

**BdREN** Annual Report 2023-2024



ANNUAL REPORT 2023-2024

Bangladesh Research and Education Network

BdREN



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www.bdren.net.bd

"We are committed to achieving the utmost satisfaction and delight of our members, as we believe that their happiness is key to our long-term sustainability."

Mohammad Tawrit

CEO, BdREN
Mohammad Tawrit

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Message - Chairperson



“It is gratifying to see BdREN being recognized as a ‘role model’ for other emerging NRENs, exemplifying how dedication and strategic vision can overcome challenges and achieve excellence.”

I feel deeply privileged to pen this message, having recently assumed my role as Chairperson of BdREN. It is a source of immense pride to lead such a dynamic and impactful organization, now marking its sixth year of operation with notable achievements. Although my journey with BdREN has just begun, I can already sense the immense energy and ambition propelling this organization, not just within Bangladesh but across the Asia-Pacific region. During a recent regional collaboration meeting in Seoul, I was struck by the high regard the community holds for BdREN, recognizing its contributions rather than the economic limitations of its home country. This perspective speaks volumes about BdREN's influence and significance in the global NREN ecosystem.

I extend my heartfelt gratitude to the entire BdREN team for their tireless efforts in elevating the organization to this stature within such a short time. Equally, I commend our member institutions, whose unwavering trust and support have been instrumental in BdREN's growth and success. The collective belief in BdREN's vision and services has fueled its progress and established its reputation as a trusted partner in advancing education and research.

As I reviewed the annual report, I was truly impressed by the array of flagship initiatives BdREN has undertaken this year. Among these, the continuation of the Zoom video conferencing service stands out as a pivotal achievement. During the pandemic, BdREN provided this essential service free of charge to academics nationwide, earning widespread acclaim. However, the real challenge emerged when NORDUnet, the provider of Zoom licenses during the pandemic, ceased its support. BdREN's innovative response to this challenge—forming SEACREN, a regional collaboration with Sri Lanka, Nepal, and Bhutan—allowed it to negotiate a five-year agreement with Zoom at an affordable rate. This strategic move ensures that BdREN can continue offering this vital service to the academic community without charge, maintaining the high levels of satisfaction and recognition it has garnered.

I am equally proud of the remarkable work by BdREN's software development team, whose innovations have not only captivated our member institutions but also drawn interest from the Asia-Pacific community. A shining example is the development of the "FileSender" application, a project entrusted to BdREN by APAN after the original provider stepped back. BdREN delivered the software on time, meeting all specifications and generating commendable revenue. This accomplishment reflects BdREN's technical prowess and has further cemented its credibility, potentially opening doors for new opportunities and collaborations within the international community.

BdREN's federated services under TIGERfed have also made significant strides, expanding access to academic and research resources offered by global publishers. I was delighted to learn that many universities have expressed interest in transitioning from their existing remote access solutions to join TIGERfed, enabling seamless on-campus and off-campus access to journals and eBooks free of charge. In an unprecedented move, BdREN has provided free access to 197 Emerald journals for students and faculty members of all colleges under the National University, Bangladesh. This initiative is a testament to BdREN's commitment to inclusivity and innovation, setting a benchmark for regional NRENs. I am optimistic that BdREN will continue to broaden its offerings, providing access to additional resources from other publishers in the near future.

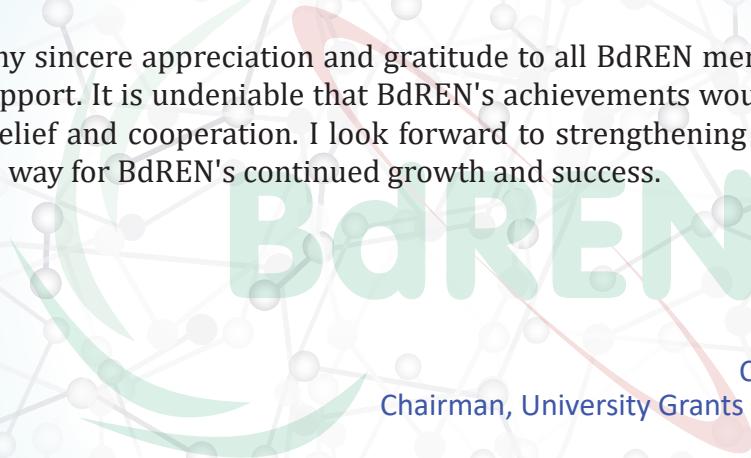
BdREN's active participation in regional activities is another highlight that deserves recognition. Within the APAN community, BdREN has established itself as a key player by leading the "Emerging NREN Working Group" and initiating the "Internet Governance" Birds of a Feather session. The successful completion of two flagship distance learning projects under the Asi@Connect initiative has also earned BdREN widespread praise. Additionally, BdREN's active role in shaping the next phase of the "Asi@Connect Cost-sharing Model"; underscores its leadership and influence within the region. It is gratifying to see BdREN being recognized as a "role model" for other emerging NRENs, exemplifying how dedication and strategic vision can overcome challenges and achieve excellence.

On the financial front, BdREN's overall revenue has shown an upward trajectory. While the purchase of a new office space impacted non-operating revenue, the significant growth in operating revenue reflects BdREN's progress towards financial sustainability and resilience. This trend is further reinforced by the increasing contribution of private universities and other organizations to BdREN's revenue, highlighting their confidence in its services. This diversification of revenue sources is a testament to BdREN's expanding reach and reliability.

Looking ahead, I want to assure all BdREN members that substantial funding has been allocated under the Higher Education Acceleration and Transformation (HEAT) project for BdREN's upgradation. However, for this initiative to achieve its full potential, corresponding improvements in campus networks and related services are essential. Recognizing this, a significant portion of the budget has been earmarked for developing smart campuses in public universities. The project is already underway, and I am confident it will bring transformative changes to Bangladesh's higher education sector in the coming years.

As BdREN continues to evolve, I envision BdREN to develop new groundbreaking applications and services tailored to the needs of the academic community. These innovations will further strengthen BdREN's role in the higher education ecosystem, enhancing its value to member institutions and fostering deeper engagement.

In conclusion, I extend my sincere appreciation and gratitude to all BdREN member institutions for their trust and unwavering support. It is undeniable that BdREN's achievements would not have been possible without this collective belief and cooperation. I look forward to strengthening these partnerships in the coming years, paving the way for BdREN's continued growth and success.



Dr. S M A Faiz

Chairperson, BdREN Trust &
Chairman, University Grants Commission of Bangladesh

Message- Vice-Chairperson



“The achievements of the past year reflect the organization's ability to navigate challenges, seize opportunities, and deliver impactful solutions to its stakeholders. With a talented team, strong financial footing, and ambitious initiatives, BdREN is well-positioned to shape the future of education and research in Bangladesh.”

It is my honour and privilege to reflect on the remarkable journey of this organization and its impactful contributions over the past year. As a matter of fact, I have very recently joined as Vice Chairperson of BdREN and as such before going through the report I was quite oblivious of different facts and figures that have been reported in the document. However, by going through the report, it became vivid to me that BdREN has cemented its position as a leader in digital transformation for Bangladesh's education and research sectors, gaining recognition both domestically and across the Asia-Pacific region. I could further figure out that the past year has been a testament to BdREN's unwavering commitment to innovation, collaboration, and excellence.

I have no doubt that BdREN's progress is driven by the dedication of its team. Starting with a small workforce, BdREN now comprises 76 talented individuals whose expertise and passion propel the organization forward. Recognizing that human resources are its greatest asset, BdREN invests in fostering a supportive and innovative work environment.

Flexible work policies, recreational facilities, and team-building initiatives such as annual picnics and sports events have strengthened the sense of community within the organization. This year, the relocation of BdREN activities to a modern, spacious office further enhanced the workspace, providing an inspiring environment that encourages creativity and productivity.

It is revealed from the report that one of the standout achievements in the last financial year was BdREN's ability to ensure seamless digital connectivity. During the pandemic, BdREN's provision of Zoom video conferencing services was vital for the academic community. When NORDUnet ceased its support for Zoom licenses, BdREN led the formation of SEACREN - a regional collaboration with Sri Lanka, Nepal, and Bhutan. This initiative secured an affordable five-year agreement with Zoom, ensuring the continuation of this essential service.

BdREN's federated services under TIGERfed have also made significant progress, expanding access to academic resources. By enabling seamless on-campus and off-campus access to eJournals and eBooks, BdREN has empowered students and researchers. A notable highlight is the provision of free access to 197 Emerald journals for National University students and faculty members, setting a benchmark for inclusivity in the region.

BdREN's software team has delivered innovative solutions that have gained recognition nationally and internationally. The development of the "FileSender" application for APAN stands out as a major achievement, showcasing BdREN's technical expertise and ability to deliver complex projects on time. Similarly, the creation of a "certificate verification" application for the Bangladesh University of Professionals demonstrates BdREN's capacity to address real-world challenges and support academic institutions with tailored solutions.

It became clear from the facts and figures published in the report that BdREN's contributions extend beyond national borders. Its active role in the Asia-Pacific Advanced Network (APAN) community has solidified its position as a key player. At APAN56 and APAN57, BdREN led sessions on topics like Internet Governance and Emerging NRENs, furthering its influence in regional collaborations. The formation of SEACREN at APAN56 marked a significant milestone, fostering collaboration among NRENs from similar economies.

Domestically, BdREN has strengthened its relationship with the academic community through organizing couple of workshops on "network security". These workshops, held in collaboration with APNIC, Huawei and Asi@Connect, have provided valuable training to participants from Bangladesh, Nepal, and Sri Lanka, contributing to capacity building across the region.

It is unfolded in the report that on the financial front, BdREN has demonstrated strong growth and resilience. Total revenue has increased significantly, reflecting progress toward financial sustainability.

The share of operating revenue rose to 79% this year, underscoring BdREN's ability to generate income through its services. Also the share of revenue earnings from private universities and other institutes increased to 27% from 18% on year-on-year basis. This trend highlights the growing confidence of private universities and institutions in BdREN's offerings.

Despite investments such as the purchase of a new office space, BdREN's financial stability remains robust, enabling continued innovation and growth. This financial foundation ensures that BdREN can deliver high-quality services while pursuing ambitious initiatives.

This year, BdREN reached a significant milestone with the relocation of its office to Navana HR Tower-2, Tejgaon Link Road. After years of its stay at the UGC Building in Agargaon, the organization recognized the need for a modern and larger workspace to support its growing operations. The new office reflects BdREN's forward-thinking approach, offering advanced facilities and fostering collaboration among employees.

The grand inauguration of the new office was a celebration of BdREN's achievements and aspirations. Attended by key stakeholders from the Ministry of Education, the University Grants Commission, and the World Bank, the event reaffirmed BdREN's commitment to advancing higher education through cutting-edge digital infrastructure and collaborations.

While the administrative teams have moved to the new office, critical facilities such as the Network Operation Center and Data Center remain at the UGC Building to ensure uninterrupted services. The strategic location of the new office enhances accessibility and fosters stronger collaboration with academic institutions and stakeholders.

I like to express my commitment that as BdREN continues to grow, its focus on innovation, collaboration, and inclusivity will remain central to its mission. The achievements of the past year reflect the organization's ability to navigate challenges, seize opportunities, and deliver impactful solutions to its stakeholders. With a talented team, strong financial footing, and ambitious initiatives, BdREN is well-positioned to shape the future of education and research in Bangladesh.

In conclusion, I extend my heartfelt gratitude to the Board of Trustees, and our member institutions for their trust and support. Together, we will continue to drive BdREN's vision of transforming education and research through digital excellence, ensuring a brighter future for Bangladesh.

Dr. Md. Saidur Rahman
Vice-Chairperson, BdREN Trust &
Member, University Grants Commission of Bangladesh

Message - Chief Executive Officer



“Among our flagship achievements, BdREN has made significant strides by connecting several publishers, including Emerald, JSTOR, IEEE, and others to TIGERfed. Once universities join TIGERfed with their Identity Providers (IdPs), they will no longer need expensive connectivity with the overseas federations for on-campus and off-campus access to publishers' resources.”

At the outset, I would like to express my gratitude to the Board of Trustees for placing their trust in me as BdREN completes its sixth year of operation under the management of BdREN Trust. This year has been another flagship year for BdREN, marked by numerous achievements and honors, which are detailed throughout the report. I take the privilege to briefly summarize them here.

Internet traffic has significantly increased, with a notable contribution from the 19Gbps Facebook Cache being served by Mango Teleservices. Even with the introduction of the Facebook Cache, upstream traffic has remained steady at 21Gbps. This implies that BdREN members continue to trust the organization, as reflected in the steadily growing membership, which has now reached 293.

One notable achievement is the recent approval from Facebook to establish a local Facebook Network Appliance (FNA) server. Once installed and commissioned, this server will enhance service quality and save BdREN a significant amount of money currently being spent on pulling Facebook traffic.

At the same time, both the capacity and utilization of the Data Center Cloud Computing service - one of BdREN's most popular services - have soared. I am pleased to share that, out of a computing capacity of 3,000 cores, the maximum usage reached 2,823 cores in June 2024. Memory usage was similarly robust, with 5,952GB utilized out of a total capacity of 7,040GB, which is comparable to 2023 levels. This data highlights the growing interest of academicians and researchers in leveraging Data Center resources for their research.

This year, we enhanced our network availability to 99.95%, up from 99.94% in the previous year. For universities with backup connectivity from third-party NTTN operators, availability is even higher. We are striving for greater resilience, targeting 99.99% availability by establishing tertiary backup facilities from our core to distribution points in divisional cities.

As mentioned in the last annual report, BdREN - on behalf of SEACREN - successfully negotiated an affordable and acceptable price for Zoom application licenses for a five-year period. This ensures BdREN in continuation of its flagship Zoom Service for the community.

Among our flagship achievements, BdREN has made significant strides by connecting several publishers, including Emerald, JSTOR, IEEE, and others to TIGERfed, the only Identity Federation of Bangladesh managed by BdREN. Once universities join TIGERfed with their Identity Providers (IdPs), they will no longer need expensive connectivity with the overseas federations for on-campus and off-campus access to publishers' resources.

I am pleased to share that BdREN has facilitated research activities by providing free access to the "Emerald" journal for the students and faculty members of all the colleges under the National University Bangladesh for two years. This initiative is unparalleled among NRENs in the Asia-Pacific region. To ensure optimal utilization of this access, BdREN has supported the National University Bangladesh in training up the college librarians and faculty members of 120 IDG colleges.

Under its flagship initiatives, BdREN has signed a contract with the ASSET project to conduct a survey to connect 114 polytechnic institutes across the country with BdREN. Once implemented, this will open new opportunities for connectivity and expand BdREN's member base.

The BdREN software team has developed a "certificate verification" application for Bangladesh University of Professionals (BUP). This facility can be further replicated for other universities. While currently offering basic features, advanced functionalities like validated hardcopies and authentic softcopies of certificates are in the pipeline. Implementation will proceed upon receiving approval from the respective university authorities.

BdREN has enhanced its international image through active participation and leadership roles at APAN56 in Colombo and APAN57 in Bangkok. Highlights include conducting Birds of a Feather session on Internet Governance, presenting a keynote at the REN Leaders Forum, and hosting an "Emerging NREN" session at APAN56. At APAN57, BdREN's contributions to the Marketing and eNREN sessions garnered significant attention. Additionally, SEACREN was officially formed at APAN56 to unite NRENs from similar economies. Its first achievement was negotiating affordable Zoom licenses. At APAN57, discussions with APAN Sec led to the delivery of the "FileSender" application in June 2024, marking another milestone for the BdREN software team.

Domestically, BdREN organized two back-to-back international workshops on "Network Security" in Cox's Bazar. These workshops included participants from public and private universities across Bangladesh, as well as representatives from Nepal and Sri Lanka's Research and Education Networks. BdREN sponsored logistical support, with instructors provided by APNIC (with support from Asi@Connect) and Huawei. These workshops enhanced participants' knowledge of network security and strengthened bonds with BdREN.

To recognize the contributions of its officials, BdREN hosted a day-long event at its new office, acknowledging the dedication and outstanding performance of the officials. Employees working for a significant period of time with integrity and diligence were conferred with "Crests" and "Certificates".

Financially, BdREN's position is becoming more stable and resilient. Total revenue increased to BDT 302 million in FY 2023-24, up from BDT 266 million in FY 2022-23. The gross surplus rose from BDT 90 million to BDT 100 million. Revenue diversification is evident, with earnings from other institutes increasing to 27% in FY 2023-24, up from 18% in the previous year. Additionally, the share of operating revenue rose from 69% in FY 2022-23 to 80% in FY 2023-24, signifying that BdREN is becoming more self-sufficient through attaining the capability to cover the operating expenses with its revenue.

Finally, I extend my heartfelt thanks to our members and stakeholders, especially the University Grants Commission of Bangladesh, for their invaluable support in transforming BdREN into a self-sustainable organization.

Mohammad Tawrit
Chief Executive Officer
BdREN Trust

BdREN Governance - Board of Trustees

As on December 24, 2024

BdREN is being operated as a state-owned non-profit autonomous Trust with a Board of Trustees consisting of representatives from the UGC, Universities, MoE, and other members co-opted for their expertise and position in relevant industries.



Chairperson

Prof. Dr. S M A Faiz

Chairman, University Grants Commission of Bangladesh



Vice-Chairperson

Prof. Dr. Md. Saidur Rahman

Member, University Grants Commission of Bangladesh



Prof. Mohammad Tanzimuddin Khan, PhD

Member

University Grants Commission of Bangladesh



Prof. Dr. Mahmud Abdul Matin Bhuiyan

Vice-Chancellor

Chittagong University of Engineering & Technology (CUET)



Prof. Dr. Mohammad Ismail

Vice-Chancellor

Noakhali Science and Technology University (NSTU)



Prof. Imran Rahman

Vice-Chancellor

University of Liberal Arts Bangladesh (ULAB)



Prof. Dr. Md. Jawadul Haque

Vice-Chancellor

Rajshahi Medical University



Prof. Dr. S M Abdur Razzak

Vice-Chancellor

Rajshahi University of Engineering & Technology (RUET)



Mr. Numeri Zaman

Joint Secretary, MoE

Secondary & Higher Education Division, Ministry of Education



Mr. Md. Anwar Hossain

Managing Director

Bangladesh Telecommunications Company Limited (BTCL)



Vice-Chancellor

Varendra University

BDREN

TEAM



BdREN- At A Glance





Introducing BdREN

01

Country's only REN

BdREN is the only National Research and Education Network in Bangladesh.

02

Autonomous Trust

BdREN is the only National Research and Education Network in Bangladesh.

BdREN is a non-profit autonomous Trust governed by an independent Trust Body chaired by Honorable Chairman, UGC.

03

Flagship Regional NREN

BdREN has already established itself as a flagship NREN in the Asia-Pacific region. It has become a role model for other NRENs.

04

Quality Service Provider

By delivering quality services BdREN has already established its footprint in the community. Universities and Research Institutes have taken BdREN as an automatic choice while selecting the service provider.

05

Flagship Services

Many Flagship services like eduroam, video conferencing through Zoom Application and Federated Services have made BdREN as a unique service provider in the community.

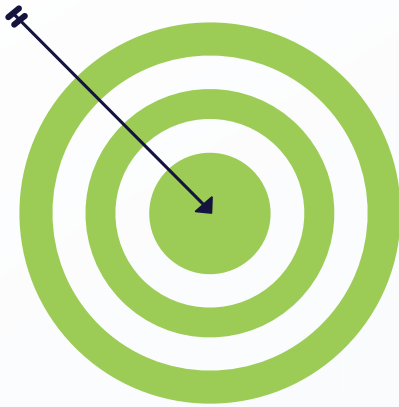
06

Gateway to Global REN

It is the only Gateway to get connected to Global Research and Education Network which enables researchers and academicians to communicate globally with ease, comfort and satisfaction.

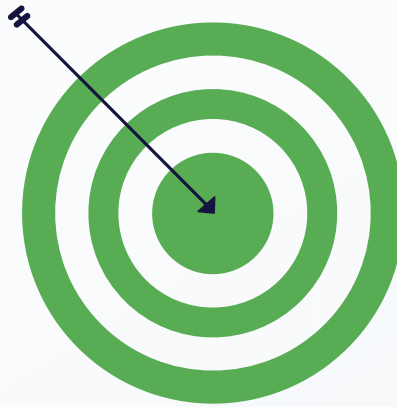
BdREN's SMART GOALS

PLANNED AND DESIGNED TO MAKE A BIG IMPACT ON ITS MEMBERS



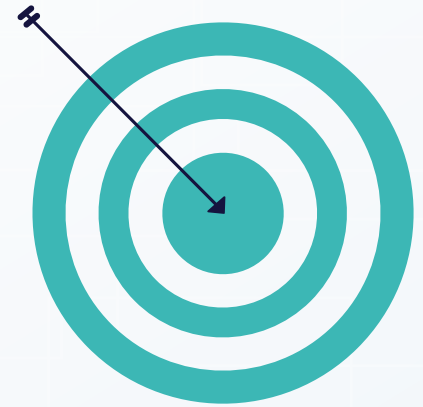
Quality Network

Building and Operating state-of-the-art high-quality and high-bandwidth network.



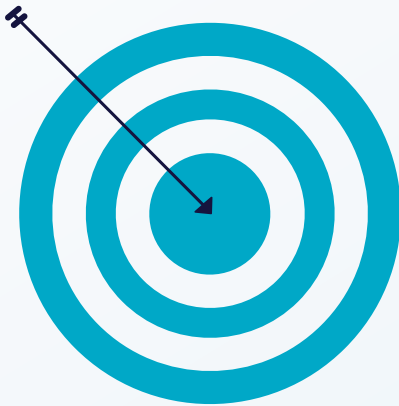
Collaboration with Global Researchers

Attracting NRB and Global Scientists and Researchers



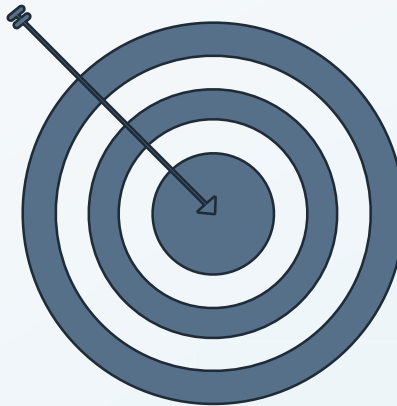
Applications and Services

Providing Cost-Effective & Best-in-Class Applications and Services to its esteemed Members



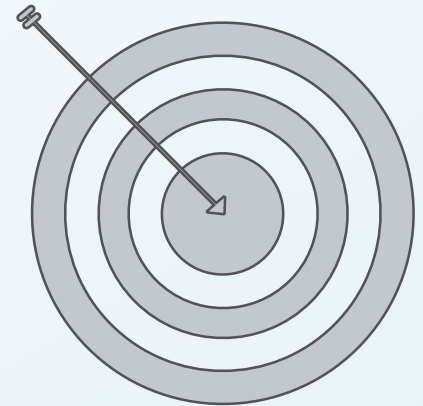
Innovation

Fostering innovation and stimulating work environment for the academicians and researchers



Collaboration with Global NRENs

Active Participation in Regional and Global NREN Associations with noteworthy contribution



Financial Sustainability

Attaining competitive edge through introduction of "cash-cow" services and earn financial sustainability

Vision

Mission

To establish BdREN as the default home of choice for all researchers and educationists in serving their needs.

To turn BdREN into an iconic NREN in terms of helping Researchers and educationists in doing their research, through access to quality network and delivery of content while addressing their needs in an agile, innovative, collaborative and caring manner.

BdREN's Culture

1

MORE LISTENING THAN SPEAKING

Listen to Members' complains and suggestions not for speaking back but to learn and react accordingly.

4

POSITIVE ATTITUDE

Need to be optimistic rather than being pessimistic and bring out the best out of anything.

2

TEAM WORK

The officials of BdREN shall work in a Team. BdREN believes in the motto that team effort always gives more than the summation of individual.

5

GOING EXTRA MILE

BdREN activities shall not only satisfy the members, but it will also give them something additional which no other service provider can offer.

3

INNOVATION AND CREATIVITY

Be creative and innovative to ensure competitive advantage over its competitors. Sustainability ceases to exist without innovation.

6

OWNERSHIP

The officials of BdREN shall act in a way so that it reflects that the organization belongs to them. Imbued with the same philosophy the members will act.

