also extended to examine as far as possible, and as far as necessary the following;

• Whether the organization, systems, procedures, books, records and other documents have been properly and adequately designed from the point of view of the presentation of information to enable a continuous evaluation of the activities of the Centre, and whether such systems, procedures, books, records and other documents are in effective operation;

- Whether the Centre has complied with applicable written law, or other general or special directions issued by the governing body of the Centre;
- Whether the Centre has performed according to its powers, functions and duties; and
- Whether the resources of the Centre had been procured and utilized economically, efficiently and effectively within the time frames and in compliance with the applicable laws.

1.5 Non-compliance with Laws, Rules, Regulations and Management Decisions etc.

	Reference to Laws, Rules Regulations etc.	Non-compliance	Management Comment	Recommendation
(a)	Section XLVIII 13.1 of Establishmen t Code and State Administrati ve Circulars No. 14/2014 and 18/2018 dated 30 May 2014 and 31 July 2018	Investigation committees were appointed and investigations were conducted without identifying any suspicion of misconduct or specific information regarding 6 officers including the Director General and Deputy Director General (Research and Development). Contrary to the circulars Rs. 4,035,135 and Rs. 1,170,209 were paid as allowances and for transportation facilities respectively.	The Ministry of Education approved the payments based on the decisions of the Board of Directors as stated in the letter MSVRI/ADM/30/01/08, dated 17.01.2022.	An inquiry committee should be appointed based on specifically identified facts or reasonable suspicion and payments should adhere to the provisions of the circulars and the Establishment Code.
(b)	Section XLVIII 31.1of the Establishmen t Code ofthe Democratic Socialist Republic of Sri Lanka	The Deputy Director General (Research and Development) had been placed on compulsory leave from 07 June 2022 by the Chairman and the Board of Directors without being found guilty of misconduct. Without receiving his service, salary of Rs.1,008,160 and legal fees of Rs.75,000 were paid. These expenses became idle due to a court order issued against his reinstatement.	The officer who served as Deputy Director-General (Research and Development) of the institute has been compulsorily retired for six months, effective from 07.06.2022. After legal actions were taken, he was reinstated on 21.11.2022. Considering that he was continuously employed until 31.12.2022, his basic	Disciplinary action against employees should be based on specific and clear facts, and human resource management should be conducted appropriately.

salary all other and allowances related to the position have been paid in accordance with the supervisory order. A copy of the draft annual report After finalizing the should be submitted to the institution's accounts, the Auditor General within sixty annual report for the year (60) days after the close of the 2022 is currently being financial year. However, it was prepared and will be not submitted even by 10 May submitted upon

completion

obstacles

of

in

activities. This has been particularly affected by

executive-grade vacancies

within the organization.

related

filling

The relevant reports should be submitted to the Auditor General on the appointed date.

2. Financial Review

Paragraph

6.6 of the

Operational

Guidelines

the

Owned

dated

2021.

Enterprises

November

No. 01/2021

Manual for

State

 16^{th}

2023, the date of the audit.

(c)

2.1 Financial Result

The operating result of the year under review amounted to a surplus of Rs.18,644,297and the corresponding surplus in the preceding year amounted to Rs.18,989,410. Therefore an deterioration amounting to Rs.345,113 of the financial result was observed. Whether the other income has increased by Rs.13,752,051, it was mainly due to the increase in administrative expenses by Rs.29,529,399.

3. **Operational Review**

3.1 Management Inefficiencies

Audit Issue

(a) Capital grants allocated for capital expenses must be expended within the relevant year. Any remaining amount should be disclosed along with the expected expenses. However, in the year under review and previous years, an amount of Rs. 8,551,327 remained from the capital grants given to the institution, and the expected expenses from that amount were not disclosed.

Management Comment

Occasional delays in governmentprovided capital funds necessitate using the remaining capital funds for research activities.

Recommend ation The

expenditure of capital grants should be disclosed.