BdREN's Roadmap as it grew

● 2009

BdREN Started its operation as a component of HEQEP

● 2011

Leased 3200+ km OPGW from PGCB

● 2012

BdREN established its connectivity with Global Research and Education Network through Trans-Eurasia Information Network-3

● 2014

Formation of BdREN Trust as an autonomous and non-profit organization

● 2015

BdREN Started its operation with 34 Public Universities connected to its network

● 2019

BdREN Trust came into limelight taking full responsibility from HEQEP as the project expired

● 2020

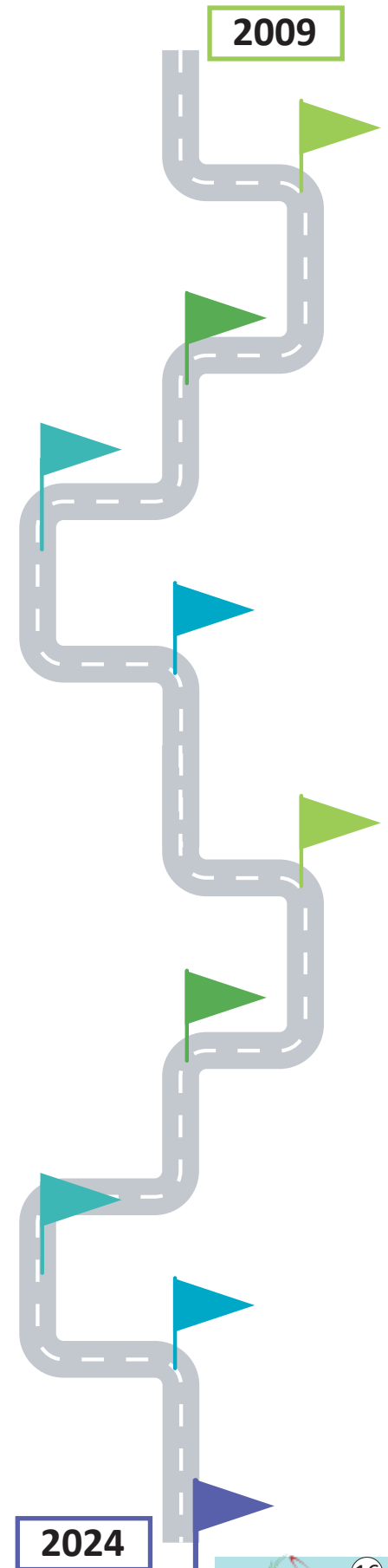
BdREN stamped its footprint in the community providing free-of-cost zoom application licenses to all the faculty members during the pandemic

● 2022

BdREN evolved as the single-service provider for public universities attaining a reliability of 99.95%

● 2022-23

BdREN could prove its financial strength as its operating income starts surpassing its operating expenses



2024

2009

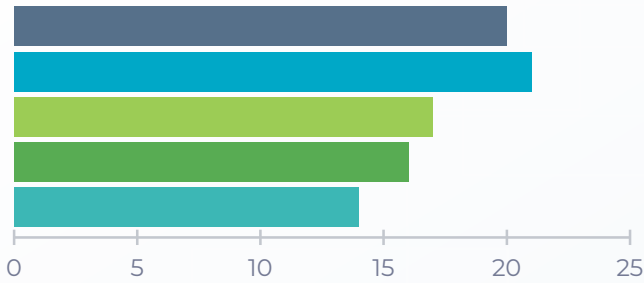
Journey Towards Researchers' Heaven



BdREN HUMAN RESOURCE GROWTH

2020-2024

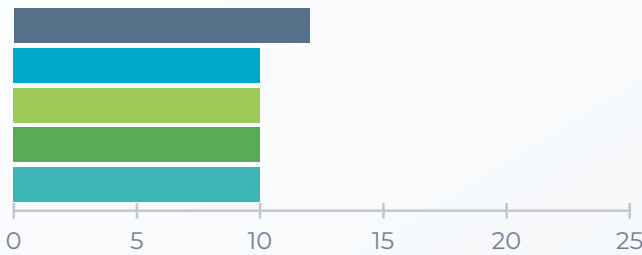
ENGINEERS



30 JUNE 2024

ENGINEERS: 20
 TECHNICIAN: 12
 EXECUTIVE: 07
 SUPPORT STAFF: 08
 CONTRACTUAL: 28
TOTAL: 75

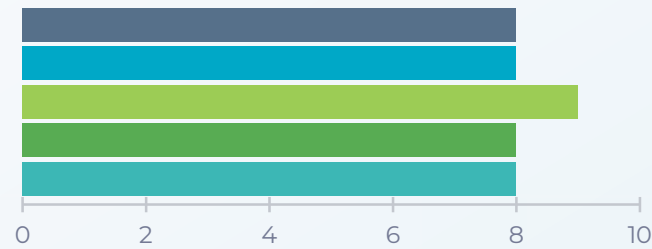
SUPPORT STAFF
 TECHNICIANS



30 JUNE 2023

ENGINEERS: 21
 TECHNICIAN: 10
 EXECUTIVE: 06
 SUPPORT STAFF: 08
 TCONTRACTUAL: 20
TOTAL: 65

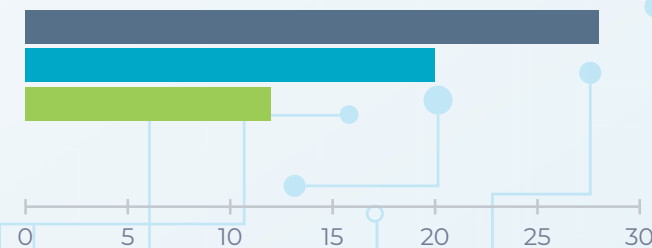
EXECUTIVES



30 JUNE 2022

ENGINEERS: 17
 TECHNICIAN: 10
 EXECUTIVE: 05
 SUPPORT STAFF: 09
 CONTRACTUAL: 12
TOTAL: 53

CONTRACTUAL



30 JUNE 2021

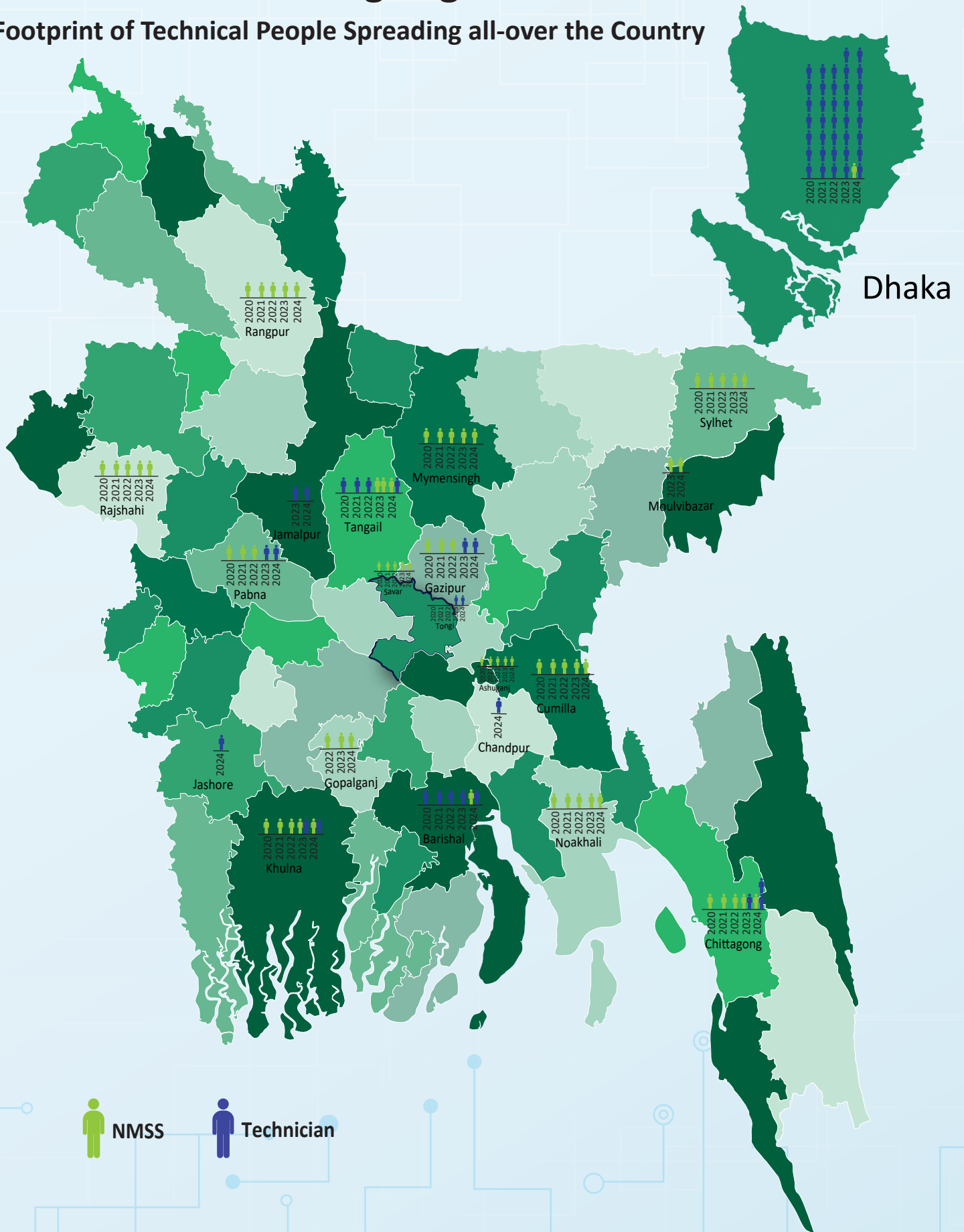
ENGINEERS: 16
 TECHNICIAN: 10
 EXECUTIVE: 04
 SUPPORT STAFF: 08
 CONTRACTUAL: 00
TOTAL: 38

30 JUNE 2020

ENGINEERS: 14
 TECHNICIAN: 10
 EXECUTIVE: 04
 SUPPORT STAFF: 08
 CONTRACTUAL: 00
TOTAL: 36

Increasing Regional Presence

Footprint of Technical People Spreading all-over the Country



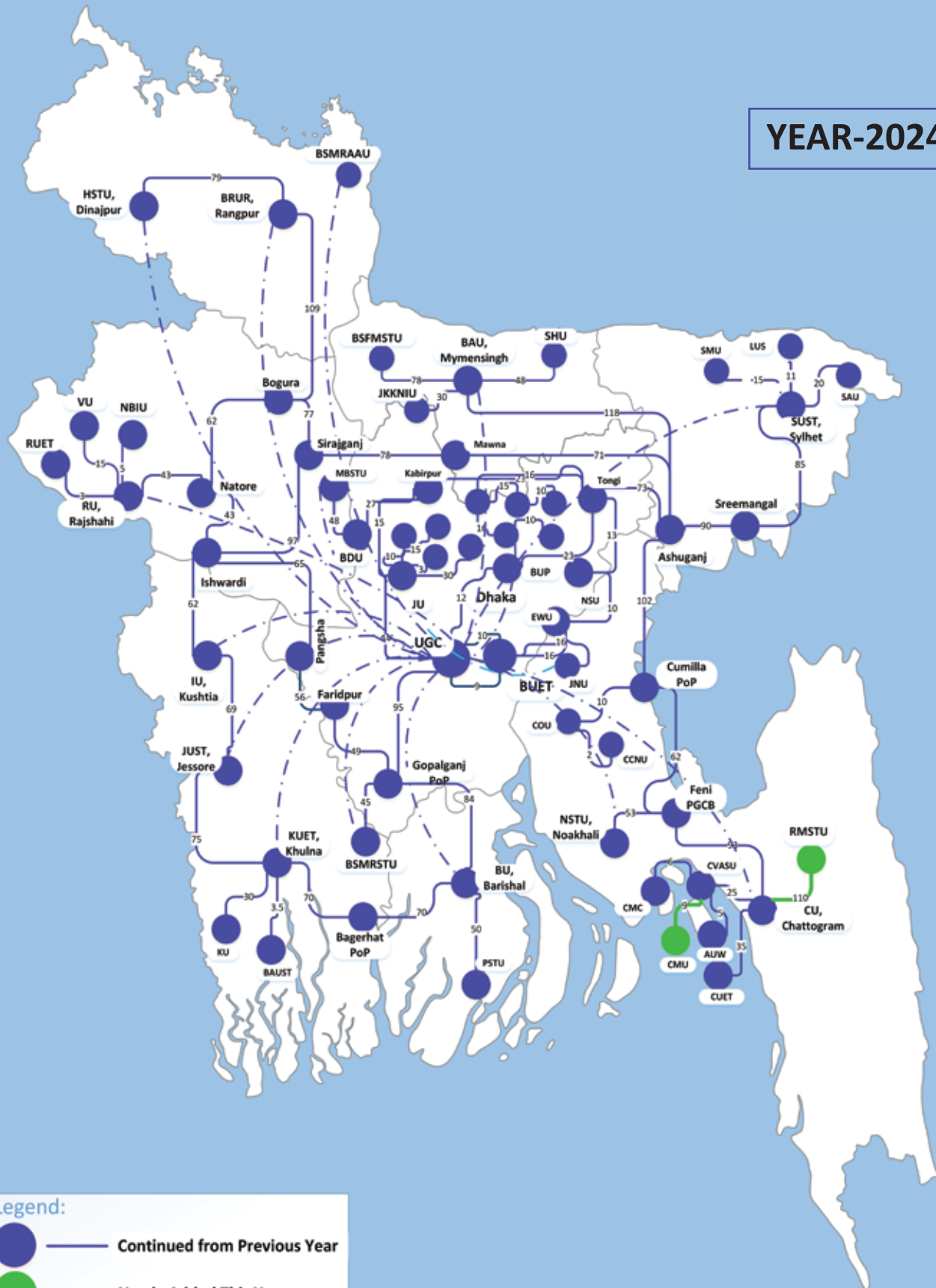
NMSS



Technician

Country-wide Network Presence

YEAR-2024



© 2024 BdREN

Legend:

- — Continued from Previous Year
- — Newly Added This Year

Service Map of BdREN: 2024 and Onward

Expansion of Services ↑

Planned and Executed

Further Horizontal Expansion

Future Plan

Upto 2024

2025

2026 and Beyond



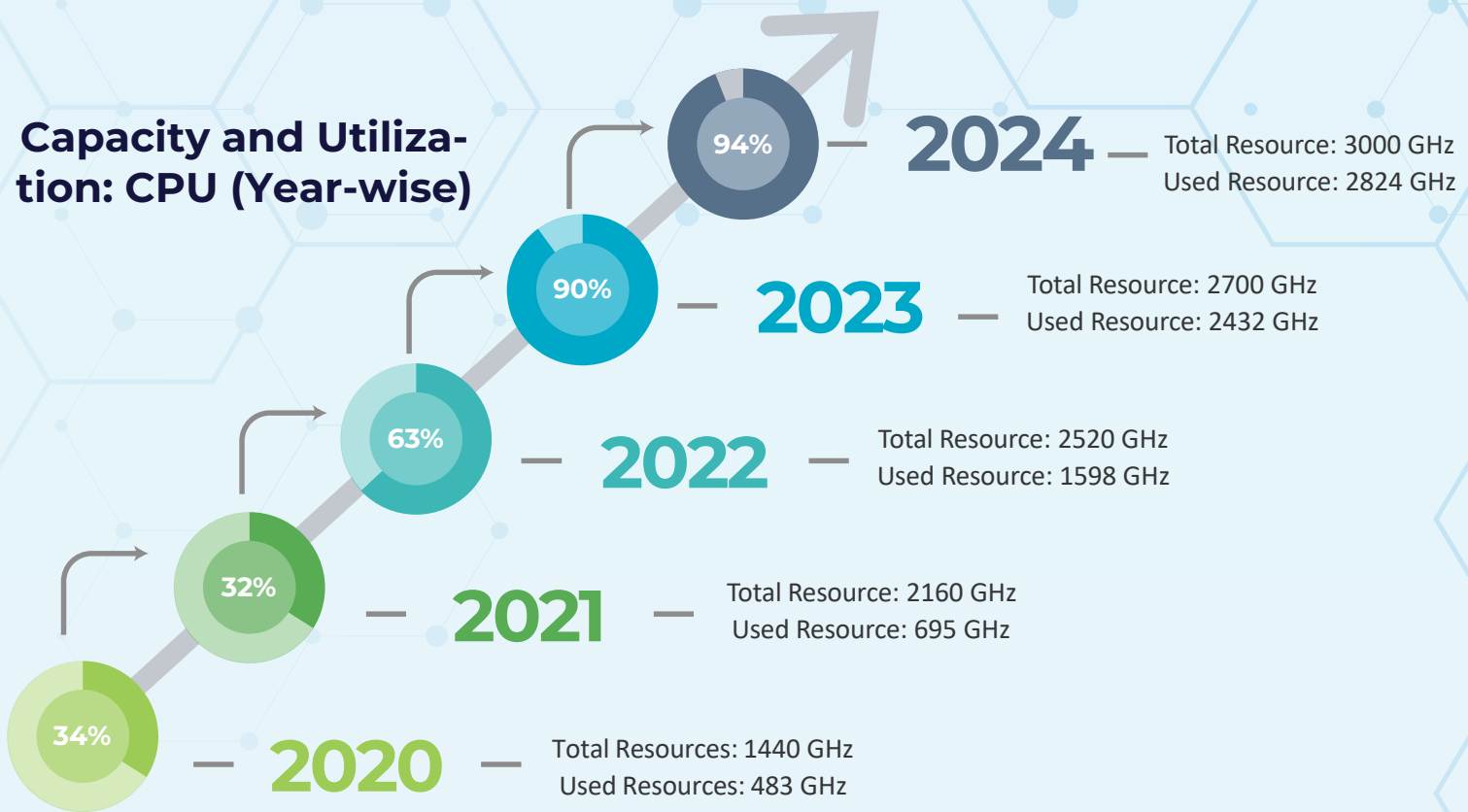
- Implemented before
- New Comers
- Immediate Possibilities
- Long-term Plan



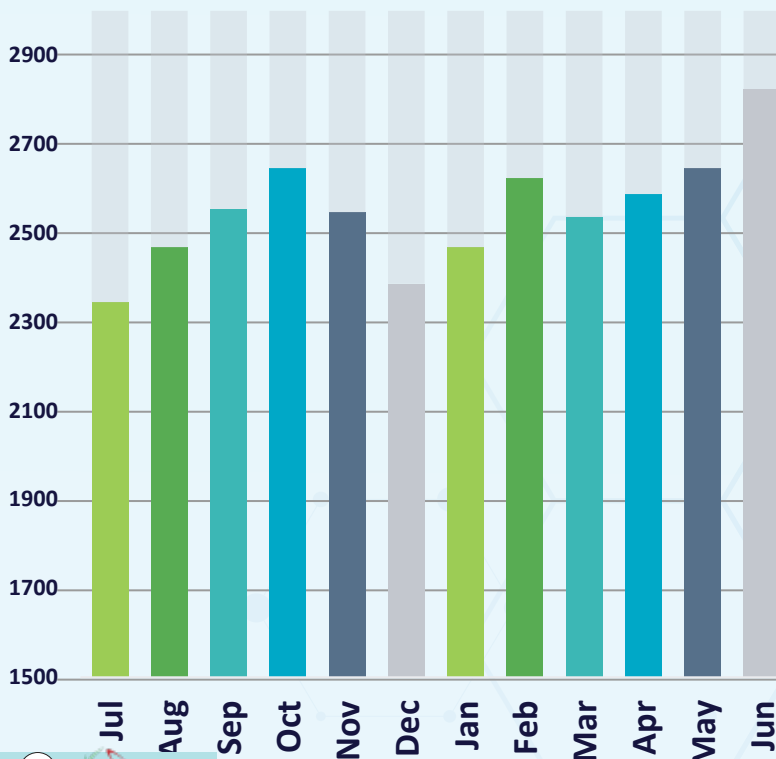
Network and Service Information: Traffic, Utilization, Performance

Capacity and Usage of Data Center Resources

Capacity and Utilization: CPU (Year-wise)



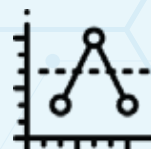
Utilization of CPU (Month-wise)



Period: July, 2023 - June, 2024



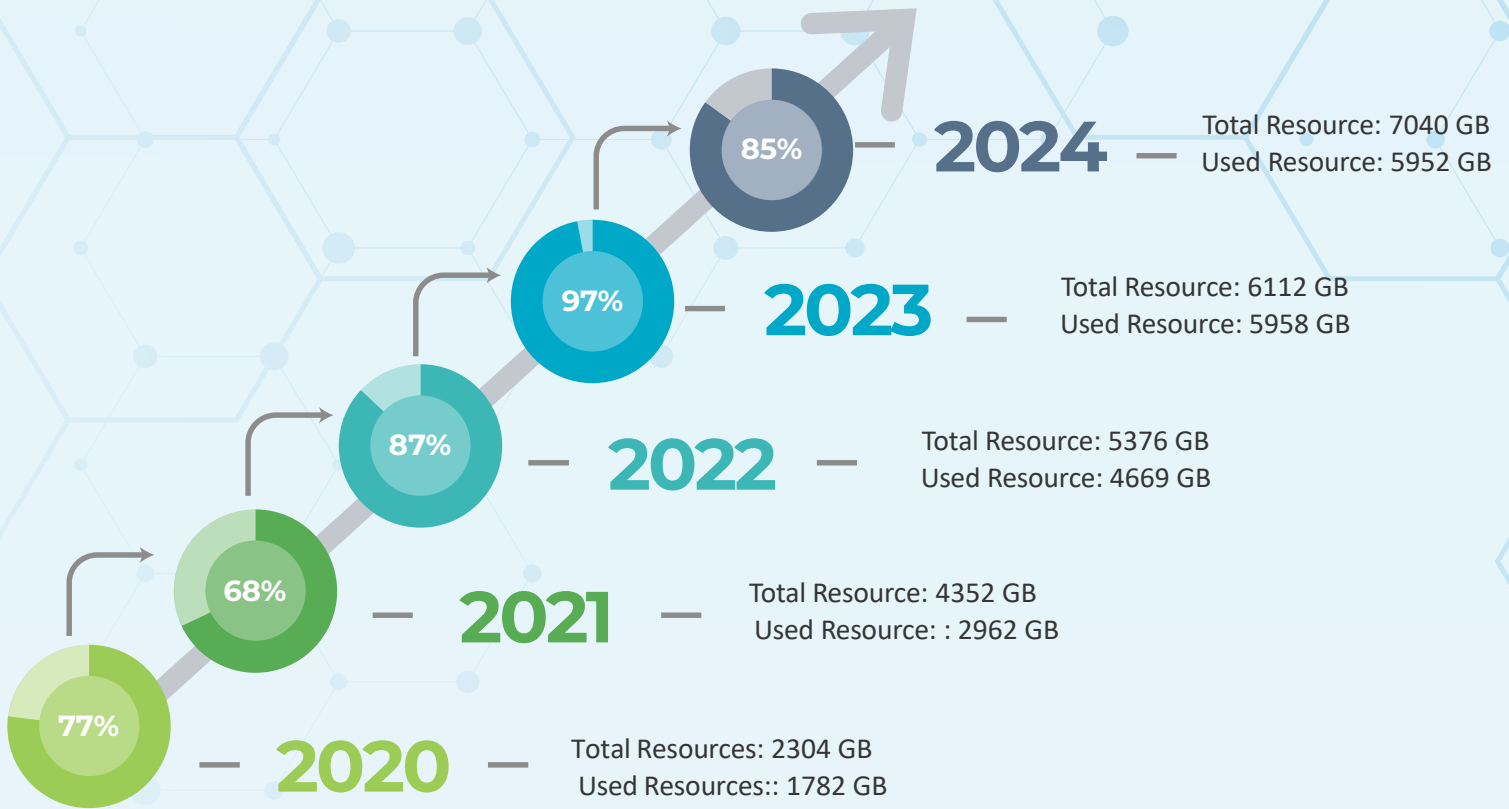
Max: 2823 GHz



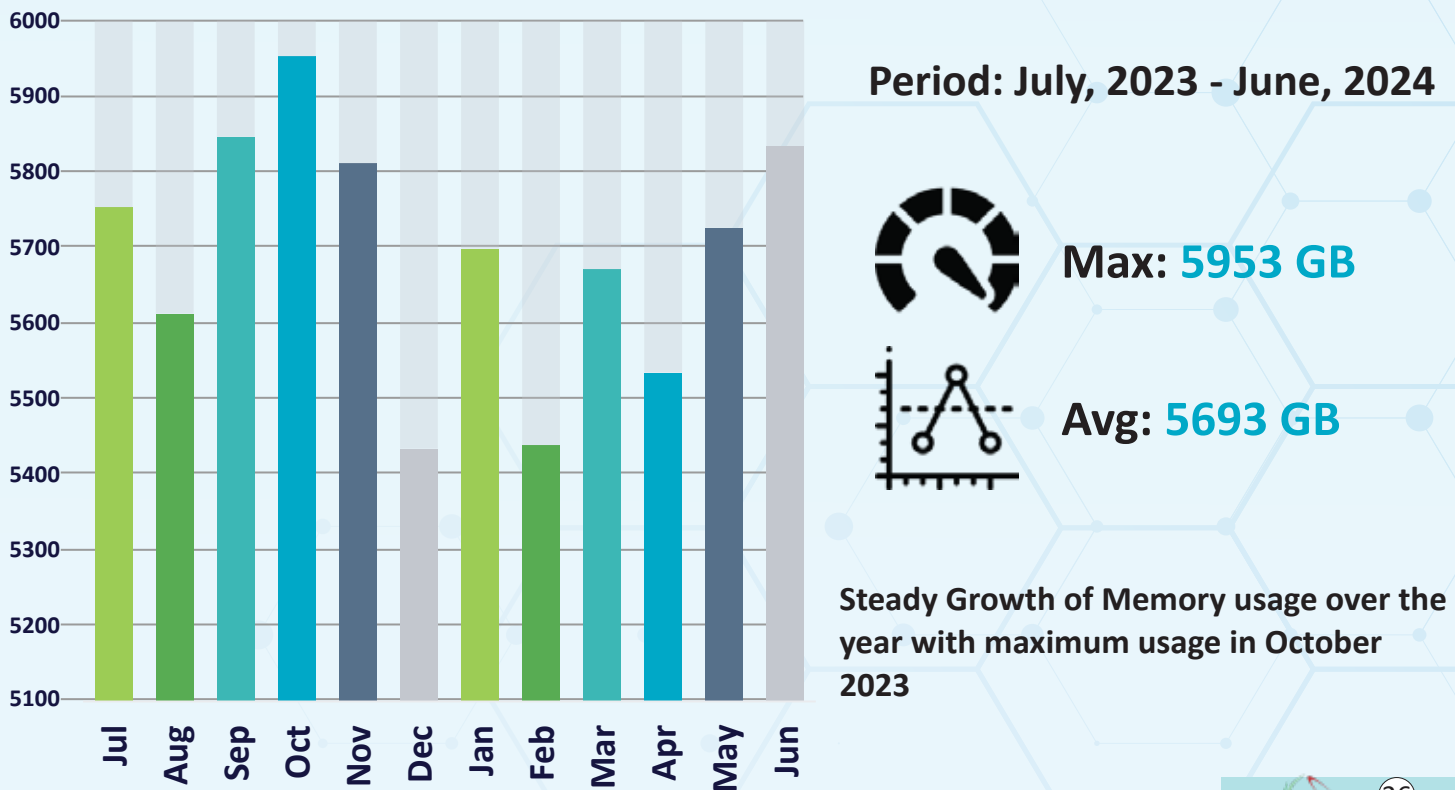
Avg: 2552 GHz

Steady Growth of CPU usage over the year with maximum usage in June 2024

Capacity and Utilization: Memory (Year-wise)



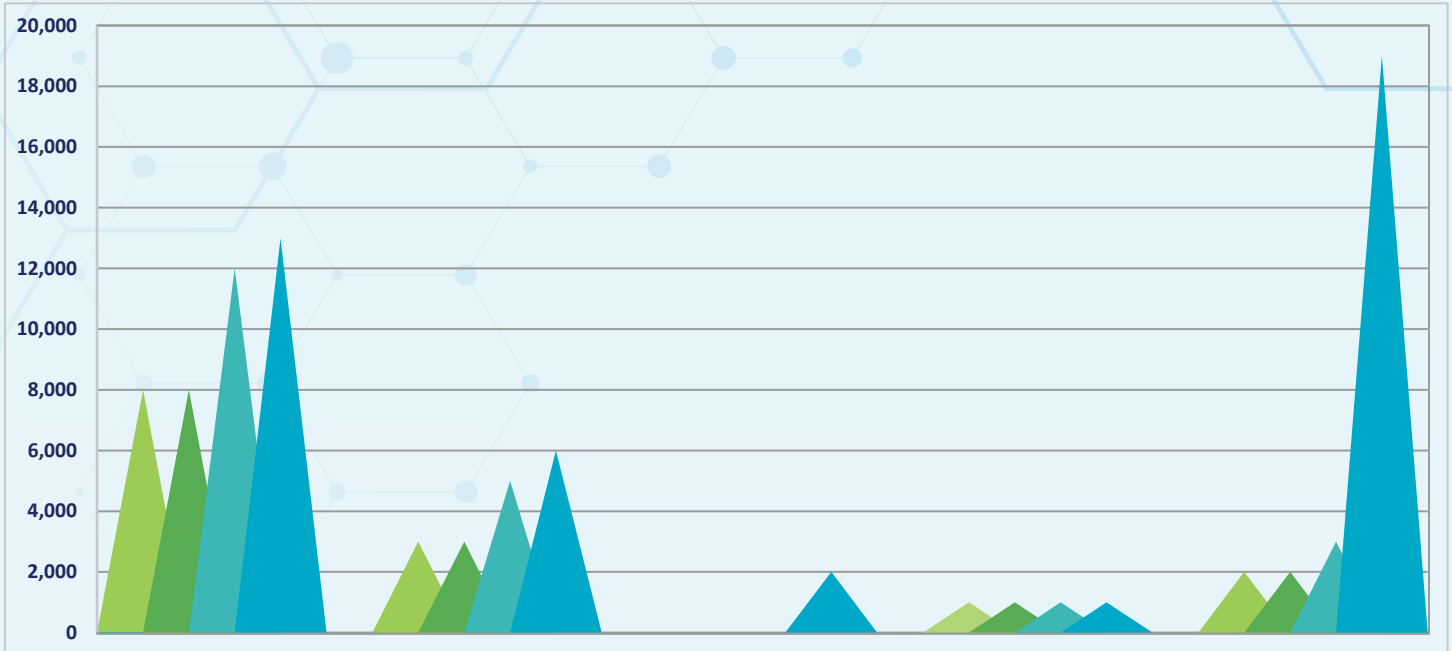
Utilization of Memory (Month-wise)



Growth of Upstream Bandwidth, Mbps

Over the years from 2021 to 2024

ANNUAL GROWTH



BTCL

BSCPLC

Mango

NKN

Cache

● 2021

● 2022

● 2023

● 2024

Notes:

2021 Total Upstream Internet was 11Gbps with 1Gbps GREN connectivity through NKN and 2Gbps Google Cache.

2022 Total Upstream Internet was 11Gbps with 1Gbps GREN connectivity with NKN and 2Gbps Google Cache.

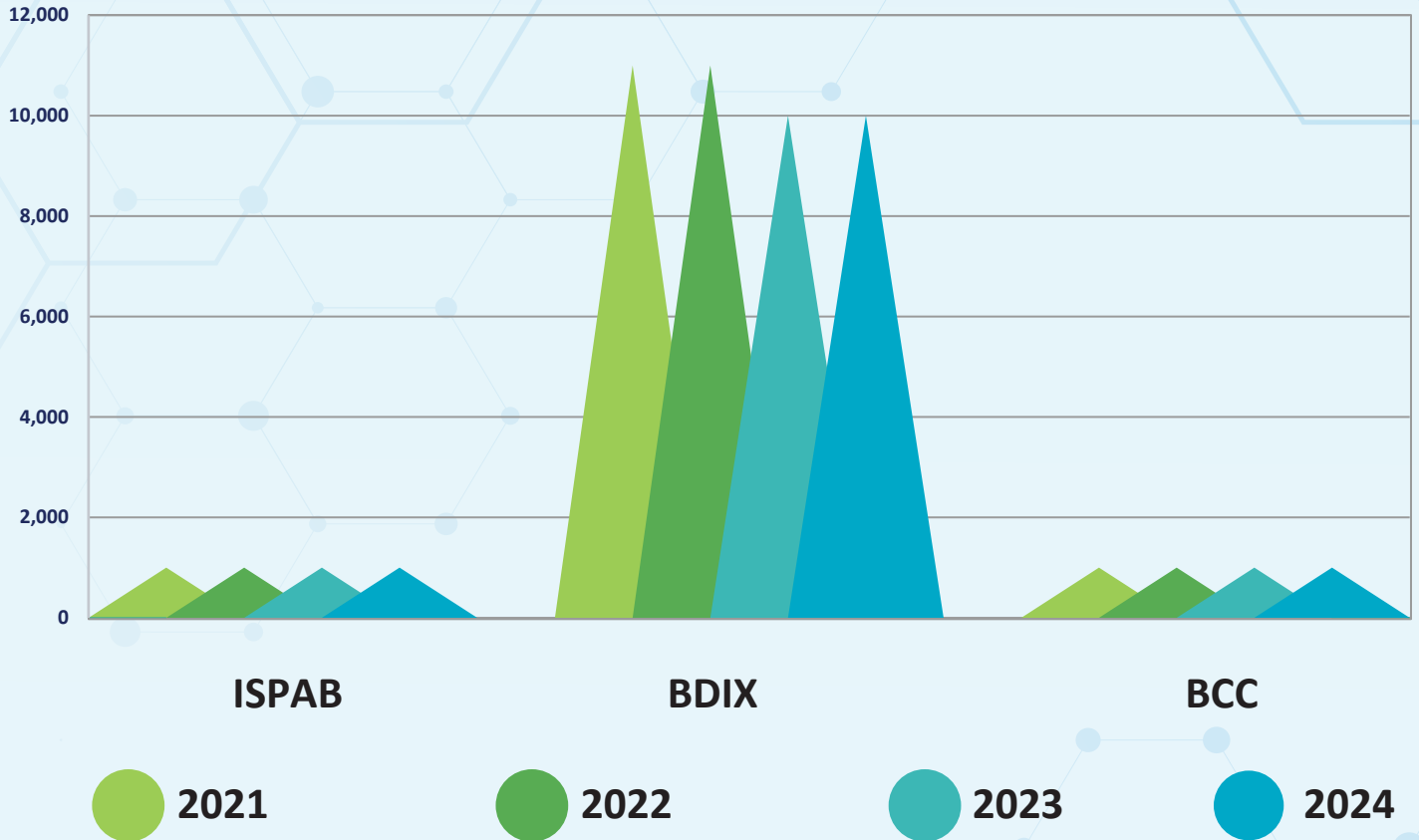
2023 Internet Bandwidth surged to 19Gbps which was almost 2 times of the previous year with Google Cache Traffic increased by 1Gbps.

2024 Internet Traffic increased to 21Gbps with Mango added as new upstream provider having 2Gbps bandwidth. 19 Gbps Cache Traffic through Mango Teleservices.

Capacity of Internet Exchange connectivity, Mbps

Throughout the period from 2021 to 2024

ANNUAL SUBSCRIPTION



Notes:

2021

- Connectivity was established with BDIX redundant [10Gbps + 1Gbps] and ISPAB [1Gbps] as Internet Exchange operators.
- Bangladesh Computer Council was a peering connectivity.

2023

- Redundant Connectivity [1 Gbps] with BDIX was dropped but primary one [10 Gbps] continued and connectivity with ISPAB [1 Gbps] remained in place as Internet Exchange operators.
- Connectivity with Bangladesh Computer Council continued.

2022

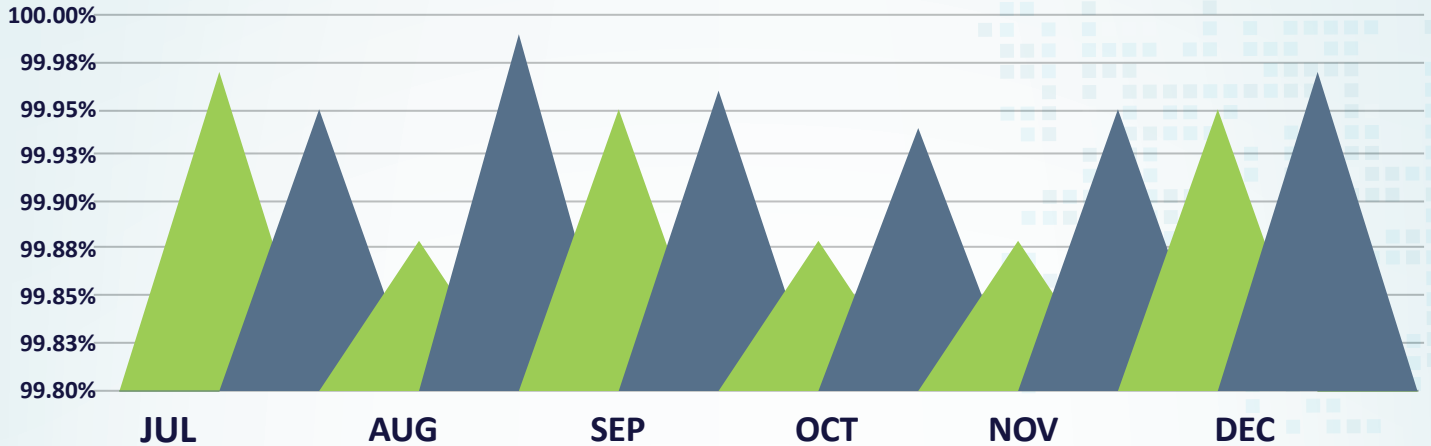
- Connectivity continued with BDIX redundant [10Gbps + 1Gbps] and ISPAB [1Gbps] as Internet Exchange operators.
- Bangladesh Computer Council was a peering connectivity.

2024

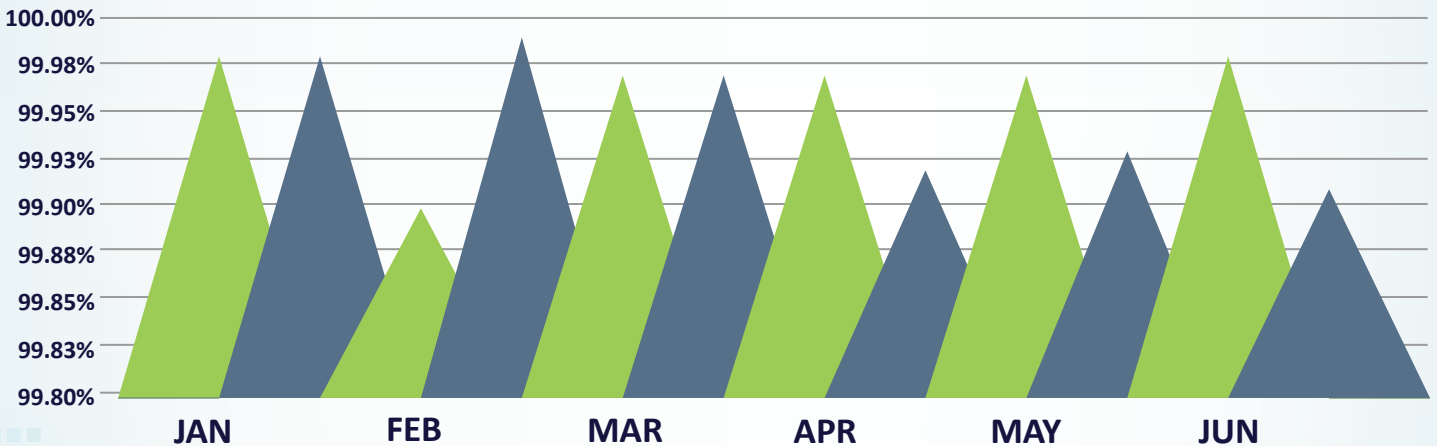
- Single Connectivity with BDIX [10 Gbps] and connectivity with ISPAB [1 Gbps] as Internet Exchange operator continued.
- Connectivity with Bangladesh Computer Council continued.

Comparison of Availability for Universities

Monthly Availability Chart: Jul-Dec, 2022 vs 2023



Monthly Availability Chart: Jan-Jun, 2023 vs 2024

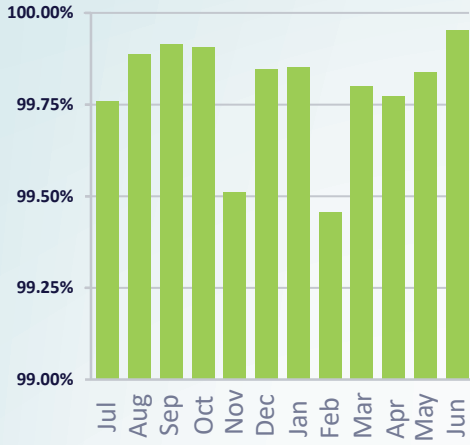


2022-23 Yearly Average : **99.94%**
 Monthly Minimum: **99.88%** in **Aug, Oct and Nov 2022**

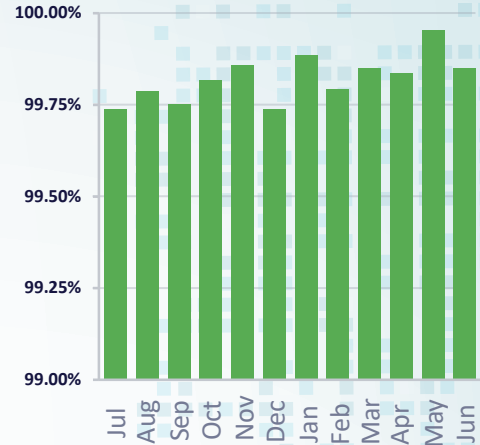
2023-24 Yearly Average : **99.95%**
 Monthly Minimum: **99.91%** in **Jun 2024**

Monthly Availability of Institutions

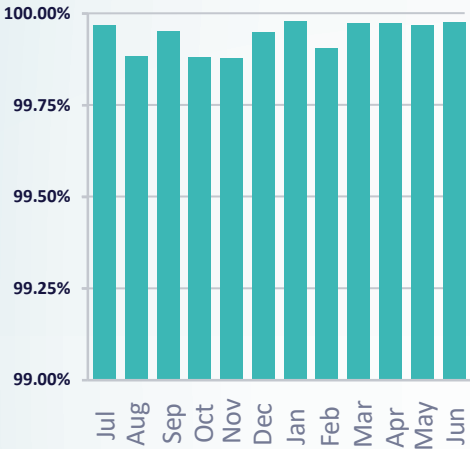
Over the years from FY 2020-21 to FY 2023-24



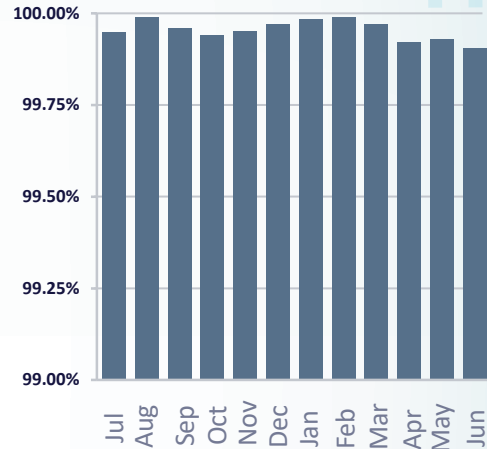
FY 2020-21



FY 2021-22



FY 2022-23



FY 2023-24

On a Scale base of 99.00% to 100%



FY 2020-21



FY 2021-22



FY 2022-23



FY 2023-24

With no BTCL backup
Average Monthly Outage:

1.51 hours

With partial BTCL backup
Average Monthly Outage:

1.30 hours

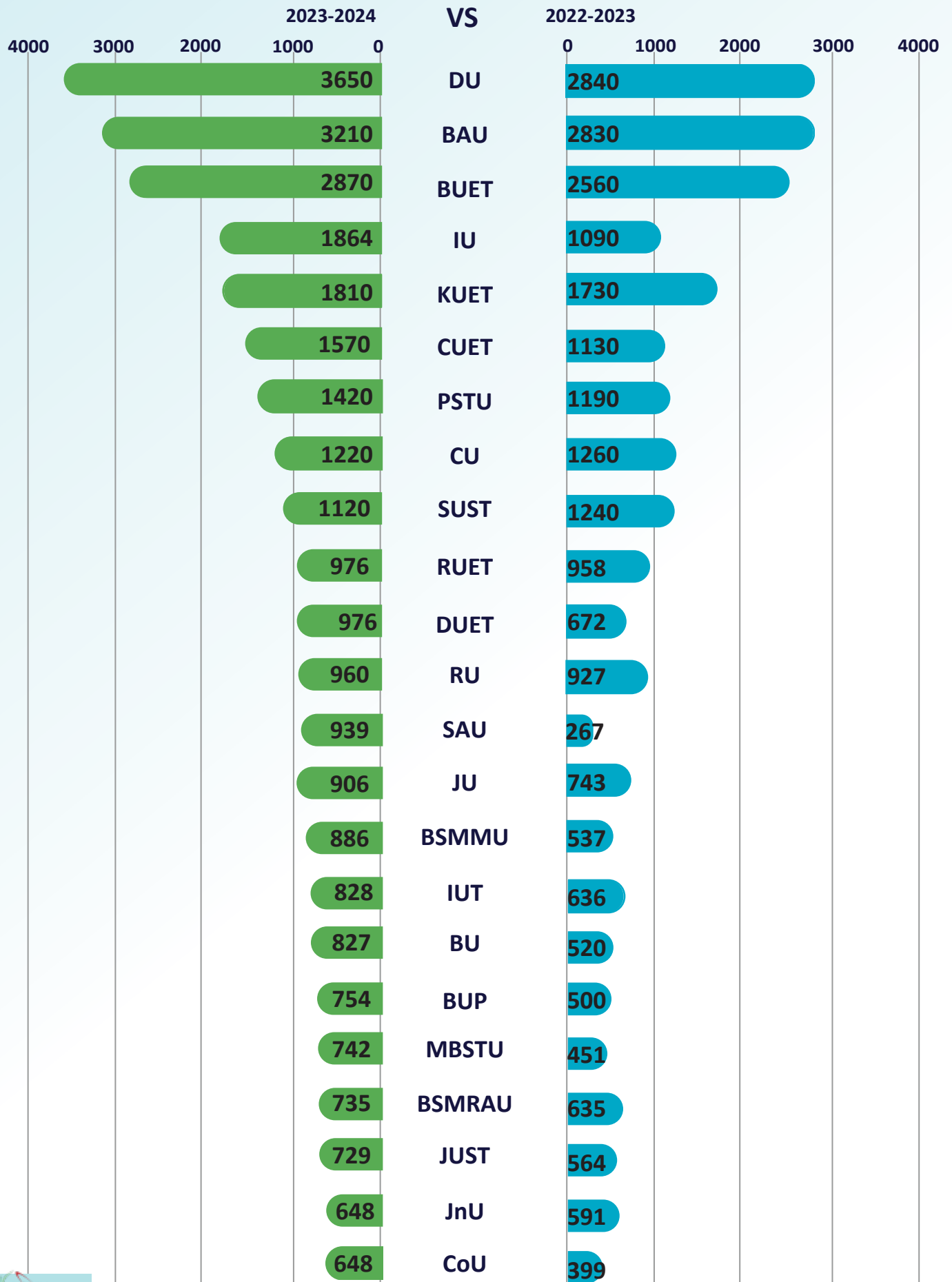
With full BTCL backup
Average Monthly Outage:

26 minutes

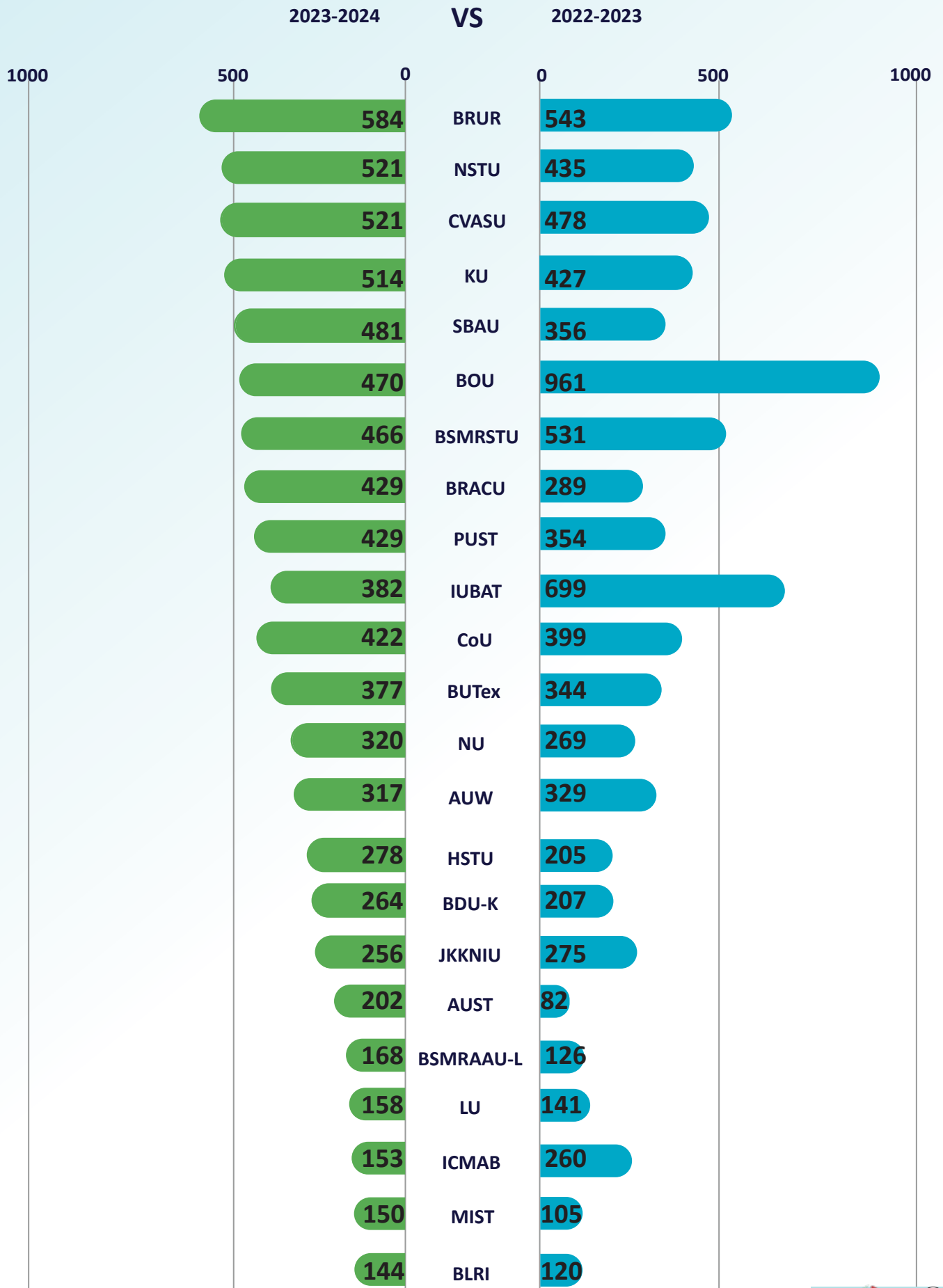
With full BTCL backup
Average Monthly Outage:

21.6 minutes

COMPARISON OF BANDWIDTH, >600 Mbps



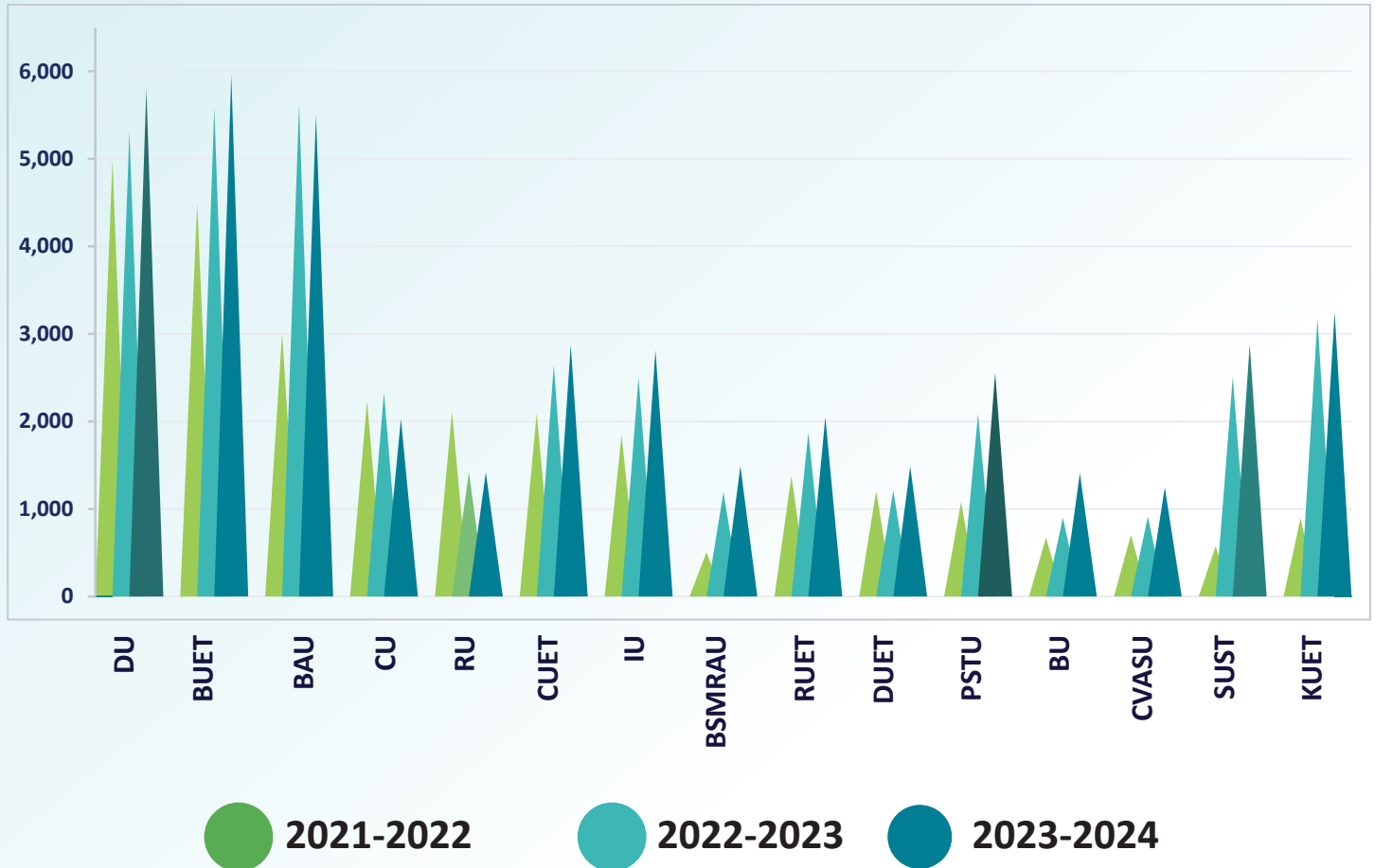
COMPARISON OF BANDWIDTH, <600 Mbps



Institutional Throughput [Top-15], TB

From 2021-22 to 2023-24

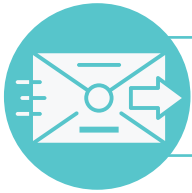
ANNUAL GROWTH



Notes:

- 2021-22** DU stands atop with 4982TB of throughput
- 2022-23** BAU stands atop with 5621TB of throughput
- 2023-24** BUET stands atop with 5956TB of throughput

Customer Experience Story



Launch of SMTP Relay Service for Bulk Emailing



BdREN recently launched an innovative SMTP relay service designed to handle bulk emailing, aimed at supporting universities in managing their large-scale email communications effectively. To meet the university's needs, we implemented Postal as the 'Mail Transfer Agent' (MTA), a robust and dependable solution known for its efficiency in managing bulk emails. Postal ensured seamless delivery of university's communications, ensuring their emails landed on inbox of thousands of recipients without delay or interruption.

One of the first adopters of this service is BRAC University, which required a reliable solution for sending essential notices, promotional materials, and circulars to its students and faculty members. BRAC University now enjoys a more efficient and reliable bulk emailing system, empowering them to stay connected with their students and faculty with ease.

Later on, Bangladesh Agriculture University (BAU) has integrated BdREN's SMTP relay with their ERP system to send emails. Moreover, University of Barishal (BU) is using this service for one of their research projects.

"BdREN's SMTP relay service has significantly enhanced our ability to communicate with our students and faculty. The implementation of this service has proven to be incredibly reliable and efficient, ensuring that our important notices and promotional emails are being delivered promptly to thousands of recipients. The seamless setup and exceptional support from BdREN made the entire process smooth, and we are extremely satisfied with the results. This service has truly improved our communication channels, allowing us to stay connected with our community more effectively."



*Mohammad Aminul Islam
Assistant Director of IT
BRAC University*



Stand-out & Flagship Achievements

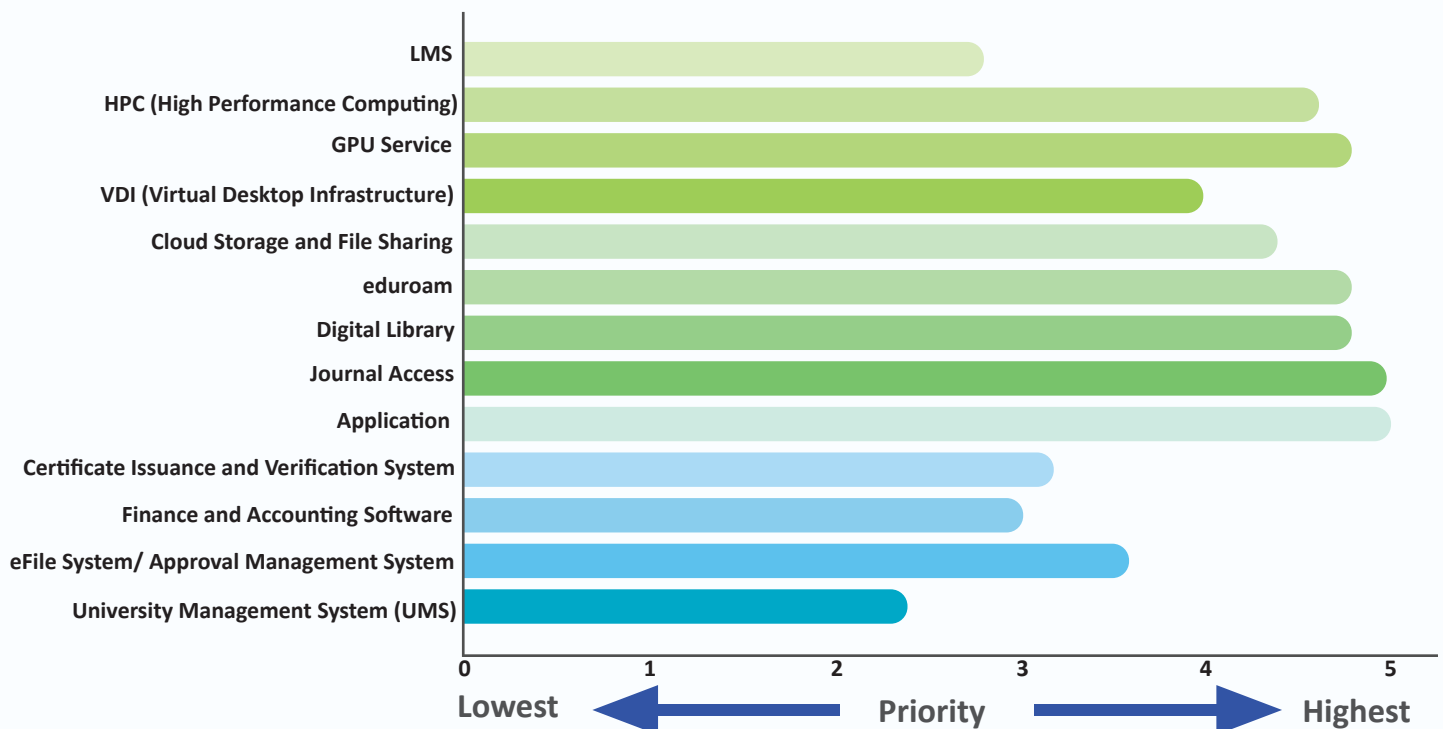
Breaking Barriers and Building Bridges: Collaborative Efforts to Strengthen Ties between BdREN, UGC, and Non-Government Universities

On 16 November 2023, BdREN and the Private University Division of the University Grants Commission (UGC) of Bangladesh hosted a pivotal workshop in Dhaka, titled “Enriching Higher Education Leveraging BdREN Resources.” The event brought together 32 representatives from non-govt. universities across Bangladesh to address their unique needs and shape the digital future of higher education. Key challenges identified included the demand for affordable bandwidth, cloud services, and hands-on training.

In response, BdREN’s technical team developed customized service packages focusing scalability and sustainability. Transparent pricing and offerings were achieved in collaboration with the Private University Division of UGC.

To ensure continuous progress, BdREN and UGC agreed to introduce a feedback mechanism, committing to monthly review meetings with universities to refine services and tackle emerging challenges. Additionally, a strategic roadmap was devised, focusing on priorities like expanding internet access, boosting digital literacy, and improving access to digital resources. Plans for capacity-building workshops have been initiated to help faculty and students maximize the benefits of these resources.

Average Priority of Services as Given by University Representatives



This workshop and its outcomes have strengthened partnerships between BdREN and non-government universities, paving the way for a digitally transformed higher education landscape in Bangladesh. By bridging gaps between institutional needs and technological solutions, this collaboration promises to foster innovation, research, and inclusive learning for future generations.

BdREN Partners with APAN to Develop Multilingual FileSender Application



In a significant collaboration aimed at facilitating seamless data sharing among researchers and academicians, the Bangladesh Research and Education Network (BdREN) joined forces with the Asia Pacific Advanced Network (APAN) to develop a groundbreaking application called FileSender. The project, funded by Asi@Connect under its “Targeted Call” initiative, seeks to address the growing need for large file-sharing solutions with efficiency, comfort and due effectiveness in the academic and research community.

Recognizing the growing need for efficient data sharing among academic communities, the heart of this project is the creation of FileSender, a web portal designed to streamline the process of sharing larger files of varying sizes among users.

Moreover, acknowledging the diverse linguistic landscape of the Asia Pacific region, FileSender is able to translate the portal into over 20 languages, ensuring accessibility and usability for a wide range of users. This multilingual approach ensures that users from diverse backgrounds can utilize the platform with ease, fostering greater collaboration and knowledge exchange on a global scale.

A pivotal moment in this endeavor came with the signing of a contract between APAN and BdREN solidifying their partnership and commitment to delivering FileSender to the academic community. The contract was signed by the APAN Chair, on behalf of APAN and Mohammad Tawrit, CEO, BdREN on behalf of Bangladesh Research and Education Network.

This contract signifies a shared vision of designing and building the application leveraging on BdREN’s expertise in Software Development, Data Center and Network Infrastructure with the assistance from APAN Secretariat to drive positive changes and advancements in research and education.

With the support of Asi@Connect and the expertise of both BdREN and APAN, FileSender is a cornerstone tool for researchers and academicians in the Asia Pacific region. The community is looking forward to the positive impacts of FileSender Application on knowledge exchange and collaboration within the academic community.

Journey Towards Enabling Seamless e-Resource Access in Bangladesh



In March 2023, BdREN set out to apply TIGERfed, Bangladesh's first and only Identity and Access federation, in offering universities and research institutions access academic e-resources. The journey began at the “iFiRExMAN task force” meeting during APAN55 in Kathmandu, Nepal, where the vision to create an accessible digital resource infrastructure took shape. However, our pace was initially slow and our goal was a bit uncertain due to the lack of local expertise and limited guidance on this new technology.

A turning point arrived in June 2023 when Ts. Muhammad Farhan Sjaugi from the SIFULAN Malaysian Access Federation visited Dhaka to conduct a series of workshops with the BdREN team. For three days, BdREN Engineers were engaged in gaining practical insights into building and managing an identity federation. This hands-on training program gave our engineers the confidence to start implementing TIGERfed with all its paraphernalia.

Armed with new skills, BdREN engineers initiated pilot projects with universities like BUET, SBAU, and KUET, gradually expanding the facility to 18 member institutions. These universities began experiencing the benefits of TIGERfed - seamless and remote access to valuable academic resources from IEEE, Emerald, JSTOR, and many other publishers. For many institutions, TIGERfed became the automatic choice to replace costly overseas federation services like “Open Athens”, providing an affordable and sustainable alternative.



To secure broader acceptance, BdREN hosted a full-day seminar on April 29, 2024, titled “Enhancing Access to e-Books/e-Journals through TIGERfed”. The primary objective of that seminar was to familiarize attendees with the advancements of TIGERfed and its role in facilitating access to e-Books and e-Journals for academicians, both on-campus and off-campus. This event was a game-changer, drawing librarians and academic leaders from across the country, from both Public and Non-Govt. Universities.



Prof. Dr. Muhammed Alamgir, Chairman (acting) of UGC, as the 'Chief Guest', Prof. Dr. Haseena Khan, Member of UGC as the 'Special Guest' and Prof. Dr. Abdullah Shams Bin Tariq from the University of Rajshahi as the 'Keynote Speaker' underscored the importance and benefits of TIGERfed besides shedding light on the seminar's objective and expected outcome. Notable Publishers such as Taylor & Francis, Oxford University Press, Emerald Publishing, Springer Nature and IEEE showcased their e-Resources collection and discussed various subscription methods, highlighting TIGERfed's potential in extending sustainable academic access benefitting the end users.

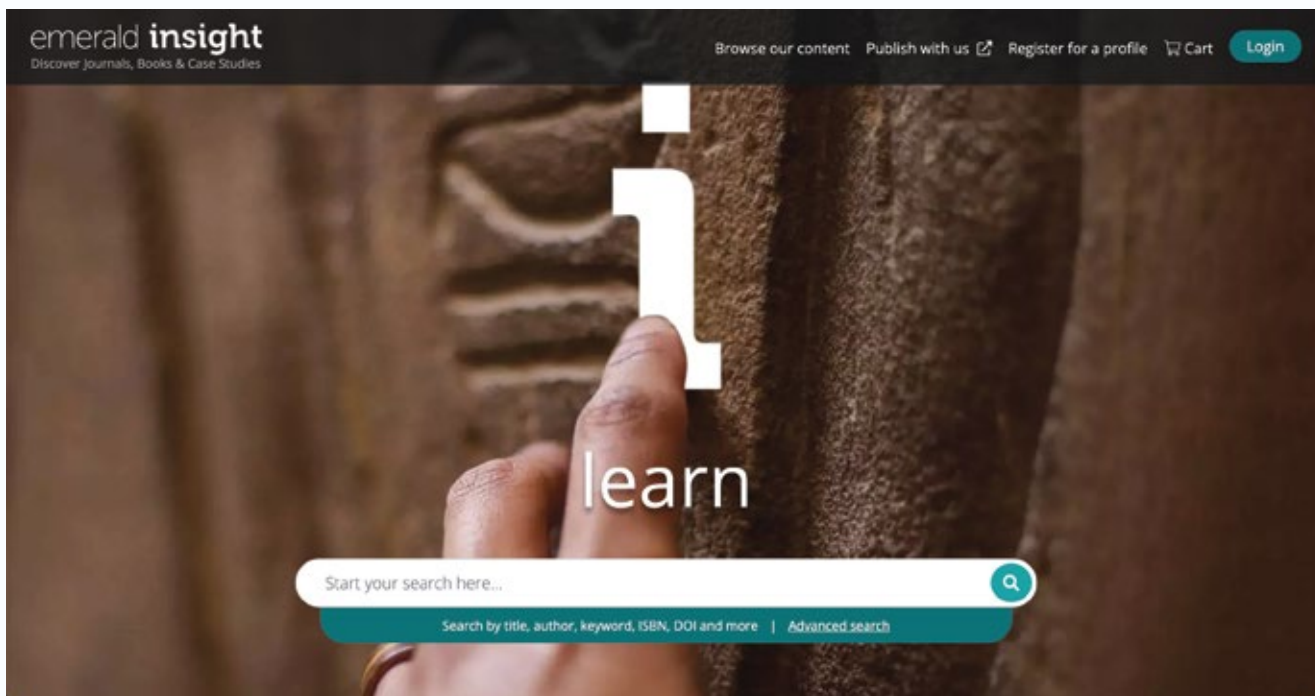
The seminar's success led to widespread adoption, but technical challenges remained; particularly in integrating TIGERfed with international publishers. Through persistent communication and troubleshooting, BdREN Engineers managed to link most of BdREN's members with global e-resources via eduGAIN. Today, TIGERfed is a gateway for Bangladeshi academia to access vital digital content, free of the burdensome costs previously associated with similar services.

The journey to establish TIGERfed wasn't easy; but it was a story of resilience, collaboration, and commitment to academic excellence. With each challenge overcome, we paved the way for a more connected and empowered academic & research community in Bangladesh.



Facilitating Access of “Emerald” Journals for National University and its affiliated Colleges

In 2024, BdREN secured access to Emerald’s 197 Journal Titles, covering over 20 years of research content, for the National University Bangladesh and all of its Colleges. This acquisition was made through the UGC Digital Library (UDL), a consortium managed by the University Grants Commission of Bangladesh. BdREN fully funded the two-year license for 2024 and 2025, providing over one million students and teachers access to high-quality academic and research resources. The Emerald Journal Collection covers key fields like management, education, and health, enhancing research and learning opportunities.



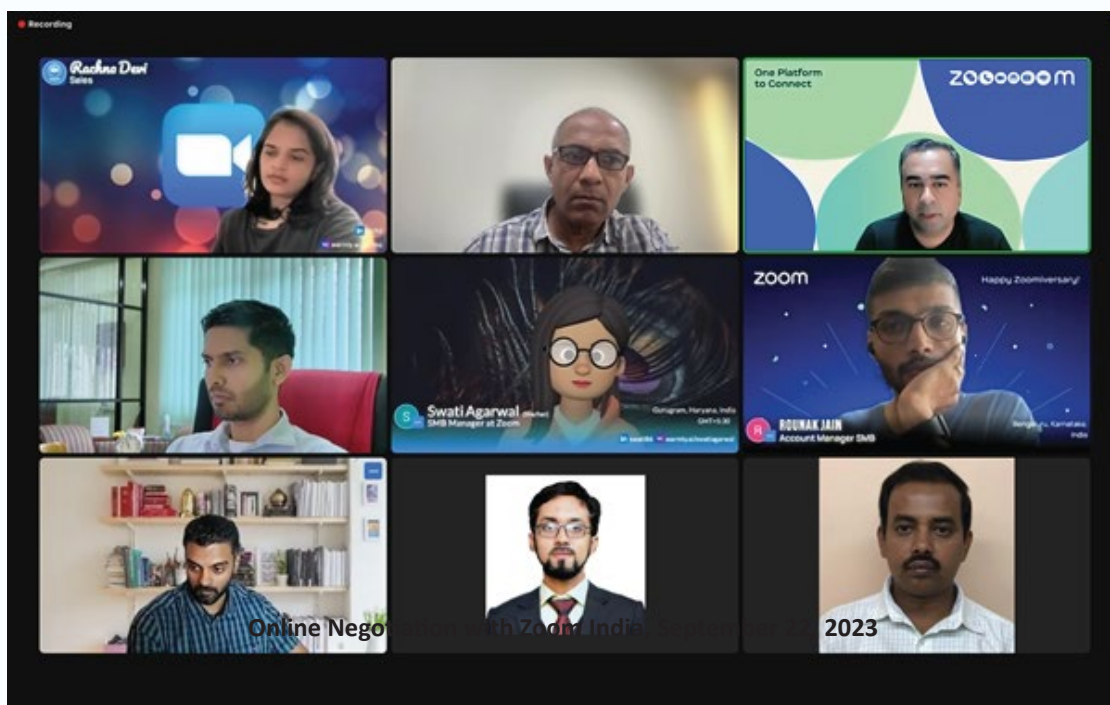
This initiative not only supports academic excellence but also positions Bangladesh’s education system to align with global standards. BdREN’s funding has removed financial barriers, offering free access to international research for students and educators. By improving access to these resources, the initiative will elevate the academic quality and research capabilities in the colleges under National University. The collaboration between BdREN and National University, with the help from UGC, demonstrates a strong commitment to advancing education and innovation in the country. This investment is expected to foster a new generation of researchers, contributing to Bangladesh's socio-economic growth.



Successful Negotiation with ‘Zoom’, Ensuring Continuity of Zoom Access at Affordable Price

On June 23, 2023, Erik Kikkenborg of NORDUnet announced to the beneficiary NRENs, including BdREN, LEARN, DrukREN, ThaiREN, LERNET, and CamREN, that NORDUnet would no longer provide Zoom licenses under the BeLISAC project from September 1, 2023. This announcement posed a significant challenge, as NRENs required approximately 30,000 Zoom licenses at an affordable price for 3-5 years. With the guidance of Rene Buch, ex-CEO of NORDUnet, the NRENs united and strategized during APAN57 in Colombo, focusing on finding the appropriate Zoom contact to get the deserved solution under the umbrella of South and East Asian countries’ REN (SEACREN).

Rene initiated discussions with Zoom’s leadership in the USA, which redirected the case to Zoom, India. Official communication began on August 30, 2023. The next hurdle was defining NRENs’ requirements, including the number of licenses, contract tenure, and service modality. Initially, NRENs favored an “on-prem” solution, but Zoom insisted on a “cloud” approach. After intense deliberations and discussions, the NRENs agreed to the cloud model on September 22, 2023 and requested Zoom authority to submit the final offer.



Zoom India promptly provided its final offer on 25 September 2023, which included a one-month free license. The offer was found as a lucrative and affordable one. The contract was finalized on 27 September 2023. NORDUnet ensured accounts remained active until 31 October 2023, facilitating a seamless migration to SEACREN accounts on 12 October 2023.