- (b) In July 2001, a CNC Milling machine with a 2,500 KG capacity was acquired under the Asian Development Bank loan project for the value of Rs. 26,488,211. In 2014 and 2015, it underwent repairs, including the purchase of accessories, at a cost of Rs. 10,441,338. After completing the repairs, the center procured another CNC Milling machine with a lower capacity (2,200 KG) in 2017 at a cost of Rs. 26,150,497. Considering the limitations of the first machine, funds spent on purchasing another machine have been wasted.
- (c) The Director of Human Resource Management at the center was transferred to the Industrial Park without any assigned duties effective from 07 February 2022. The initial investigation report was submitted on 17 October 2022, and Rs. 3,047,473 was paid as salary up to 06 April 2023 without submitting indictment sheets, resulting in idle labor costs.
- (d) The following projects were halted midway because they were initiated without conducting pre-feasibility studies on crucial aspects such as project economy, employee recruitment, and fund availability.
 - i. The following projects were halted midway because they were initiated without conducting prefeasibility studies on crucial aspects such as project economy, employee recruitment, and fund availability. The estimated cost for three projects those was

The Technical Incubator Division, essential at that time, was established in collaboration with the Inventors' Commission in 2017 to provide technical assistance to inventors. The Inventors Commission granted a CNC Milling machine to the Incubator Division to support the provision of services. It was also considered that problems occasionally occurred with the 20year-old CNC Milling machine owned by the Incubator Division.

The institute's machines should be used efficiently and effectively to achieve its goals.

As part of the investigation into the entire management of the company and with the goal of conducting these investigations transparently, Ms. D.A.M. Munasinghe, who served as the Director (Human Resources) of the institution, has been reassigned to the Technical Park effective 07.02.2022. The investigation committee issued a charge sheet against that officer, and it was handed over to the Director (Human Resource) on 27.04.2023, following the advice of the board of directors of the institution.

Human resources should be managed to achieve maximum results for the organization.

The main objective of this project was to address the major drawbacks of the straditional tile manufacturing process, sincluding a 20 percent tile damage and waste rate, extended drying times to during the rainy season, and the minimization of worker insecurity so during tile drying in a dryer. The

Projects should be selected following a thorough feasibility study.

Page5 | 9

Rs.11,500,000. However, at the time of suspension, the actual cost spent was Rs. 5,674,005. Subsequently, the projects were halted midway due to the inability to secure funds.

design created by NERDC was accepted by the tile manufacturers. However, it was observed that there is a need for improvement in the mechanical process designed for the movement and removal of tile racks. An additional amount of 2.5 million was requested from the Ministry of Trade and Industry. This project could not continue due to a lack of funding, despite the requests made.

* The Design and Development of a Beach Litter Removal Machine project and the Design, Development, and Pilot Testing of a barge for the Collection of Floating Trash from a canal project were jointly planned for implementation by the Marine Environment Authority (MEPA) using their funds, it was communicated in writing that a temporary suspension had been decided due to a lack of provisions to cover the relevant expenses.

(ii) Three projects AE & MD/RES/10/2021 Design Modification and Performance Evaluation of Railway Compartment for Vegetable and Fruits Transportation, ENED/RES/39/2022 Investigation of Vibration, Application of Methods to Vibration, and Implementing Reduce Remote Vibration Sensors (for the Radial Gates at Deduru Oya), and N/MED/CRES/NHSL/30/2018 Pneumatic Tubing System for Transport of Clinical Samples—were halted midway. This occurred after incurring an expenditure of Rs.1,734,795 out of the estimated cost of The design work related to the AE & MD/RES/10/2021 project was completed in the first phase, following the Memorandum of Understanding between two government agencies, the Sri Lanka National Engineering Research and Development Center (NERDC) and the National Institute of Postharvest Management (NIPHM). The associated report has been handed over to NIPHM.

* The preliminary study for the Development of Deduru Oya Sluice

Projects should be selected after a thorough feasibility study. Rs.2,954,000 by the end of the year under review.

iii. Two projects, namely the Adaptive Controlled Smart Office/Smart Building project (RED/RES/29/2020) and the A Security Robot for Real-Time Monitoring and Capturing using Android Mobile - Phase 02 project (N/MD/RES/85/2017-1/2018), were abandoned midway due to the resignation of officers in the team and a shortage of engineering staff. An amount of Rs. 1,345,345 had been spent, exceeding the estimated cost of 1,140,000 Rs. at the time of abandonment.

Gates project under ENED/RES/39/2022 was conducted, and the Memorandum of Understanding was prepared and sent to the relevant government authority. Due to a lack of a favorable response, the decision was made to suspend the project midway.

* The project with the number N/MED/CRES/NHSL/30/2018 completed its initial research work, and a prototype related to the project was created. The functionality was confirmed, and the research was conducted.

The project RED/RES/29/2020 was halted because the engineering firm in charge of the project departed, and there was no suitable engineer to continue. The items purchased for the field tests of this project were installed and used in an office of the company. The electrical and electronic equipment purchased were handed over to the Department of Electricity and Electronics for use in the required projects.