BdREN played a pivotal leadership role in coordinating with Zoom India, ensuring uninterrupted service for all beneficiary NRENs. This effort exemplifies BdREN’s dedication to fostering collaboration and supporting digital infrastructure across the region.

Computational Resource Enhancement of BdREN: Another Story towards Researchers' Heaven

The Bangladesh Research and Education Network (BdREN) has long been a crucial resource for researchers and academics in Bangladesh, providing cutting-edge data center resources like servers, storage, and a virtualization platform. However, as demand for computing power continues to grow daily, the existing infrastructure has become insufficient in catering the demand. Researchers across various fields depend on BdREN's resources for complex simulations, large-scale data analysis, and academic management. The soaring demand quickly outstripped the current system's capabilities.

To meet the increasing demand for computational power, BdREN decided to invest in two powerful new servers, each equipped with 96 CPU cores and 512 GB of memory. These upgrades promised a significant boost in processing speed and multi-threading capabilities. Additionally, BdREN has acquired 100TB of NVMe storage, known for its high throughput and low latency, allowing for faster data access compared to traditional storage solutions. This enhancement is set to greatly improve the performance of data-intensive tasks like genome sequencing, AI model training, and high-resolution climate simulations.

In addition to these hardware upgrades, BdREN has optimized its virtualization platform to support multiple Virtual Machines (VMs) on a single physical server, enabling more flexible and scalable resource allocation. This improved platform not only enhances efficiency but also ensures better resource isolation, so that performance remains stable and secured, even under heavy workloads. Together, the added computational resources and upgraded virtualization platform create a seamless, high-performance environment for research and academic activities.

With these new resources, BdREN is ushering in a new era of research possibilities in Bangladesh. Researchers now have access to the processing power and speed needed to run complex models, analyze vast datasets, and drive innovation at an unprecedented pace. This upgrade aligns with BdREN's broader vision of establishing a "Researchers' Heaven," where computational constraints no longer limit the potential for discovery.



As BdREN continues to advance and expand, it's clear that the path to "Researchers' Heaven" is built on visionary investments, state-of-the-art technology, and a steadfast commitment to supporting the research and academic community.

BdREN Helps BUP Launch Online Certificate Verification System: A Leap Towards Digital Transformation

BdREN has partnered with Bangladesh University of Professionals (BUP) to develop an innovative Online Certificate Verification System. This platform allows users to verify the authenticity of academic credentials by using registration IDs or roll numbers. The initiative is part of a broader strategy to enhance the digital services provided by academic institutions in Bangladesh and build trust in the country's educational credentials.

This system offers a clear improvement over traditional manual verification methods, which are often time-consuming and paper-intensive. By simply entering the degree holder's registration ID or roll number, users can instantly cross-check the information with BUP's database. The system delivers verification results within seconds, making the process not only faster but also more secured. This reduces the likelihood of fraud or tampering and ensures greater reliability.

To mark this achievement, a formal signing ceremony was held between BUP and BdREN. The agreement was signed by Air Commodore Md Reza Emdad Khan, ndc, psc, GD (P), Treasurer of BUP, and Mohammad Tawrit, CEO of BdREN, in the presence of senior officials from both organizations. This collaboration highlights the commitment of both institutions to advancing digital transformation in education.



Agreement Signing on Certificate Verification System between
BdREN and BUP on 24 September, 2024 at BUP premises

The success of this system could encourage other universities in Bangladesh to adopt similar platforms, driving a collective effort to modernize education. Plans are already in place to enhance the system with features like encrypted QR code-based verification, digital signatures, and a blockchain security layer, ensuring robust protection against forgery. This initiative showcases how academia and technology can come together to tackle real-world challenges and support Bangladesh's journey towards a Digital Nation.

Connecting the Unconnected: BdREN's IdPoLR Deployment

Identity Federation revolutionizes digital identity management by enabling users to authenticate once using local credentials and access multiple systems and services across various domains without requiring multiple logins. It builds trust between identity providers (IdPs) and service providers (SPs), streamlining authentication while improving user convenience and security. This approach relies on standardized protocols such as SAML, OAuth, and OpenID Connect to ensure interoperability and secure data exchange.

In the Research and Education Network (REN) community, SAML-based identity federation facilitates secure and seamless access to a wide range of academic and research resources. By allowing users to log in with their home institution credentials, SAML simplifies access to collaborative tools, databases, and online platforms. This single sign-on (SSO) approach reduces the need for multiple credentials, enhancing security and efficiency for researchers, students, and faculty members who rely on resources across multiple Service Providers.

Limitations of SAML-based Identity Federation

Despite its strengths, SAML-based identity federation presents several challenges. Its implementation and maintenance require substantial technical expertise and resources, which can be a significant hurdle for smaller institutions. Ensuring interoperability between different SAML setups can also be complex, often leading to compatibility issues. Scalability is another concern, as the growing number of users and services demands continuous upgrades. While SAML provides robust security, improper configuration can leave systems vulnerable to attacks. Additionally, users may face a steep learning curve when transitioning from traditional authentication methods, further slowing adoption.

Solution Proposal: IdPoLR

Recognizing the limitations faced by institutions without SAML capabilities, BdREN introduced the Identity Provider of Last Resort (IdPoLR) for the APAC region. This innovative solution enables non-SAML institutions to participate in federated networks, bridging the gap in federated access and expanding inclusivity.

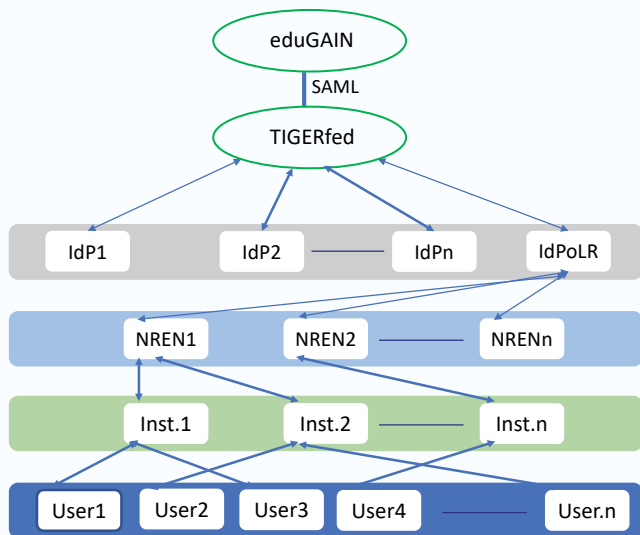
Overview of IdPoLR

IdPoLR functions as a universal backup identity provider, ensuring institutions getting access to federated services without using SAML infrastructure. By offering an alternative authentication method, IdPoLR simplifies access to digital resources and fosters inclusivity within the REN ecosystem.

Architecture of IdPoLR

In the IdPoLR architecture, NRENs are created virtually, with institutions grouped under each NREN and users assigned to their respective institutions. Users self-register themselves through a portal, and their registration is approved by the institution's administrator. Institutions and their administrators are created by the NREN's administrator, streamlining the process.

Communication between IdPoLR and the National Identity Federation (TIGERFed) occurs via SAML. TIGERFed, in turn, connects to eduGAIN using SAML, enabling non-SAML institutions, users, and NRENs to access SAML-based federated services. This automated process bridges the gap between non-SAML and SAML infrastructures.



Architecture of IdPoLR

Benefits of IdPoLR

- **Extended Access:** Non-SAML institutions gain access to federated services without overhauling their systems.
- **Simplified Integration:** Reduces the complexity and cost of adopting SAML for institutions.
- **Improved Collaboration:** Promotes resource sharing and collaboration among institutions previously excluded from federated networks.

Services Accessible Using IdPoLR

Currently, the APAC FileSender application, developed by APAN in collaboration with BdREN, is accessible via IdPoLR. This platform enables users to send large files to anyone with a valid email address, simplifying file sharing across institutions.

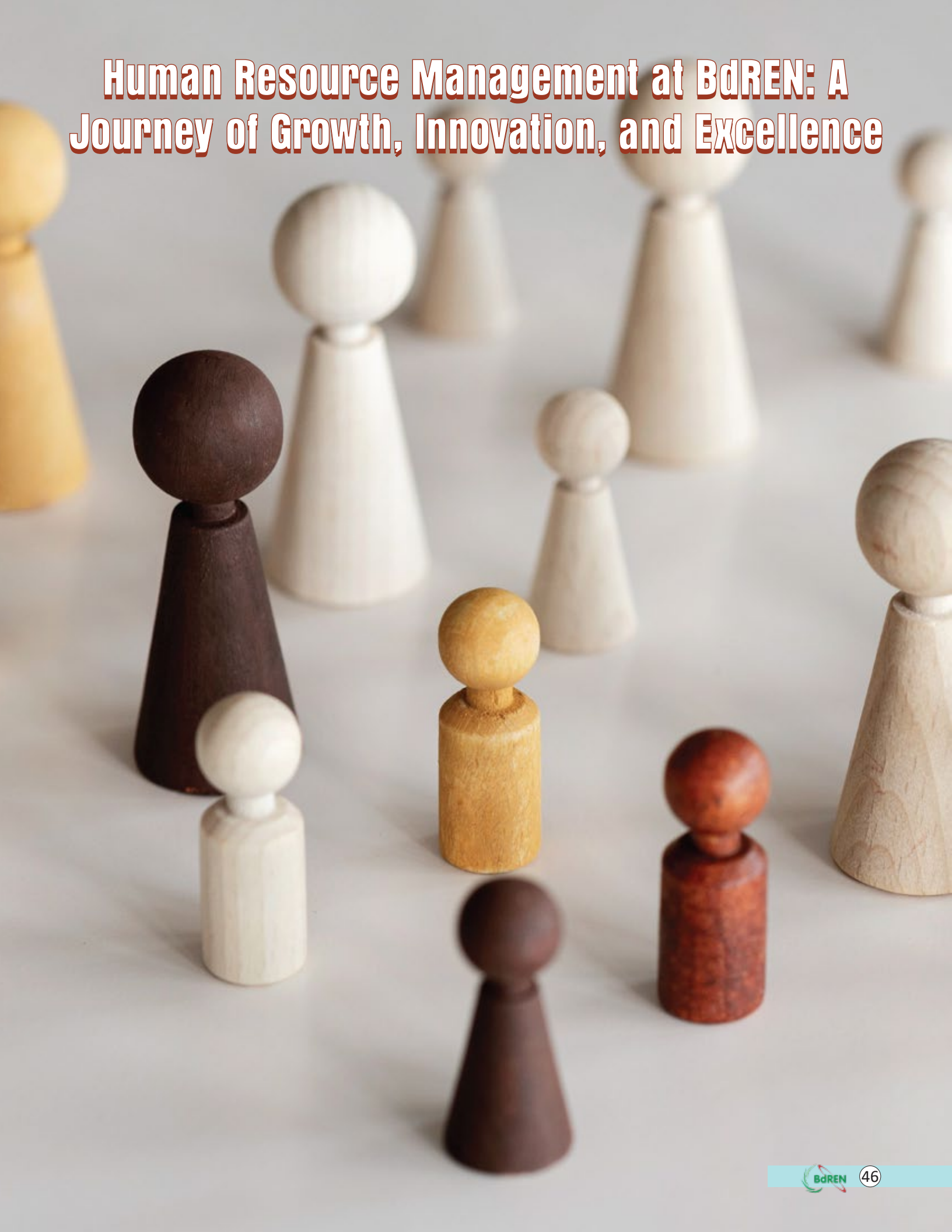
Limitations and Future Work

While IdPoLR offers significant benefits, challenges such as scalability, privacy concerns related to centralized data storage, and service isolation are still to be overcome. Future developments will focus on decentralized models, enhanced security, and institution-specific service customization to address these limitations.

Final Remarks

BdREN's introduction of IdPoLR, in partnership with APAN, marks a transformative step for inclusion of non-SAML institutions in the APAC region. By bridging the gap between traditional and federated authentication methods, IdPoLR fosters inclusivity, enabling broader participation in federated identity networks and enhancing access to vital e-resources and services. This innovation underscores BdREN's commitment to advancing digital collaboration in education and research.

Human Resource Management at BdREN: A Journey of Growth, Innovation, and Excellence



Since its official inception in 2019, BdREN has grown into a leading research and education network (REN) in the Asia-Pacific region, excelling in both technological infrastructure and human resource management (HRM). From a modest start with 35 employees, BdREN now boasts a team of 76. The dedication, quality, and commitment of its workforce have been instrumental to BdREN's achievements, making its human capital a core pillar of its success.

Success through People: The Power of BdREN's Workforce

The strength of BdREN lies in its people—highly skilled and deeply committed to their roles. BdREN's rigorous hiring process ensures that each team member brings expertise and passion, driving the organization's remarkable accomplishments. This focus on quality has created a workforce that continuously delivers exceptional results, firmly establishing BdREN as a leader in the industry.

Best HR Practices: Engaging, Motivating, and Empowering Employees

BdREN's HR practices are designed to foster an engaging and supportive work environment. Initiatives such as annual picnics with family, cricket tournaments, and office recreation facilities contribute to a sense of community and well-being among employees. Amenities like a coffee corner, green plants, and afternoon snacks enhance the workplace atmosphere, promoting a positive balance between work and life.



Flexible working hours and work-from-home options further demonstrate BdREN's commitment to employee satisfaction and productivity. These initiatives align with the organization's broader goal of creating an empowering environment where employees thrive and contribute to BdREN's ongoing success.

Training and Development: Fostering Continuous Growth

BdREN places great importance on the continuous growth and development of its employees. The HR department regularly organizes training sessions, both in-house and external, and employees are often sent to international workshops and training programs. This investment in skill development has significantly enhanced the capabilities of the workforce, enabling them to stay updated with the latest trends in their respective fields. Let's hear directly from some attendees of recent foreign trainings/seminars.



Md. Ariful Islam

Attending Preparatory Meeting for the Joint IPv4/IPv6 Research Project, Tsinghua University, China

"The Preparatory Meeting for the IPv4/IPv6 Joint Research Project brought together representatives from six national research networks and APNIC. The event focused on collaboration in IPv6 network management, covering BGP security, cybersecurity, and internet governance. I represented BdREN, explored CERNET, and attended DNSSEC training by APNIC. A bilateral meeting with Tsinghua University opened doors for future partnerships. I'm grateful to BdREN for this enriching experience in network security and governance."



Md. Ariful Islam Arman

Attaining eJPTv2 Certifications & CompTIA Cloud+ Certification and attending Seminar in China

"My recent training journey encompassed diverse yet complementary areas in cybersecurity, cloud infrastructure, and telecommunications. Through the eJPTv2 certification, I gained hands-on skills in penetration testing, exploring network vulnerabilities and ethical hacking. The CompTIA Cloud Certification enhanced my understanding about cloud architecture and management, bridging gaps between traditional and cloud-based environments. Additionally, attending a seminar in Wuhan, China, offered exposure to advanced communication technologies like GPON and 5G, with insights from industry leaders. Together, these experiences enriched my expertise across IT security, cloud, and telecom sectors."



Kamrul Hassan Shakil

Attaining CompTIA Security Certification and attending Hands-on exposure at HUAWEI CONNECT 2023 in Shanghai

"I gained a comprehensive understanding of cybersecurity principles, AI, network advancements, and cloud technologies. The certification improved my knowledge in areas like network security and cryptography, while attending HUAWEI CONNECT allowed me to explore cutting-edge innovations firsthand. These experiences collectively enriched my expertise in securing IT environments and aligning with current industry standards."



A Culture of Openness and Growth

Transparency and inclusivity are cornerstones of BdREN's HR strategy. Employees are encouraged to share their ideas and concerns openly, fostering collaboration and mutual respect. Regular promotions, salary increments, and comprehensive insurance coverage reflect BdREN's dedication to professional growth and welfare.

This commitment to growth and inclusivity extends beyond the organization, with BdREN providing internships to final-year university students as a part of its Corporate Social Responsibility initiatives. These internships offer valuable hands-on experience, nurturing future talent and contributing to the development of country's workforce.

Cultural Day Celebrations

BdREN celebrates cultural diversity and community engagement through events like Pohela Baishakh, Eid get-together, and Iftar Mahfils. These gatherings strengthen bonds among employees, fostering unity and a vibrant work culture



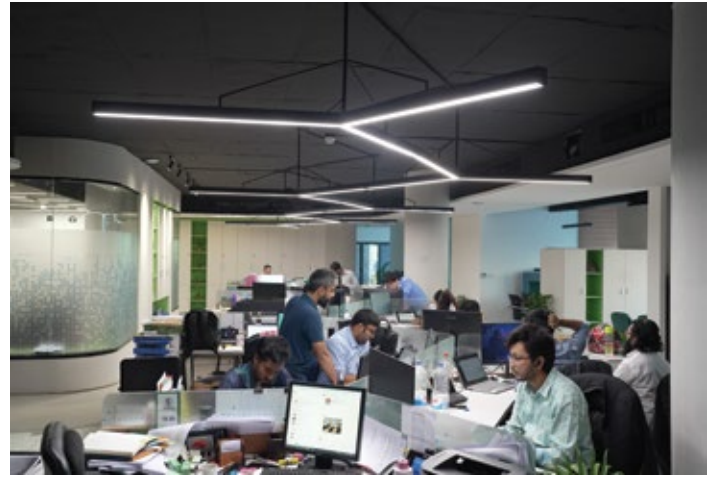
Migration to New Office Building at the heart of the City

A significant milestone in BdREN's journey this year is the relocation of its office to Navana HR Tower-2 on Tejgaon-Gulshan Link Road. Previously housed at the UGC Building in Agargaon since its inception in 2014, the organization's growing workforce and expanding operations necessitated a move to a larger, more strategically located space. After careful consideration, BdREN selected this modern facility to meet its evolving needs.

The new office, situated on the fifth floor of Navana HR Tower-2, is designed to inspire creativity, collaboration, and innovation. With advanced facilities, well-decorated workstations, and a thoughtfully planned environment, the space reflects BdREN's commitment to providing its employees with a workspace that fosters productivity and morale.



To celebrate this relocation, BdREN organized a grand inauguration ceremony on 07 July 2024 attended by prominent stakeholders from the education and research sectors. The event, chaired by Prof. Dr. Muhammed Alamgir, Vice-Chairperson of BdREN Trust, was graced by representatives from the Ministry of Education, the University Grants Commission, the World Bank, and other distinguished guests. In his remarks, Prof. Dr. Alamgir reaffirmed BdREN's mission to support higher education through cutting-edge infrastructure and collaborative efforts.



The strategic location of the new office enhances accessibility for stakeholders, facilitating stronger collaboration and engagement with the academic community. This move marks a new chapter for BdREN, symbolizing growth, transformation, and a commitment to excellence. The relocation underscores BdREN's focus on sustainability and innovation, setting the stage for even greater achievements in the future.

While the administrative and operational teams have moved to the new office, BdREN's Network Operation Center (NOC) and Data Center will remain at the UGC Building in Agargaon, Dhaka. These critical facilities will continue to operate seamlessly, ensuring uninterrupted service for member institutions.



As BdREN continues its journey, the new office will serve as a hub for innovation and progress, reinforcing its position as a leader in the digital transformation of Bangladesh's education and research sectors.

Collaboration and Cooperation: Projects and Similar Activities





Expanding BdREN's Reach: Connecting 114 Polytechnic Institutes under the "ASSET" Project

"Accelerating and Strengthening Skills for Economic Transformation (ASSET)" project, supported by the World Bank, has planned to implement accelerating and strengthening skills to generate employment for workforce and disadvantaged people under Directorate of Technical Education. This project was designed to be carried out during the period of July, 2021 - December, 2026 to strengthen the Technical and Vocational Education & Training (TVET) sector.



To Accomplish the project goal and as a part of the MoU, which signed on November 13, 2023, BdREN has already completed survey for high-speed network connectivity and for state-of-the-art campus network for all those 120 polytechnic institutes/colleges. BdREN also has completed the network design tasks and has submitted the corresponding cost estimations to the PMU. It is expected that BdREN connectivity will be established sooner for these polytechnic Institutes, under this project.

In this perspective, a Memorandum of Understanding (MoU) was signed between the Bangladesh Research and Education Network (BdREN) Trust and the Directorate of Technical Education under the Ministry of Education in order to study the existing and required network equipment, LAN connectivity and Internet connectivity for setting up an efficient and future oriented Campus Network in 120 diploma level institutions under the ASSET project.



BdREN and Patuakhali University of Science and Technology (PSTU) sign agreement for "Campus Network Maintenance" and "IP Transit Services"

On September 14, 2023, a formal agreement was signed between Bangladesh Research and Education Network and Patuakhali University of Science and Technology to enhance the university's technological infrastructure. The agreement ceremony was presided over by Professor Dr. Swadesh Chandra Samanta, the honorable Vice Chancellor, PSTU. The agreement includes BdREN's commitment to maintain PSTU's Campus Network and provide IP Transit services, ensuring reliable, high-speed internet connectivity with 99.50% availability. Prof. Mohammad Ali, PSTU's Treasurer, and Mr. Mohammad Tawrit, BdREN's CEO, signed the "Agreement".



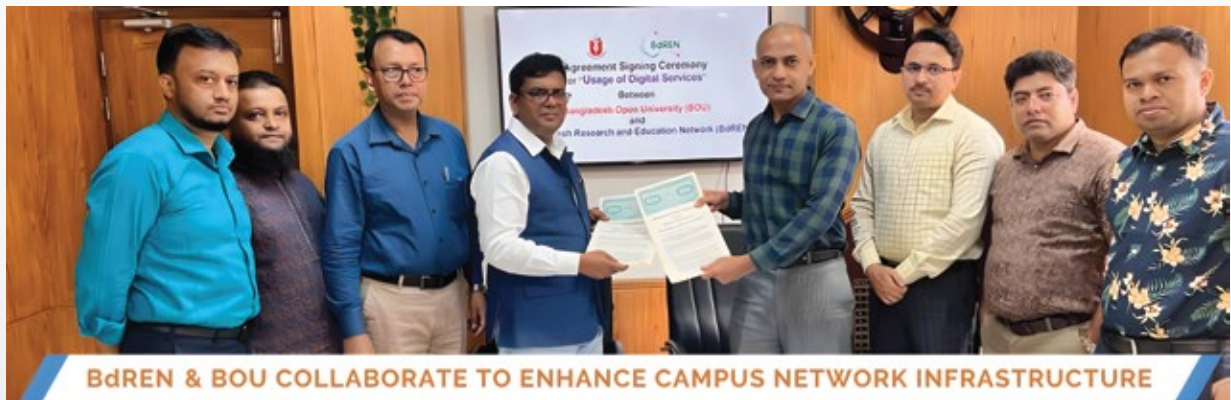


BdREN and Pabna University of Science and Technology (PUST) Collaborate to Boost Campus Network Infrastructure at PUST

On October 17, 2023, Bangladesh Research and Education Network (BdREN) and Pabna University of Science and Technology (PUST) formalized a partnership to enhance PUST's campus network infrastructure, marking BdREN's sixth campus network maintenance agreement. The signing ceremony, presided over by PUST Vice Chancellor Professor Dr. Hafiza Khatun, included BdREN CEO Mohammad Tawrit and PUST Treasurer Professor Dr. K.M. Salah Uddin. The agreement outlines BdREN's role in maintaining and improving PUST's network, boosting digital connectivity and technological capabilities.



BdREN and Bangladesh Open University (BOU) Collaborate to Enhance Campus Network Infrastructure at BOU



On November 18, 2023, Bangladesh Research and Education Network (BdREN) and Bangladesh Open University (BOU) established a partnership for maintaining and improving BOU's campus network infrastructure, marking BdREN's seventh campus network maintenance agreement. The ceremony, led by BOU Treasurer Prof. Mostafa Azad Kamal, included BdREN CEO Mohammad Tawrit and other key figures. This agreement aims to enhance BOU's digital connectivity and technological capabilities, supporting quality research and education.



Developing UMS for Non-Govt University- NBIU

BdREN has successfully developed and deployed the first phase of a fully automated University Management System (UMS) for North Bengal International University (NBIU). The system streamlines the entire admission process for both undergraduate and postgraduate programs, enabling students to apply online, pay fees securely through multiple gateways, and receive digital admit cards for viva exams. It also ensures compliance with UGC guidelines by automatically generating student profiles, reducing manual workload for administrative staff.

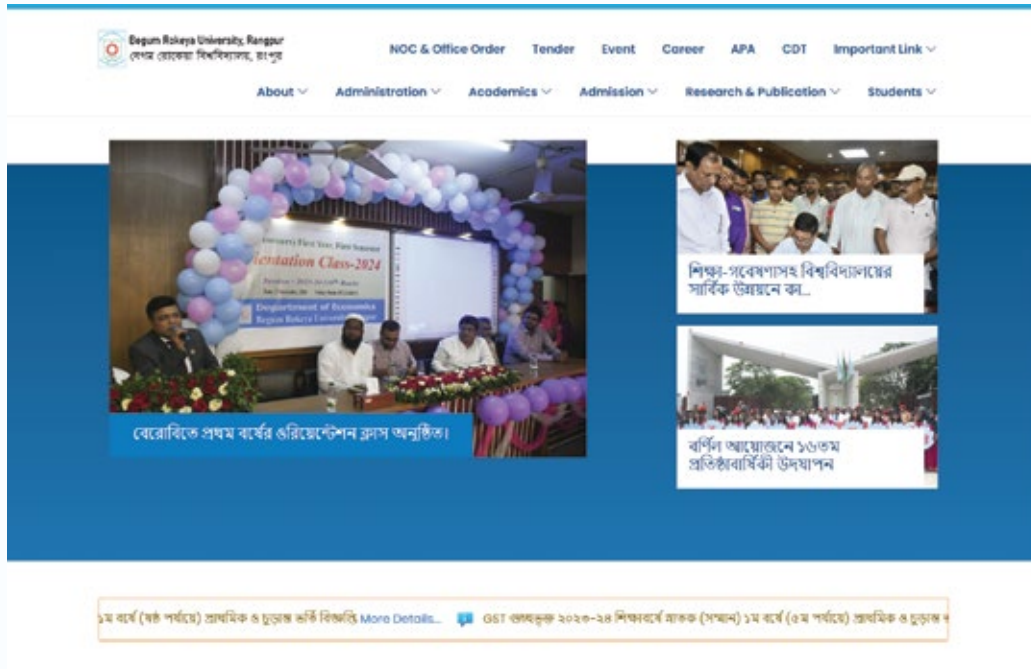


Beyond admissions, the system enhances administrative efficiency with features such as Research Repository, Online Certificate Applications, Result Publication, and Integrated Payment Management. The UMS also automates complex processes like fee adjustments, semester drops, and credit transfers. Additionally, its Financial Module simplifies transaction tracking, payroll management, and other essential financial operations, marking a significant improvement in operational transparency and accuracy.

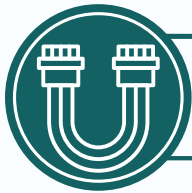
This collaboration between BdREN and NBIU is part of a greater vision to digitalize the research and education sector of Bangladesh. By offering tailored digital solutions, BdREN helps universities streamline processes and foster innovation, as part of BdREN's vision to act like a Researchers' Heaven. This initiative not only modernizes academic management but also supports BdREN's mission to empower higher education through cutting-edge technology, driving the nation's digital transformation in education and research.



Developing Website for BRUR



"BDREN successfully developed the new web portal for Begum Rokeya University, Rangpur (BRUR), accessible at <https://brur.ac.bd/>. BRUR and BDREN signed an MoU on April 29, 2024, to provide this service. The portal offers a user-friendly experience, allowing students, faculty, and visitors to easily access essential information and resources. BRUR has enthusiastically accepted the new platform, which aligns with their vision for digital transformation. BDREN has also provided training to the faculty members and administrative staff of BRUR on usage of the portal and its administration.



10 Gbps Optical Fiber Backbone Network inside IUT Campus.



Islamic University of Technology (IUT), a member of BdREN, is an educational and research institution located in Bangladesh and funded by the Organization of Islamic Cooperation (OIC). IUT boasts an aesthetically pleasing campus in Gazipur, one of the cities adjacent to the capital, Dhaka. The university is equipped with a state-of-the-art campus network that provides internet connectivity via LAN and Wi-Fi, covering the entire campus, including student residences.

Recently, the IUT authorities decided to upgrade their campus network backbone from 1GE to 10GE. This upgrade involved the installation of a redundant ring fiber network throughout the campus.

To achieve this objective, BdREN conducted a survey and designed the optical fiber backbone network according to IUT's requirements. Following this, IUT issued a purchase order to BdREN to carry out the upgradation of backbone capacity from 1GE to 10GE. BdREN successfully implemented the project and handed over the upgraded network on December 31, 2023, meeting all the specifications outlined in the purchase order and the contract.



Enabling Video Conferencing Facility to the Syndicate Room of HSTU

Hajee Mohammad Danesh Science & Technology University (HSTU) is a full-member university located in Dinajpur. BdREN, the National Research and Education Network (NREN), provides digital services to all public and non-government universities across the country. BdREN has established Distance Learning Theaters (DLT) and Distance Collaboration Centers (DCC) for the universities and the research institutions, respectively.

To facilitate online virtual conferencing in HSTU's syndicate room, the Honourable Vice-Chancellor of HSTU requested the CEO of BdREN to install a video conferencing facility, which would allow syndicate members to participate online during various conferences and meetings. To establish this facility, HSTU issued a purchase order in favor of BdREN, and the latter successfully installed and enabled video conferencing facility in the university's syndicate room.



Despite the associated challenges of integrating the existing PA system and multiple cameras with the newly built system, BdREN managed to fulfil the university's requirements successfully, within stipulated time.



BdREN Partners with BSMRAU to Extend their Campus Network

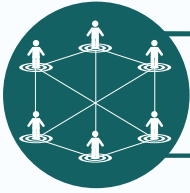


In a strategic collaboration with Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), BdREN was invited to conduct an extensive survey and prepare a budget to extend the university's campus network to two newly constructed buildings: Agriculture Building-2 and the Teachers Utility Building. Following the submission of a detailed survey and budget proposal, BSMRAU went for calling an open Tender. BdREN, through participations in the tender became the only 'Technically Responsive' bidder and was awarded with the contract. This achievement marking BdREN's first project secured through OTM process. This opportunity allowed BdREN to leverage its expertise to design and deploy a cutting-edge network solution that met the university's growing connectivity needs. The project, completed within a total budget of BDT 1,27,66,906.00 demonstrates BdREN's commitment to cost-effective and high-quality network solutions for educational institutions.

BdREN successfully completed the project within the specified timeline, establishing a reliable and robust campus network infrastructure in both new buildings. Notably, the New Teachers' Utility Building became the first campus facility where BdREN deployed Fiber to the Home (FTTH) technology, utilizing Gigabit Passive Optical Network (GPON) OLTs and Face Plate ONUs. This FTTH solution reduced the project's costs by nearly 30% and simplified future operations and maintenance, setting a new standard for BdREN's campus network projects.

In addition to the internal networking of the new buildings, BdREN laid 1,200 meters of underground fiber optic cable to seamlessly integrate the new infrastructure with BSMRAU's existing campus network. This fiber deployment not only enabled high-speed connectivity for the new facilities but also strengthened the entire campus network. The Agriculture Building-2, a 10-story facility with 363 end-user nodes, and the 10-story New Teachers Utility Building, housing 120 flats, are now equipped to support high-speed data transmission and advanced network services.

This pioneering project underscores BdREN's expertise in delivering innovative networking solutions tailored to the unique needs of educational campuses. Through this collaboration with BSMRAU, BdREN reaffirms its dedication to fostering academic and research connectivity across Bangladesh's educational institutions.



BdREN Successfully Completed DUET Campus Network Expansion Project

In a major accomplishment this year, BdREN successfully completed the DUET Campus Network Project, significantly enhancing intra-campus connectivity for Dhaka University of Engineering & Technology (DUET). Invited by DUET to conduct a preliminary survey, BdREN carried out a detailed assessment of the university's connectivity requirements, providing a comprehensive report to guide the project's design and execution. Based on this report, DUET awarded the project to BdREN through the Direct Procurement Method (DPM), entrusting BdREN to implement a reliable and future-ready network solution.



The project focused on connecting DUET's two campuses by laying 3.0 kilometers of underground fiber optic cable. To ensure network resilience, BdREN designed the fiber layout with redundancy, utilizing two distinct paths to safeguard against connectivity disruptions. This dual-path design has enhanced the reliability of the network, ensuring continuous, high-speed data flow between the campuses.

In addition to linking the two campuses, BdREN extended underground fiber within DUET's new campus to integrate it seamlessly with the existing network infrastructure. BdREN also established a wireless network on the first floor of one building in the new campus, providing immediate access to high-speed wireless connectivity for students, faculty members and staff.

The successful completion of this project not only demonstrates BdREN's commitment to delivering resilient, high-quality connectivity solutions but also reinforces its role in supporting educational institutions across Bangladesh. By partnering with DUET, BdREN is furthering its mission to create a connected and collaborative academic environment that enables institutions to reach their educational and research objectives.



BdREN Achieves Milestone with Approval to Deploy Meta's Content Cache Servers

This year, BdREN secured approval from Meta to deploy its content cache server, known as Facebook Network Appliance (FNA)/Meta Network Appliance (MNA) kits, in BdREN's Data Center. This strategic deployment will enable BdREN to efficiently deliver static content, including images and videos, for Meta's platforms—Facebook, Instagram, and WhatsApp—directly through BdREN's network.

With the integration of BdREN's Autonomous System Number (ASN 63961), this partnership marks a significant milestone in optimizing content delivery for the academic community. Once deployed, the FNA/MNA kits will offload a substantial amount of traffic from BdREN's upstream providers, freeing up resources and significantly enhancing network performance and reliability.



For students, faculty, and staff connected through BdREN's network, this advancement will provide a faster, seamless experience when accessing Meta platforms. By locally caching static content, BdREN will reduce latency, minimize buffering, and improve response times, ensuring a smoother user experience. This upgrade aligns with BdREN's mission to deliver world-class connectivity and cutting-edge digital resources to educational and research institutions across Bangladesh.

This achievement highlights BdREN's commitment to leveraging global partnerships and modern technology to serve the academic and research community. By deploying Meta's FNA/MNA kits, BdREN is set to enhance connectivity and collaboration across campuses, supporting a more digitally inclusive and connected educational environment.

This collaboration not only strengthens BdREN's infrastructure but also positions it as a key enabler in transforming Bangladesh's higher education sector through efficient and innovative digital solutions.

Overseas Involvement



Date: 23 August 2023

Topic of the First Session:

➤ **Internet Governance and the role of NRENs**

Speakers:

- Asitha Bandaranayake, LEARN
- Rajan Parajuli, Executive Director, NREN
- Dr. Mohammad Farooq Ali Tarafder, BdREN
- Bayani Benjamin Lara, PREGINET
- Chalernpol Charnsripinyo, ThaiREN

Outcome of the Session:

All the speakers' discussions evolved with the prevailing acts and laws governing cyberspace in respective countries.

Topic of the Second Session:

➤ **Cyber Sovereignty and Fragmentation of Internet**
Speakers:

- Han Liu, Tsinghua University, Beijing, China
- Pardis Moslemzadeh Tehrani, United Kingdom
- Khandakar Rashedul Arefin, BdREN
- Mahee Kirindigoda, Sri Lanka

Outcome of the Session:

The challenges pertaining to cyber sovereignty and fragmentation of Internet were unfolded by the speakers and the ways for overcoming those challenges were discussed.



Khandakar Rashedul Arefin presents exploring the role of NRENs in fostering a unified digital landscape

Overall Outcome: The attendees became more conversant about the significance of Internet Governance and the roles of the NRENs. The attendees gathered knowledge on the acts and policies currently in force in different countries and their application in controlling cybercrimes as well as restricting the privacy and human rights. The speakers portrayed a clear picture for the participants to visualize whether Internet Fragmentation is a reality or not.

REN Leaders Forum



CEO, BdREN delivering Keynote Speech in REN Leaders Forum Session

The APAN REN Leaders Forum was a closed assembly of C-Level executives and decision-makers from RENs across the Asia-Pacific region. Following the trail of GEANT, the forum was designed to facilitate high-level strategic deliberations and to serve as a platform for exchanges on the evolving challenges, opportunities, and trends shaping the REN community. The inaugural REN Leaders Forum was held at the APAN56 Meeting in Colombo, Sri Lanka. The vision of this initiative, as stated by the Convenor of the Forum and Consultant CEO of LEARN, Prof. Roshan Ragel, is for it to be a continuous gathering of REN leaders at APAN Meetings. This inaugural gathering at APAN56 consisted of two 90-minute sessions, followed by discussions between leaders, where they exchanged several ideas and strategies towards enabling their collective growth to empower researchers across the Asia-Pacific region.

In the first session the keynote speech was given by Mohammad Tawrit – CEO of BdREN on “The Landscape of NRENs in the Asia-Pacific Region Today”. The keynote examined the changing dynamics of NRENs in the APAC region and introduced the NREN Maturity Model, a comprehensive framework designed to assess the strength of NRENs based on 18 primary parameters, each further broken down into numerous sub-parameters. This model serves as a tool to evaluate the maturity of NRENs, pinpointing their strengths and areas for enhancement.



All Asia-Pacific REN Leaders attending the NREN Leaders Forum Session in a single Frame

Emerging NREN Forum

On 28 August 2023 BdREN organized the eNREN [emerging NREN] session in APAN56. This emerging NREN has become a forum in the APAN community which organizes regular sessions in every APAN event and APAN56 was not an exception. Two back-to-back sessions in the form of Panel Discussions were held as follows:

Session-1: Building a sustainable model for emerging NRENs



CEO, BdREN Speaking in the eNREN session

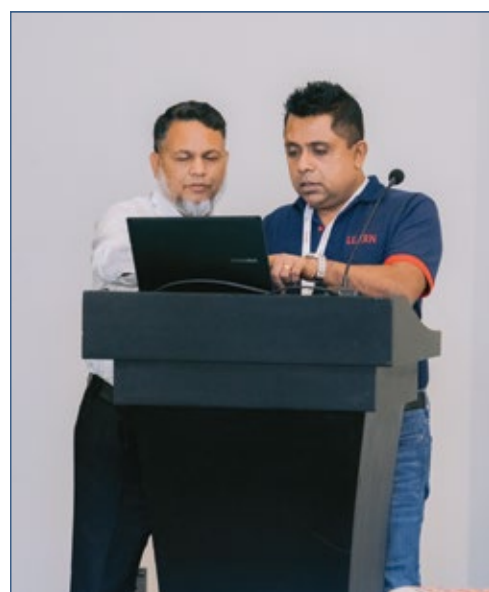
- **Host: Roshan Ragel, LEARN**
- **Lead Panellist: Mohammad Tawrit, BdREN**
- **Other Panellist:**
 - Mohd. Noh Jasmani, MYREN - online
 - Karma Jamyang, DrukREN - onsite
 - Chalernpol Charnsripinyio, ThaiREN - onsite
 - Rajan Parajuli, NREN – onsite
 - Waqas Masood) and Fawad Raza, PERN – onsite
 - Lorena G. Gomez Gaviria, Nokia – onsite

The sessions, as always, created special attention and focus among the community members.

Session-2: Developing a robust technical infrastructure and designing services for emerging NRENs

- **Host: Roshan Ragel, LEARN**
- **Lead Panellist: Basuki Suhardiman, IDREN**
- **Other Panellist:**
 - Mohd. Noh Jasmani, MYREN - online
 - Karma Jamyang, DrukREN - onsite
 - Chalernpol Charnsripinyio, ThaiREN - onsite
 - Somchanh Bounphanmy, LERNET - onsite
 - Rajan Parajuli, NREN – onsite
 - Waqas Masood and Fawad Raza, PERN – onsite
 - Satish, Nokia - onsite

The session ended with a high hope on designing and implementing cutting edge infrastructure and services among emerging NRENs.



Dr. Farooq, BdREN helping Dr. Asitha, LEARN in fixing his presentation in the eNREN session

Date: 30 January 2024

Topic:

- **Marketing and Communication Strategies of NRENs**

Speakers:

- John Chapman, Internet2
- Amber, REANNZ, NZ
- Shinji Shimojo, Japan (Chair of APAN Board of Directors)
- Khandakar Rashedul Arefin, BdREN, BD

A session was organized in APAN57 on 30 January 2024 to delve into the requirements of marketing for the NRENs and how NRENs are coming forward in mitigating those needs. Markus Buchhorn, ex-General Manager, APAN chaired the session with his usual flamboyance.

Khandakar Rashedul Arefin from BdREN demonstrated the Marketing Strategies of BdREN in his talk. Arefin also splendidly brought forward, in front of the audience, BdREN's marketing plan and activities in compliance with those strategies.

eNREN Sessions

Imbued by the resounding responses from all the participating NRENs in the sessions arranged for eNRENs during APAN56 in Colombo, BdREN planned to organize similar sessions in APAN57 to be held in Bangkok, Thailand from 29 Jan to 02 Feb 2024. The sessions were held in the mode of "Panel Discussion" where Mohammad Tawrit, CEO, BdREN acted as the "Lead Panelist".



Other panelists were Pema Dhendup from DrukREN, Asitha Bandarnayke from LEARN, Rajan Parajuli from NREN, Fawad from PERN, Basuki from IDREN and Chalerempol from ThaiREN.

Date: 31 January 2024

Session-1

► Topic: Building sustainable financial and business model for eNRENs

BdREN produced its Business Structure and Tariff Model clearly categorizing its services under “Cash-Cow”, “Flagship”, “Mostly Used”, and “Out of the way” categories. Moreover, the Revenue and Expenses of a few of the “self-finance” NRENs were unfolded to the audience. The session gave a complete picture about the financial landscape of the emerging NRENs in the Asia-Pacific region.



Prof. Alamgir, Governor [BdREN], Asi@Connect attending at the eNREN Session



Shaan and Liana of APAN Secretariat attending the eNREN session

Session-2

► Topic: Framing Strategies for eNRENs

In this session BdREN came up with its business strategies in establishing and promoting its services to its member institutions. All other NRENs joined BdREN unwrapping different business strategies adopted and nurtured by respective NRENs.

The panelists with their engrossing demonstration could make the sessions interesting, insightful and riveting for the audience.



Participants from Bangladesh in APAN57

SEACREN Launched to Unite NRENs in Empowering Researchers across South and East Asia

In the modern digital world, National Research and Education Networks (NRENs) play a pivotal role in advancing education and research. They empower institutions to share knowledge, enhance academic services, and collectively address national challenges. Moreover, when NRENs work with their regional counterparts, they're able to amplify their impact to drive regional progress.



Representatives of the founding NRENs of SEACREN signed the MoU announcing the consortium at APAN57 in Bangkok, Thailand. From L to R: Mohammad Tawrit (BdREN), Prof. Roshan Ragel (LEARN), Rajan Parajuli (NREN), and Pema Dhendup (DrukREN).

What is SEACREN?

SEACREN is a consortium of NRENs in South and East Asia, promoting strategic collaboration among its members. Comprising LEARN (Sri Lanka), BdREN (Bangladesh), DrukREN (Bhutan), and NREN (Nepal), SEACREN was officially established on January 31, 2024, at APAN57 in Bangkok, Thailand. With an open policy, SEACREN invites participation from all regional NRENs, enabling them to gain access to new services at affordable cost. This collaborative endeavour empowers the research and education community across the region.

Initial Achievement of SEACREN

In a pivotal inaugural move, SEACREN successfully negotiated an agreement with Zoom, facilitating the provision of discounted Zoom services to member institutions affiliated with all participating NRENs. Initially introduced during the pandemic, Zoom persists as a crucial tool in higher education for remote learning and collaboration. Beyond this milestone, SEACREN members are exploring additional services, such as plagiarism detectors, MOOC platforms, capacity development and research paper repositories, to enhance their collective offerings. This initiative underscores SEACREN's commitment to diversifying collaborative efforts, ensuring mutual benefits for researchers across the region.

The Long-Term Vision of SEACREN

As SEACREN forges ahead, it emerges as a driving force for equitable change in the South and East Asian research landscape. During the MoU signing ceremony at APAN57, CEO of BdREN, Mohammad Tawrit, emphasized the importance of actively contributing to building services and achieving better economies of scale through collaboration. SEACREN's commitment to working together surpasses mere cost savings, signifying a dedication to fostering equitable outcomes and empowering members to achieve more. Ultimately, SEACREN is poised to elevate the research and education landscape, contributing to the development of each member nation and bringing prosperity to the entire region.



Trainings, Workshops, Seminars & Industrial Visits

BdREN Helps NU in Organizing Four back-to-back Workshops on "Access to e-Resources to Enhance Academic and Research Excellence"



From May 19, 2024, BdREN and National University conducted four workshops at the National Academy for Education Management (NAEM), Dhaka, on "Access to e-Resources to Enhance Academic and Research Excellence." The workshops targeted librarians and faculty members from 120 Honors and Masters' Colleges and faculty members from National University, focusing on accessing 197 emerald journals via TIGERFED.

Prof. Dr. Md. Mashiur Rahman, Vice-Chancellor of National University, inaugurated the event and Prof. Dr. Mitul Nasiruddin moderated the sessions. Mohammad Tawrit, CEO of BdREN, and other National University Deans and Professors were present in each session to deliver their expert views.

The workshops, designed in a "Train the Trainer" format, featured hands-on training and discussions on e-Book and e-Journal access. Participants committed to share their knowledge with their colleagues upon returning to their colleges. BdREN's CEO expressed his commitment to arrange access to additional journals based on the success of this initiative.

BdREN Organized Two International Workshops on Safeguarding Research & Education Network at Beach City- Cox's Bazar



BdREN hosted two international workshops on "Network Security" from May 26-30, 2024, at the Long Beach Hotel in Cox's Bazar. Participants included international guests from Sri Lanka and Nepal, and local network engineers from various institutions.

The first workshop, "Safeguarding R&E Network," ran from May 26 to 28, 2024, organized under the Asi@Connect project and conducted by two expert instructors from APNIC.



The closing ceremony was graced by Prof. Dr. Md. Sazzad Hossain, Honorable Member of the University Grants Commission of Bangladesh, who served as the Chief Guest. In his address, Prof. Dr. Sazzad emphasized the importance of robust network security in this digital age and urged participants to contribute towards building a Digital Bangladesh.



During the ceremony, Prof. Dr. Sazzad distributed certificates to the participants, acknowledging their commitment to enhance their skills in network security arena. The participants included network engineers from 34 public universities, BRAC University, Varendra University, Asian University for Women, BTRC, BdREN, LEARN (Sri Lanka) and Nepal REN. The participants were engaged in comprehensive training modules, discussions, and hands-on activities throughout the workshop.

The workshop provided an invaluable platform for sharing knowledge and best practices in safeguarding R&E networks. As the event concluded, participants left with enhanced skills and strategic sense to strengthen the security and efficiency of their institutions' digital frameworks.

The second workshop, “Fortifying the Future: Building a Secure and Smart Campus,” took place on May 29-30, 2024, sponsored by Huawei Technologies Bangladesh Limited and led by a Huawei instructor. The workshop aimed to equip participants with the latest insights and techniques in campus security and smart technology integration.

The opening and closing ceremonies were graced by the esteemed presence of Prof. Dr. Muhammed Alamgir, Chairperson (additional charge) of BdREN Trust, who served as the Chief Guest. Dr. Md Sultan Mahmud, Director of IMCT Division, UGC, also attended as a special guest alongside Mohammad Tawrit, the CEO of BdREN, who delivered the welcome speech. Besides, Mr. Liu Shoufei Allen, Vice President and MD, Enterprise Solution, Huawei SA and Md. Jahirul Islam, Managing Director, Smart Technologies delivered their speeches as being proud sponsors of the event.





Sponsorship and other CSR Activities

BdREN Sponsored IEEE Event- 'ICCIT 2023' and Presented 'Invited Talk'



BdREN proudly sponsored the 26th IEEE International Conference on Computer and Information Technology (ICCIT 2023), organized by the IEEE Bangladesh Chapter. The event took place from December 13 to 15, 2023, at Hotel Long Beach, Cox's Bazar, Bangladesh.

During the conference, BdREN's Chief Technical Officer, Ekhlas Uddin Ahmed, presented an invited talk titled "BdREN - Emerging as Researchers' Heaven in Bangladesh". His presentation highlighted BdREN's role in revolutionizing digital infrastructure for education and research in the country.



The conference featured distinguished keynote speakers and participants from academia and industry, both online and in person. The event provided a collaborative platform for researchers and professionals to exchange ideas, showcasing BdREN's commitment to advancing academic excellence.

BdREN Hosts Female Internship Program under BelISAC Project



Female Interns celebrated their successful completion of the BdREN Internship Program, supported by TEIN under the BelISAC project, posing alongside BdREN CEO, Mohammad Tawrit, during their farewell event, held on July 23, 2023. The program provided valuable experience and professional development opportunities, marking a significant milestone in their careers.



BdREN proudly sponsored bdNOG17, held on December 12, 2023, at the Bangladesh Parjatan Corporation Convention Hall, Agargaon, Dhaka. Organized by the Bangladesh Network Operators Group (bdNOG), the event served as a critical platform for network professionals to share knowledge, discuss technical advancements, and enhance digital infrastructure in Bangladesh.

bdNOG, as part of the global NOG community, plays a significant role in promoting technical excellence, capacity building, and knowledge sharing in the Internet and networking sectors. Its contributions help improve network reliability, security, and efficiency across Bangladesh and beyond.