Projects should be selected after a thorough feasibility study.

* The first phase of the project N/MD/RES/85/2017-1/2018 was completed on schedule, and the second phase started as an extension of the first phase. During the second phase, the research engineer who conducted the research left his job. Therefore, there is a possibility of utilizing the technologies and robotic machines mentioned earlier for future research related to the Ministry of Skill Development and Tertiary Education.

iv Estimated Cost was Rs.2,900,000 Project No. ENED/RES/41/2020-1, aimed at the development of a farmer-level costeffective cold storage system for extending the shelf life of locally grown fruits and vegetables (Phase 2), was initiated in November 2020. However, after spending Rs. 615,683, the project is currently inactive. Without considering the future operation of the initial project, another project with the project number ENED/RES/PD/35/2022, sharing the same purpose, was initiated in February 2022 with an estimated cost of Rs. 4,000,000. At the time of testing, this project is also currently inactive, having spent Rs. 538,579.

At the request of the President's Office, a request was made to establish a cold storage system through the State, Research, and Innovation. With the approval of the Board of Directors, the initial work of the project was initiated under the number ENED/RES/PD/35/2022. During the field testing of various

groups of vegetables in the ENED/RES/41/2020-01 project, а problematic situation arose. Consequently, the ENED/RES/PD/35/2022 project was suspended, and an investigation was conducted on the goods purchased under it. It was decided to use the funds obtained under the project for future improvement works in the ENED/RES/41/2020-01 project.

Projects should be selected after a thorough feasibility study.

3.2 Procurement Management

Audit Issue

During the year under review, the IT department purchased а 'Hardware Firewall Watch Guard Firebox 290" unit at a cost of Rs.2,217,600. The company's average Mbps monthly requirement stated was as while the monthly 40Mbps. capacity of the firewall device mentioned above is 5.5 Gbps (5500 Mbps). Accordingly, the device that was purchased has a capacity of 5460 Mbps, which exceeds the monthly requirement of the institution. The previously used device, also provided by the same supplier, was in use from 2016 to 2022. The new firewall

Management Comment

The number of authorized users (authenticated users) is crucial when selecting a firewall. At that time, almost 300 employees were working in our company, and this number is expected to increase with new recruitments in the coming years. Taking into account the projected growth, the number of users applied is set at 500. The classification of firewalls for sale in this country varies based on the number of users. The classification of firewalls for sale in this country varies based on the number of users. It varies from 1-200, 200-500, 500-2500, 2500 ~. As per these classifications, the maximum capacity (throughput) of the firewall also changes. The capacity varies depending on the security features in place.

Recommendation

The organization's requirements should be clearly identified, and equipment with the necessary capacity should be purchased accordingly.

system, provided in 2022, was manufactured in 2021. Hence, this system is expected to be replaced in or around 2029. Therefore, it is not anticipated that the use of this network system will increase by capacity of 5460Mbps in the next six years. It was observed that an unnecessary amount of money has been spent on a device with a capacity exceeding the required amount, as mentioned above.

Furthermore, devices of these types are now manufactured using a standardized approach, ensuring high capacity across the board.

Despite our company having acquired a relatively slow internet connection in relation to the number of employees, we have selected and purchased the lowest valid bid based on the submitted specifications. This decision was made to accommodate the required number of users and to ensure the minimum level of necessary security features. The manufacturing company has not been notified of its impending removal, scheduled for six years from now (in 2029).

3.3 Idle or underutilized Property, Plant and Equipment

Audit Issue

The inventory includes 14 hightech machines with a total capacity of Rs.103,423,406. Additionally, there is a machine valued at Rs.13,250,000 which was not initially recorded in the fixed asset register. Its acquisition was prompted by the pressing demand for services in the technology incubator sector to bolster the local Another industry. unidentified machine within the inventory has remained inactive or underutilized.

Management Comment

In 2018, the establishment of the Technology Incubator Division aimed to provide crucial support for innovators in our country. In 2018, collaboration with the Inventors' Commission led to the arrangement of essential services for inventors. The machinery was utilized according to requirements. Providing a clear answer is challenging since the specific machines for which the provision is intended are not identified. However, as indicated in the question, no machines were identified as idle, underutilized, or misused.

Recommendation

To achieve the goals and objectives of the organization, efficient utilization of machines and equipment is essential.