As a Gold Sponsor, BdREN reaffirmed its commitment to supporting initiatives that empower the country's digital landscape. BdREN also sent three participants to the event to gain technical insights and explore best practices that can enhance its network infrastructure.

Collaborating with organizations like APNIC—Asia Pacific's leading registry and training body—BdREN continues to synergize efforts in digitalizing Bangladesh's research and education sectors. By leveraging technical expertise and global best practices, BdREN aims to strengthen connectivity, facilitate research collaboration, and create a smarter digital future for universities and colleges across the country.

This sponsorship highlights BdREN's dedication to advancing digital innovation, fostering collaboration, and building capacity for a connected and research-friendly Bangladesh.

Students from DUET Embark on Insightful Industrial Visit to BdREN



A group of Computer Science and Engineering students from Dhaka University of Engineering and Technology (DUET) visited BdREN as part of their curriculum on 7 September 2023. This educational journey provided the students valuable insights into the realm of networking and technology.

The visit began with a welcome speech from CTO Ekhlas Uddin Ahmed, followed by presentations from BdREN's Network Engineers on server systems, routing & switching, and infrastructure. Media personality Ferdous Bappy also inspired the students with a motivational talk to pursue excellence in their academic and professional journeys.



The students then visited the BdREN Data Center and Network Operation Center, gaining hands-on experience with the technology and operations behind BdREN. The day ended with closing remarks from the CTO, summarizing the visit and its insights.



EVENTS & NEWS

BdREN inks MoU with Huawei for Advance Smart Education Initiatives



On January 22, 2024, Huawei Technologies (Bangladesh) Limited and Bangladesh Research and Education Network (BdREN) signed a Memorandum of Understanding (MoU) at the BdREN video conference room. The MoU, signed by Huawei's Vice President Allen Liu and BdREN's CEO Mohammad Tawrit, establishes a strategic partnership focusing on advancing smart education through technologies like HPC, Cloud, and AI. Huawei will provide high-speed internet enabling hardware and software to universities and research institutes in collaboration with BdREN.

Allen Liu expressed enthusiasm for the partnership, emphasizing Huawei's commitment to local talent development and transformative digital solutions for education. "Huawei is always committed to collaborating with ecosystem partners to digitize Bangladesh's education sector with innovative products and cutting-edge technology. This MoU will speed up the digital transformation process of Bangladesh's education sector, which will positively impact achieving the smart Bangladesh goal", Allen Said.



Professor Dr. Muhammed Alamgir, Acting Chairman of UGC and BdREN Trust Chairperson, highlighted BdREN's mission to enhance digital transformation in higher education and expressed optimism about Huawei's role in this process. Professor Alamgir said, "BdREN stands as a flagship organization in Bangladesh, working in a non-profit modality and providing high-speed, high-quality networking services to public universities in the education sector with the motto of making a digital transformation in the higher education community. The essence of BdREN lies in its altruistic mission. With the anticipation of Huawei's significant role

in the imminent IT revolution, we actively seek strategic partnerships to navigate the evolving landscape. Huawei's commitment is a source of optimism, and we aspire to leverage its capabilities to the fullest in building a society that empowers marginalized communities through technological advancements."

Recognition of outstanding dedication at work-place



At BdREN, the practice of Reward and Recognition is used to encourage exceptional performers among employees. Under such an initiative, BdREN honored veteran employees for their five years of dedicated service in BdREN on April 1, 2024. The event, chaired by CEO Mohammad Tawrit, celebrated the contributions of staff involved in various operations, including network management, Data Centre, Finance and administrative tasks.



Awarded employees shared their experiences, offering valuable insights to their peers. CEO, Mohammad Tawrit presented token gifts and highlighted the importance of integrity and commitment. He expressed his hope that the recognition would inspire BdREN officials to excel in their roles further.

Mr. Punam Chowdhury, Software Programmer, was honored for his outstanding contribution in developing the Finance module for BdREN, reflecting his dedication and expertise.

Audit Review and Awareness Meeting – Internal



BdREN arranges annual financial audits to ensure transparency and accountability in its financial activities. After the auditing is completed by an external firm, a closing meeting is held each year to review the findings and to reinforce BdREN's commitment at maintaining standard financial practices.

Inter-Department Cricket Tournament

Cricket, Bangladesh's most popular sport, is widely enjoyed across the country, particularly during the winter season. On 30th December-2023, BdREN organized an Inter-Department Cricket Tournament for its staff. Three teams competed for the championship, with two teams advancing to the final match. The tournament fostered excitement among employees and promoted a spirit of camaraderie and teamwork.



Participation in Corporate Tournament-2024

BdREN participated in a month-wide (February-2024) corporate cricket tournament, competing against other leading Organizations in the industry. The event provided an excellent opportunity for networking and showcasing team-spirit in a competitive setting.



BdREN Annual Picnic- 2024



BdREN's Annual Picnic 2024 was held on February 9th and 10th at the scenic Sarah Resort, Gazipur. Employees, their families, and distinguished guests, including UGC members, joined the two-day event filled with joy and happiness. The celebration featured games for all ages, from toddlers to adults, and an enchanting cultural program by employees along with the guest performers in the evening. Sightseeing, delicious food, and top-notch accommodations added to the memorable experience. Participants appreciated the relaxing environment and well-organized activities, making it a cherished occasion for all. The picnic truly reflected BdREN's spirit of unity and celebration.



Eid Get-together and Pahela Baishakh Celebration



Eid Get-Together and Pahela Baishakh 1431 were celebrated in a festive atmosphere with enthusiastic participation from the employees on 15th April, 2024. The events provided a vibrant opportunity for staff to come together, celebrate cultural traditions, and enjoy the spirit of the festivities.



Vice Chancellors' Frequent Visit to BdREN



The honorable Vice-Chancellors of BdREN's member institutes frequently visit the BdREN office. During one such visit, on 18th May, 2024, the Vice-Chancellor of the University of Chittagong Prof. Dr. Abu Taher met with the CEO of BdREN in his office.

Celebration of Five Years Completion and Entering Next level



On June 6, 2024, BdREN celebrated five years of dedicated service as a premier employer with a special workshop for its employees. The event, anchored by popular media personality Ferdous Bappy, provided a platform for BdREN staff to share their experiences, stories, and ideas for achieving the organization's ultimate goals.

During the celebration, BdREN honored a group of veteran employees for their unwavering commitment over the past five years. Chaired by the esteemed CEO, Mohammad Tawrit, the event saw enthusiastic participation from staff members at all levels.

The event recognized the dedication and hard work of these employees, who have been instrumental in various aspects of BdREN's operations, including managing the Transmission Network, overseeing the Data Center, and handling Financial and Administrative tasks. Their contributions have played a pivotal role in shaping BdREN's journey from its inception to its current standing.

Honored employees reflected on their experiences, sharing both the joys and challenges they encountered at BdREN. Their insights were deeply resonant and served as valuable lessons for others.

Tawrit congratulated the awardees, highlighting the importance of integrity, commitment, and ownership in their roles. He concluded with hopeful remarks, expressing confidence that this recognition would inspire and motivate both current and future employees to strive for excellence in their work."

Farewell to BdREN Trustees

"During its 50th meeting, held on 25th June, 2024, BdREN's Board of Trustees (BoT) welcomed three new members who were deputed in the positions vacated by four departing members. The retiring trustees were also present; and an informal farewell session was arranged in their honor.

In their valedictory speeches, the departing members expressed their profound satisfaction for getting the opportunity to contribute for the betterment of the organization. They pledged to continue supporting BdREN's mission from their respective positions in the future. The Honorable Chairperson presented crests and mementoes to the retiring trustees as a token of BdREN's gratitude for their significant contributions.

The new members shared their enthusiasm about joining the experienced Board and their eagerness to contribute to the organization's rapid growth. The departing Trustees included:

- ➔ Professor Dr. M. Kamruzzaman, Vice Chancellor, HSTU.
- ➔ Professor Dr. Swadesh Chandra Samanta, Vice Chancellor, PSTU.
- ➔ Professor Dr. Qumrul Ahsan, Vice-Chancellor, University of Asia Pacific.
- ➔ AKM Aftab Hossain Pramanik, Chairman, Bangladesh Parjatan Corporation.



Professor Dr. Qumrul Ahsan, Vice-Chancellor, UAP



AKM Aftab Hossain Pramanik, Chairman, BPC



Professor Dr. M. Kamruzzaman, Vice-Chancellor, HSTU

Meetings of Board of Trustees: Financial Year 2023-24

BdREN regularly convenes its Board of Trustees meetings, chaired by the esteemed Chairperson, with Trustees participating both onsite and on-line. These meetings, held periodically, address a wide range of critical issues concerning BdREN's operations, administration, and strategic direction. During these sessions, distinguished members of the Board engage in discussions aimed at advancing BdREN's network capabilities and approve key proposals essential to the organization's continued growth and success.



46th BoT Meeting, BdREN Conference Room at UGC;
Date: 16 August 2023



48th BoT Meeting, BdREN Conference Room at
UGC; Date: 26 December 2023



47th BoT Meeting, BdREN Conference Room at UGC;
Date: 16 October 2023



49th BoT Meeting, BdREN Conference Room at UGC;
Date: 23 April 2024



50th BoT Meeting, BdREN Board Room;
Date: 25 June 2024



Our Members

Full Members

Name of University	Public/Private	Name of University	Public/Private
1 University of Dhaka	Public	46 Bangabandhu Sheikh Mujibur Rahman Aviation And Aerospace University (BSMRAAU)	Public
2 University of Rajshahi	Public	47 Chandpur Science and Technology University	Public
3 Bangladesh Agricultural University	Public	48 Hobiganj Agricultural University	Public
4 Bangladesh University of Engineering & Technology	Public	49 Kurigram Agricultural University	Public
5 University of Chittagong	Public	50 Sunamganj Science and Technology University	Public
6 Jahangirnagar University	Public	51 North South University	Private
7 Islamic University, Bangladesh	Public	52 University of Science & Technology Chittagong	Private
8 Shahjalal University of Science & Technology	Public	53 Independent University, Bangladesh	Private
9 Khulna University	Public	54 International University of Business Agriculture & Technology	Private
10 National University	Public	55 International Islamic University Chittagong	Private
11 Bangladesh Open University	Public	56 Ahsanullah University of Science and Technology	Private
12 Bangabandhu Sheikh Mujib Medical University	Public	57 East West University	Private
13 Bangabandhu Sheikh Mujibur Rahman Agricultural University	Public	58 University of Asia Pacific	Private
14 Hajee Mohammad Danesh Science & Technology University	Public	59 Gono Bishwabidyalay	Private
15 Mawlana Bhashani Science & Technology University	Public	60 Asian University of Bangladesh	Private
16 Patuakhali Science And Technology University	Public	61 Dhaka International University	Private
17 Sher-e-Bangla Agricultural University	Public	62 Manarat International University	Private
18 Chittagong University of Engineering & Technology (CUET)	Public	63 BRAC University	Private
19 Rajshahi University of Engineering & Technology (RUET)	Public	64 Leading University	Private
20 Khulna University of Engineering & Technology (KUET)	Public	65 BGC Trust University Bangladesh	Private
21 Dhaka University of Engineering & Technology (DUET)	Public	66 Premier University	Private
22 Noakhali Science & Technology University	Public	67 Daffodil International University	Private
23 Jagannath University	Public	68 Stamford University Bangladesh	Private
24 Comilla University	Public	69 State University of Bangladesh (SUB)	Private
25 Jatiya Kabi Kazi Nazrul Islam University	Public	70 City University	Private
26 Chittagong Veterinary and Animal Sciences University	Public	71 Prime University	Private
27 Sylhet Agricultural University	Public	72 Green University of Bangladesh	Private
28 Jessore University of Science & Technology	Public	73 World University of Bangladesh	Private
29 Pabna University of Science and Technology	Public	74 Shanto-Mariam University of Creative Technology	Private
30 Begum Rokeya University, Rangpur	Public	75 Eastern University	Private
31 Bangladesh University of Professionals	Public	76 Uttara University	Private
32 Bangabandhu Sheikh Mujibur Rahman Science & Technology University	Public	77 United International University	Private
33 Bangladesh University of Textiles	Public	78 University of South Asia	Private
34 University of Barishal	Public	79 Bangladesh University of Business & Technology	Private
35 Rangamati Science and Technology University	Public	80 Presidency University	Private
36 Bangabandhu Sheikh Mujibur Rahman Maritime University	Public	81 University of Information Technology & Sciences	Private
37 Islamic Arabic University	Public	82 Primeasia University	Private
38 Chittagong Medical University	Public	83 Royal University of Dhaka	Private
39 Rajshahi Medical University	Public	84 University of Liberal Arts Bangladesh	Private
40 Rabindra University, Bangladesh	Public	85 Atish Dipankar University of Science & Technology	Private
41 Bangabandhu Sheikh Mujibur Rahman Digital University	Public	86 Bangladesh Islami University	Private
42 Sheikh Hasina University	Public	87 European University of Bangladesh	Private
43 Khulna Agricultural University	Public	88 Varendra University	Private
44 Bangamata Sheikh Fojilatunnesa Mujib Science and Technology University	Public	89 BGMEA University of Fashion & Technology (BUFT)	Private
45 Bangamata Sheikh Fazilatunessa Mujib Medical University	Public	90 Exim Bank Agricultural University, Bangladesh	Private
		91 Sonargaon University	Private

Name of College/Institute

- 59 Holy Family Red Crescent Medical College
- 60 Ibrahim Medical College
- 61 International VAT Training Institute
- 62 Kumudini Women's Medical College
- 63 MH Samorita Medical College
- 64 North East Medical College

Name of College/Institute

- 65 Notre Dame College
- 66 Rangpur Community Dental College
- 67 Rangpur Community Medical College
- 68 Shyamoly Textile Engineering College
- 69 TMSS Medical College

Honors and Masters Colleges

Name of College/Institute

- 1 Siddheswari Girls' College
- 2 Dhaka Commerce College
- 3 Mohammadpur Kendriya College
- 4 University Women's Federation College
- 5 Siddheswari College
- 6 Mohammadpur Mohila College
- 7 Hazrat Shah Ali Mohila Degree College
- 8 Dhaka City College
- 9 Shaikh Burhanuddin Post Graduate College
- 10 Habibullah Bahar College
- 11 Tejgaon College
- 12 Khilgaon Model College
- 13 Bhawal Badre Alam Govt. College
- 14 Tongi Govt. College
- 15 Government Saadat College
- 16 Kumudini Govt. College
- 17 Govt. G.B.G. College
- 18 Sakhipur Residential Mahila College
- 19 Kadirdi College
- 20 Government Debendra College
- 21 Govt. Tolaram College
- 22 Narayanganj College
- 23 Narsingdi Govt. College
- 24 Govt. Zillur Rahman Mohila College
- 25 Government Nazimuddin College
- 26 Govt. Bangabandhu College
- 27 Pangsha Government College
- 28 Kazi Mohammad Shafiqul Islam College
- 29 Cumilla Victoria Govt. College
- 30 Cumilla Government Women's College
- 31 Chandina Redwan Ahmed College
- 32 Chandpur Govt. Mohila College
- 33 Chandpur Govt. College
- 34 Puran Bazar Degree College
- 35 Government City College
- 36 Chittagong Govt. Women's College

Name of College/Institute

- 37 Govt. College of Commerce
- 38 Govt. Hajee Muhammad Mohsin College
- 39 Chittagong College, Chattogram
- 40 Patiya Govt. College
- 41 Govt. Zia Mohila College
- 42 Chowmuhani Govt. S. A. College
- 43 Rangamati Government College
- 44 Bandarban Government College
- 45 Cox's Bazar Govt. College
- 46 Cox's Bazar City College
- 47 Govt. Rashidazzoha Womens College
- 48 Islamia Govt. College
- 49 Govt. Azizul Haque College
- 50 Govt. Mujibur Rahman Women's College
- 51 Govt. Shah Sultan College
- 52 Syed Ahmed College
- 53 Nawab Siraj-Ud-Dowla Govt. College
- 54 Rani Bhawani Govt. Women's College
- 55 Sheikh Fazilatunnesa Muzib Women's (Honours) College
- 56 Naogaon Govt. College
- 57 Govt. BMC Women's College
- 58 Ishwardi Govt. College
- 59 Rajshahi Govt. City College
- 60 Rajshahi College
- 61 New Govt. Degree College
- 62 Rajshahi Government Mahila College
- 63 Nawabganj Govt. College
- 64 Govt. Begum Rokeya College
- 65 Rangpur Government College
- 66 Dinajpur Government College
- 67 Nilphamari Govt. College
- 68 Ranisankail Degree College
- 69 Uttar Bangla College
- 70 Azam Khan Govt. Commerce College
- 71 Govt. B.L. College

Name of College/Institute

- 72 Daulatpur Day/Night College
- 73 Khulna Govt. Mohila College
- 74 Government Sundarban Adarsha College
- 75 Govt. P. C. College
- 76 Jessore Govt. City College
- 77 Government M. M. College
- 78 Jashore Govt. Mohila College
- 79 Narail Govt. Victoria College
- 80 Satkhira Govt. Mahila College
- 81 Satkhira Govt. College
- 82 Kumira Mahila Degree College
- 83 Government K C College
- 84 Chuadanga Govt. College
- 85 Daulatpur College
- 86 Govt. H. S. S. College
- 87 Meherpur Govt. College
- 88 Jhalakathi Govt. College, Jhalakathi
- 89 Barishal Govt. Women's College
- 90 Govt. Syed Hatem Ali College
- 91 Barishal Govt. College
- 92 Government BM College

Name of College/Institute

- 93 Bhola Govt. College
- 94 Patuakhali Govt. College
- 95 Dakshin Surma Govt. College
- 96 Govt. M. C. College
- 97 Beanibazar Govt. College
- 98 Brindaban Govt. College
- 99 Moulvibazar Government College
- 100 Ananda Mohan College
- 101 Muminunnesa Govt. Mohila College
- 102 Shahid Smriti Govt. College
- 103 Gurudayal Government College
- 104 Kishoreganj Govt. Mohila College
- 105 Walinewaz Khan College
- 106 Govt. Ashek Mahmud College
- 107 Govt. Zaheda Safir Mohila College
- 108 Jahanara Latif Mohila College
- 109 Netrakona Govt. College
- 110 Sherpur Govt. College
- 111 Sherpur Government Mohila College

Industry Members

Name of Organization

Kazla Technologies Ltd

Spectrum Engineering Consortium
(Pvt.) Ltd.

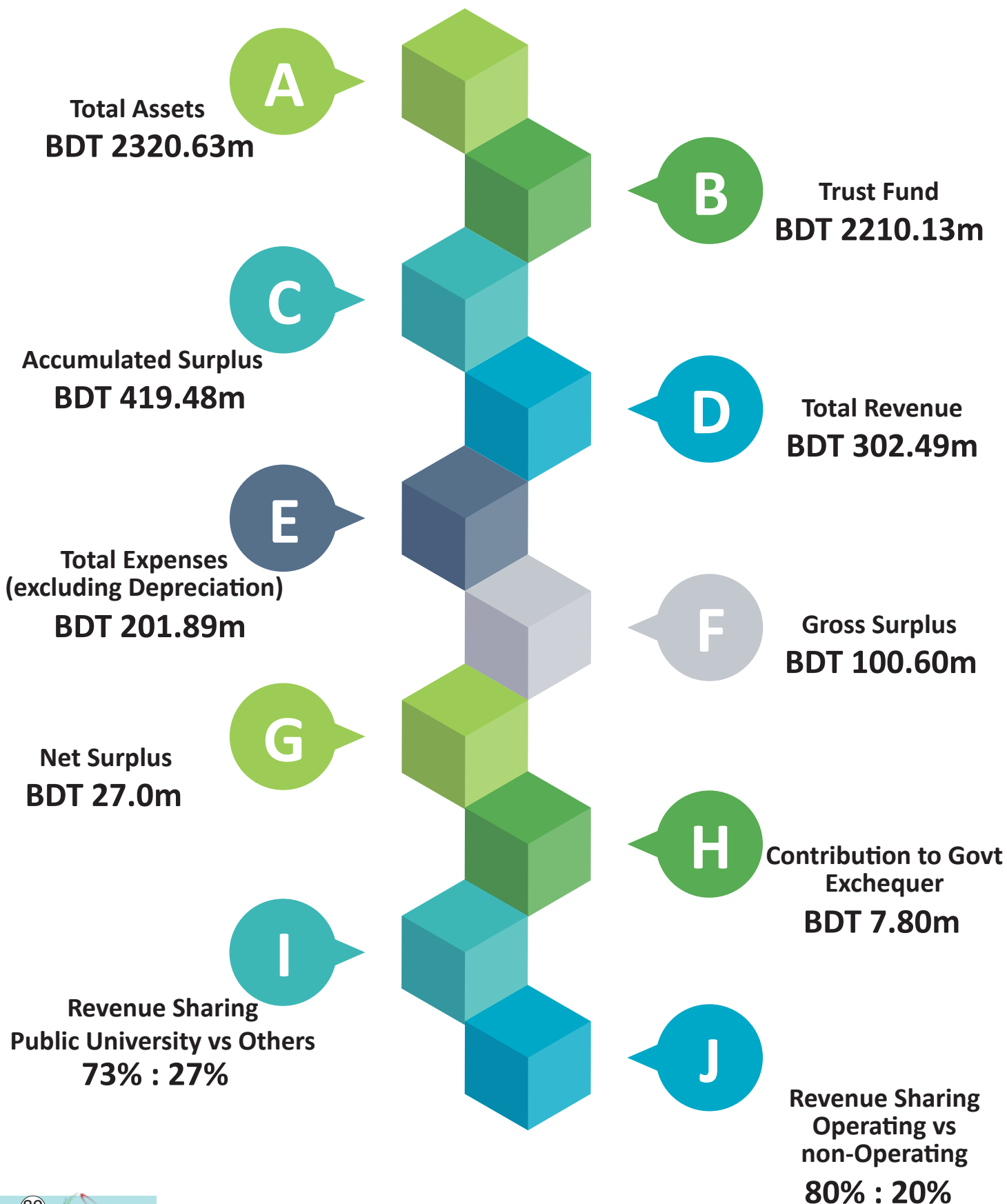
Data Edge Limited

Express Systems Limited



Financials

Financial Highlights [2023-24]



Distribution of BdREN Revenues FY 2023-24

Absolute Distribution of Revenues

All values in million BDT

Connectivity and Services

Includes Internet Services, Data Center Services, Video Conferencing, Consultancy and Others

Membership

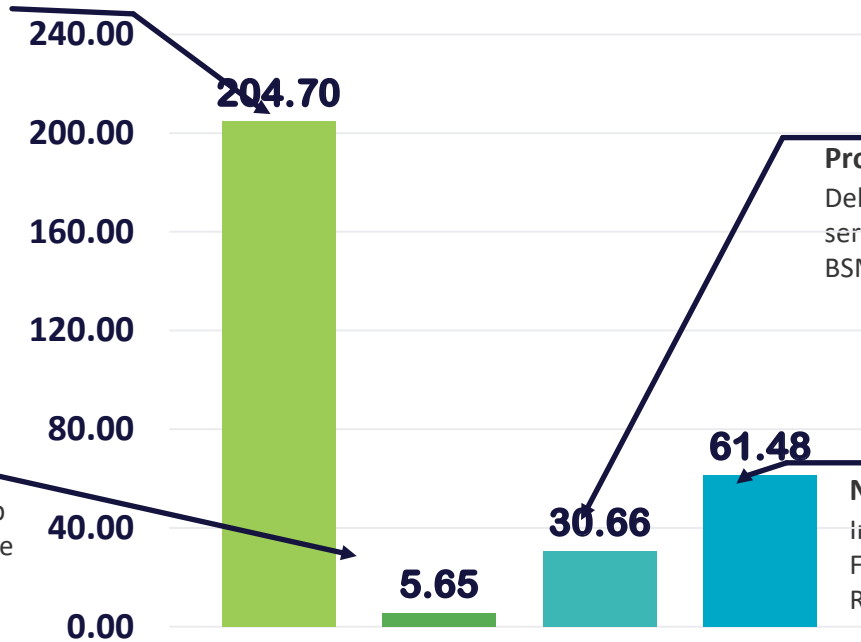
Includes the Membership Charges for Full, Associate and Industry Members

Project Revenue

Delivery of products and services at BSMRAAU, BSMRAU and HSTU.

Non-Operating Income

Interest from Fixed Deposit Receipt (FDR)



Total Revenue

BDT 302.49m



Connectivity and Services



Membership Fees

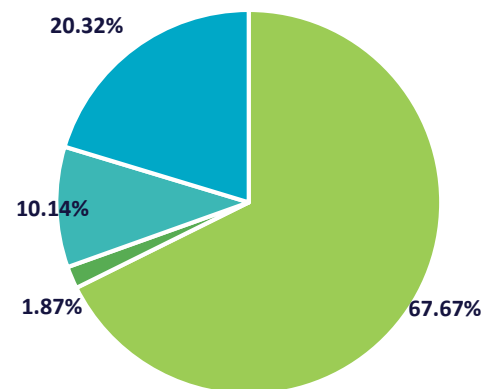


Project Revenue



Interest from FDRs

Percentage Distribution of Revenues

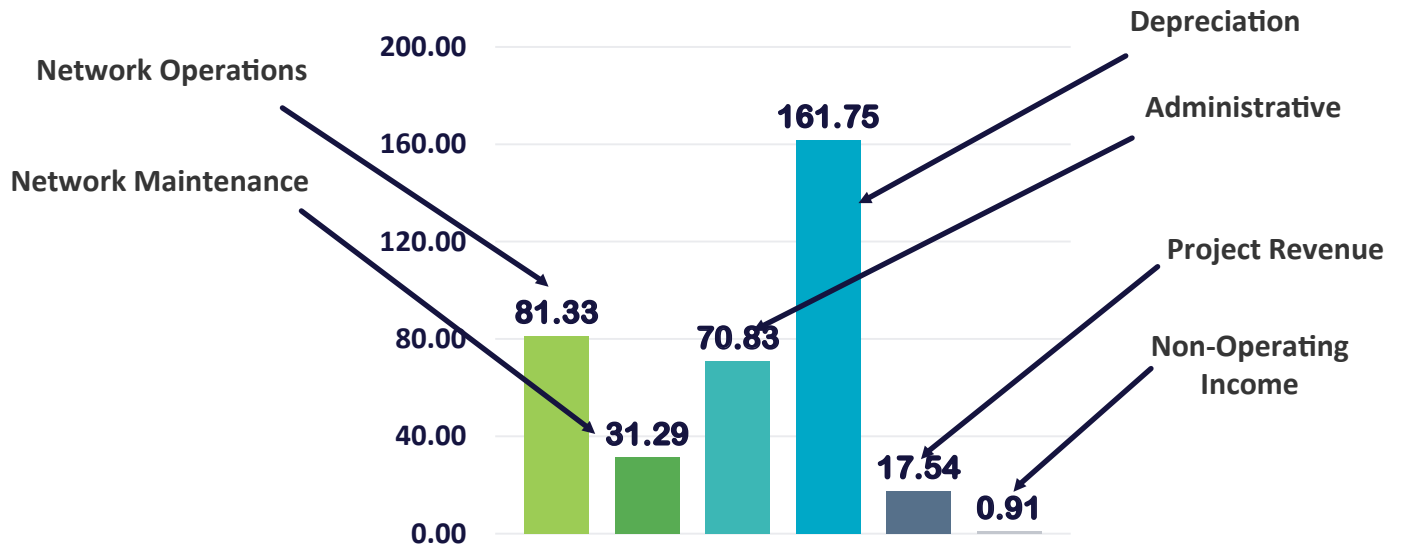


Distribution of BdREN Expenses

FY 2023-24

Absolute Distribution of Expenses

All values in million BDT



Total Expenses

BDT 363.65m

Percentage Distribution of Expenses



Network Operations

Bandwidth Charge, VPN Charge, Electricity Cost and others



Network Maintenance

Active Equipment and Passive Infrastructure Maintenance, Power Equipment Maintenance, Optical Fiber Network Maintenance, Transport Maintenance and others



General and Administrative

Cost of Human Resources in the form of Salary and Tour Allowances and other Administrative Costs



Project Expense

Expenses for running Development Projects mainly for the Member Institutions



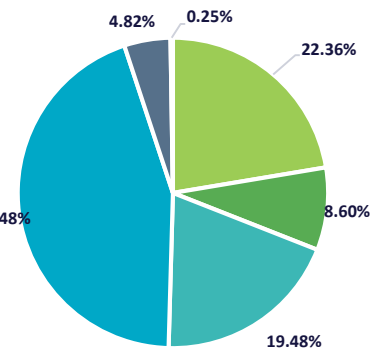
Depreciation & Amortization

Overall Depreciation of Equipment and Amortization of Intangible Assets



Non-Operating

Cost related to Excise duty and others



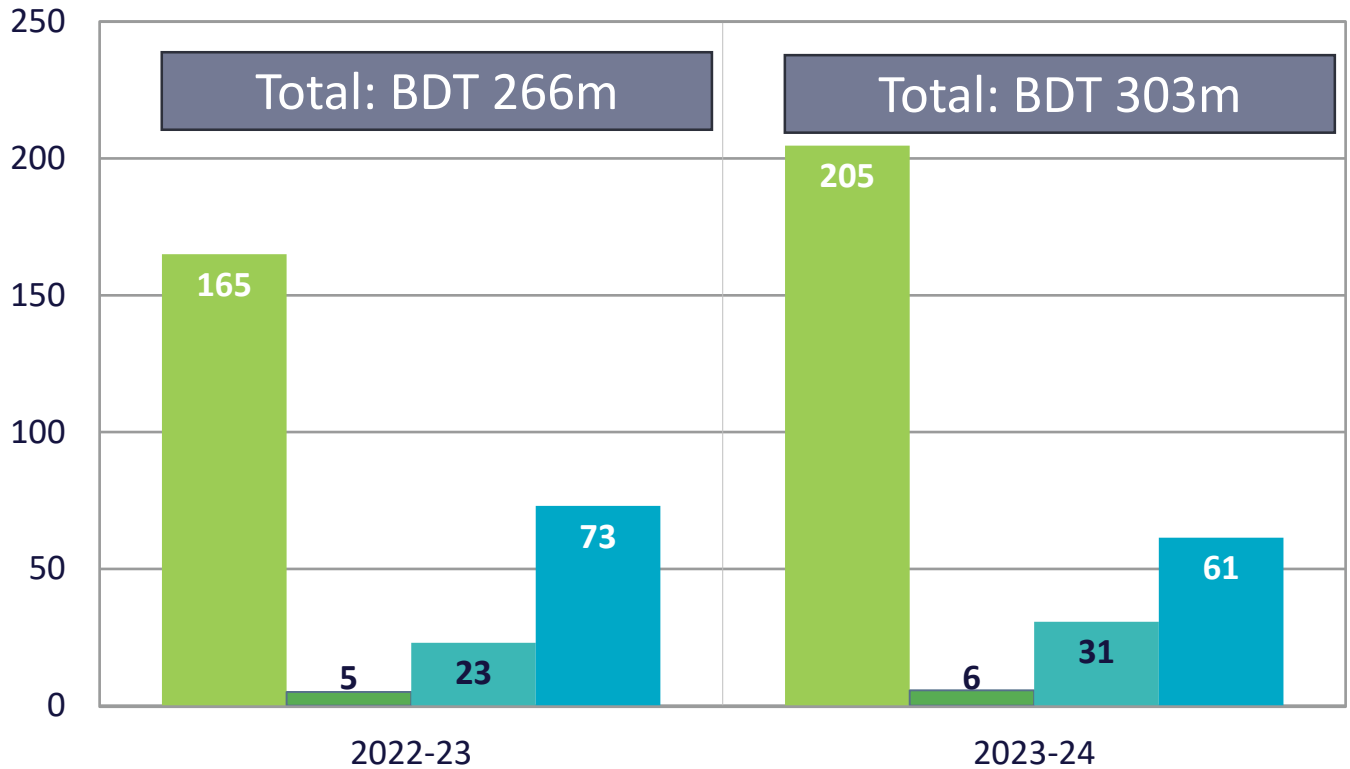
- Depreciation cost taking the dominant share (44.63%).
- Network Operations [22.31%] taking the second highest share.
- Administrative cost [19.56%] is the third.
- Network Maintenance Cost comes fourth as 8.54%.
- Project Expenses was 4.68% only.
- Non-Operating Cost was very minimal [0.28%].

Comparison of Account-wise Revenue

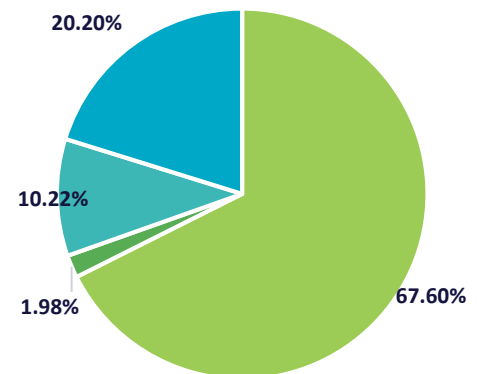
FY 2022-23 vs FY 2023-24

Comparison of Revenue

All values in million BDT



Percentage Distribution of Revenues



Connectivity and Services

Includes Internet Services, Data Center Services, Video Conferencing, Consultancy and Others



Membership Fees

Includes the Membership Charges for Full, Associate and Industry Members



Project Revenue

Delivery of products and services at BSMRAAU, BSMRAU and HSTU.



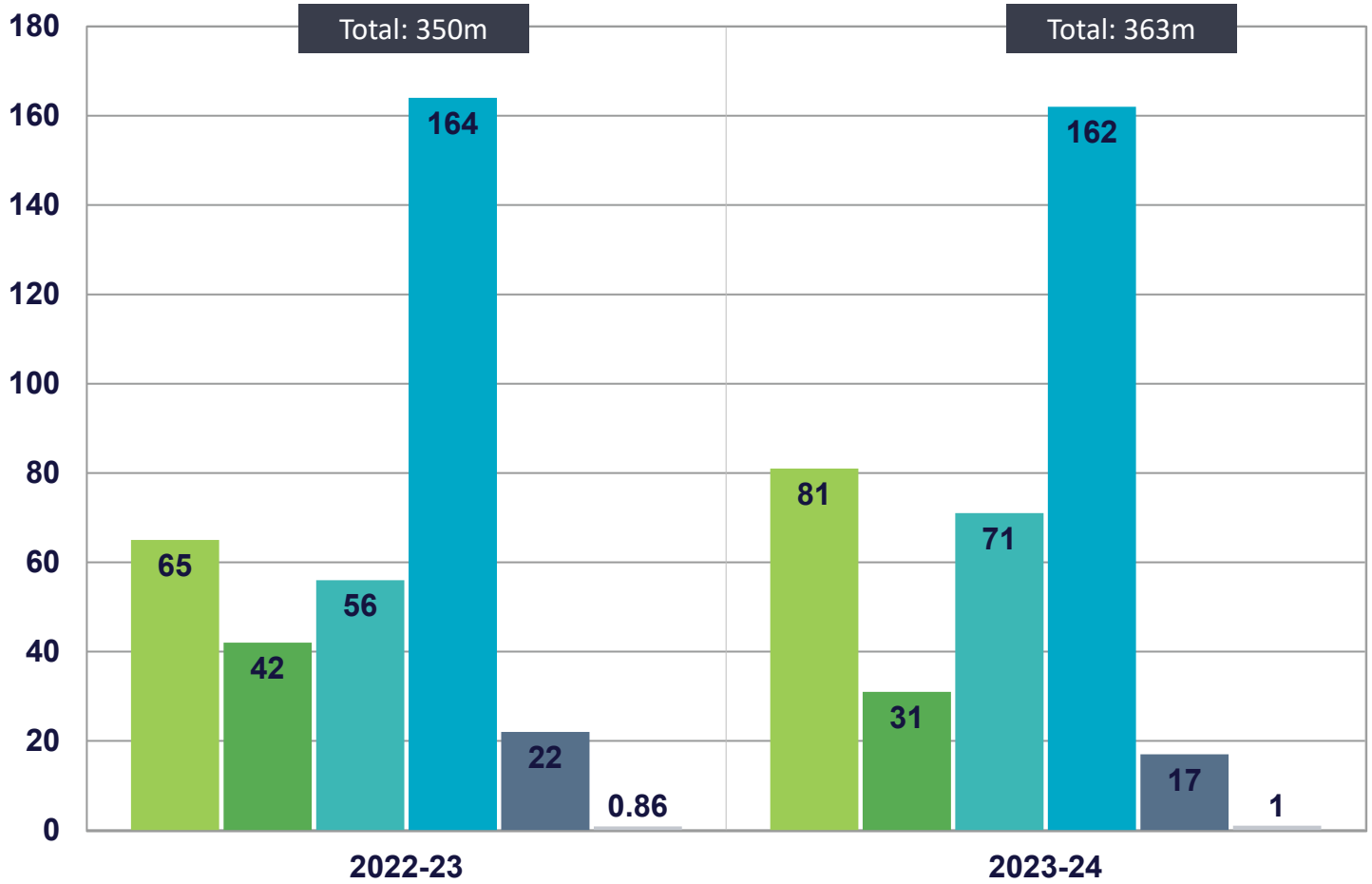
Non-Operating Revenue

Interest from Fixed Deposit Receipt (FDR)

Comparison of Account-wise Expenses

FY 2022-23 vs FY 2023-24

All Expenses in mBDT



01

Network Operations

02

Network Maintenance

03

Administrative

04

Depreciation Expense

05

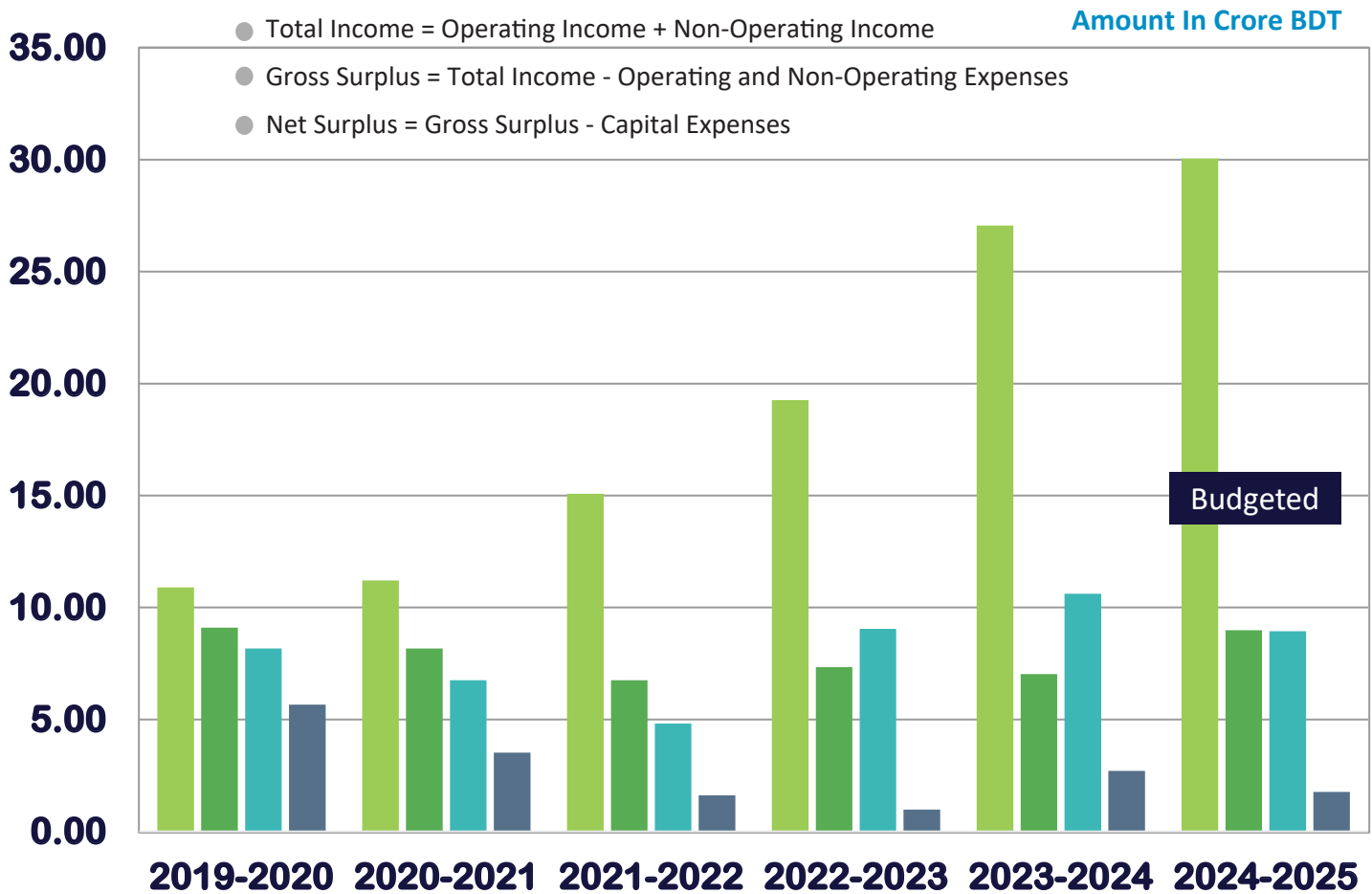
Project

06

Non-Operating

BdREN's Financial Growth

From FY 2019-20 to FY 2024-25



Operating Income
Grows steadily over the years from FY 2019-20 to 2024-25

Gross Surplus
Growth in Operating income overshoots the reduction in non-Operating Income in FY 2022-23 onwards due to alternate investment

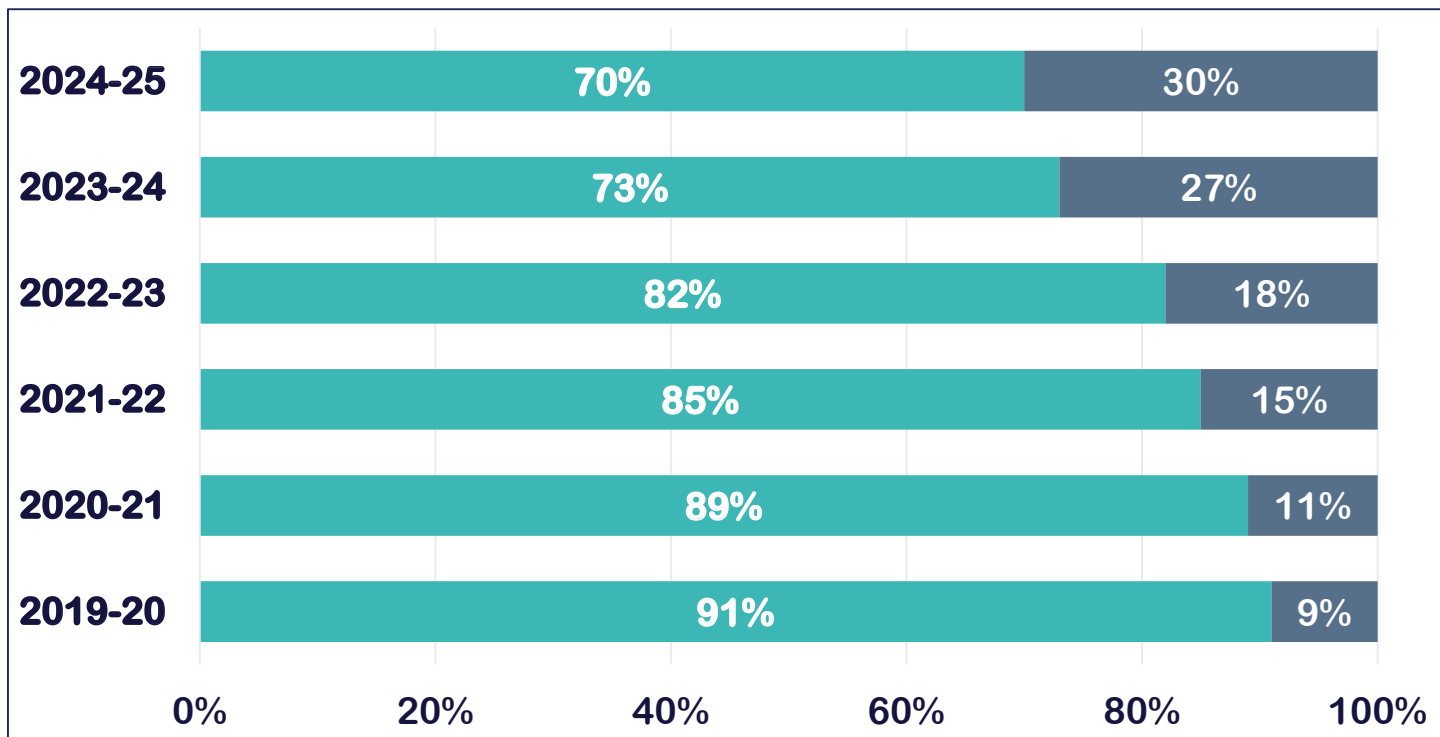
Non-Operating Income

- Reduces in FY 2020-21 and FY 2021-22 due to government's 6-9 policy
- Further reduces in FY 2023-24 due to alternate investment but supposed to increase as 6-9 barrier is withdrawn

Net Surplus
Depends on Gross Surplus and Capital Expenditure. Increased Capital Expenditure in FY 2022-23 onwards.

Distribution of Revenue earning from Public Universities and other Institutes

Percentage of Revenue shares [Public Universities vs Other Institutes]



Revenue from Public University

This Revenue includes the income generated from all the public universities in Bangladesh



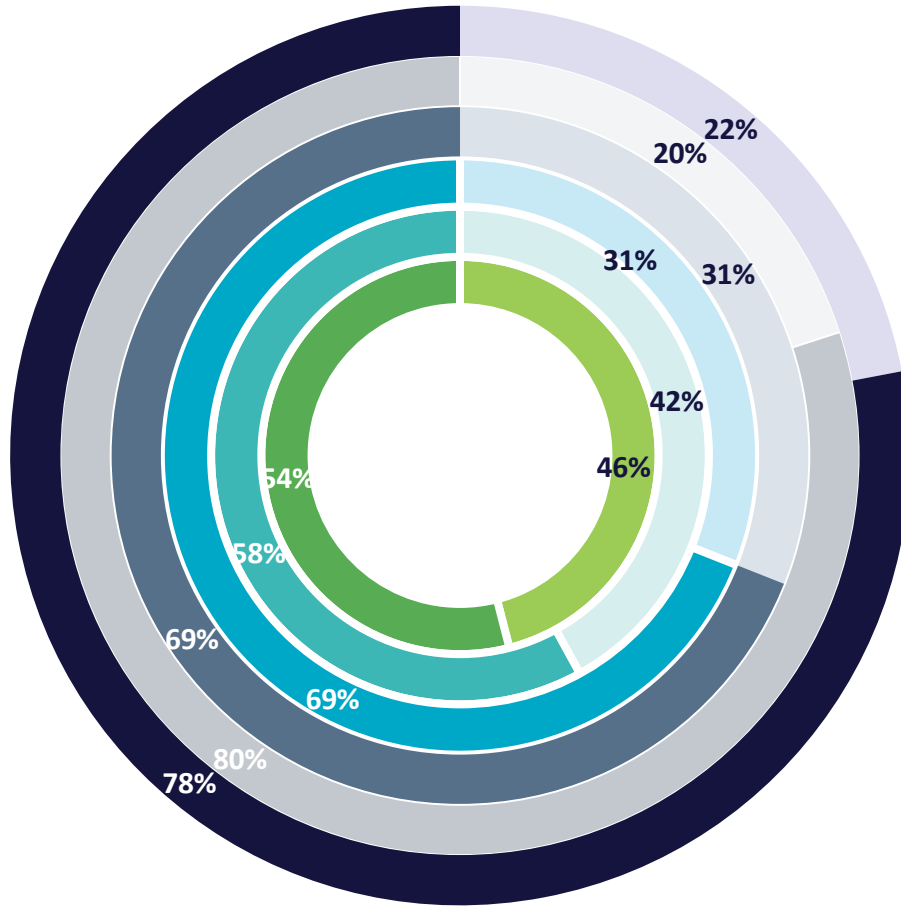
Revenue from other Institutes

This Revenue includes income generated from any institutes other than the public universities



The above Data vindicates the diminishing dependence on the revenues from Public Universities which is a good sign of attaining resilience.

Percentage Share of Operating and non-Operating Income

Over the years from FY 2019-20 to FY 2024-25



Legends:

Financial Year	 Operating	 non-Operating
2019-20	54%	46%
2020-21	58%	42%
2021-22	69%	31%
2022-23	69%	31%
2023-24	80%	20%
2024-25 (Budgeted)	78%	22%

**Notes: 2024-25 data is the Budgeted one



AUDIT REPORT

FY 2023-2024

**Bangladesh Research and Education Network
(BdREN) Trust**
Audit Report and Audited Financial Statements
For the year ended 30 June 2024

Khan Wahab Shafique Rahman & Co.

CHARTERED ACCOUNTANTS
SINCE 1968



A member of
mgiworldwide

A Top 20 ranked international network and association
of independent audit, tax, accounting and consulting firms

**Independent Auditor's Report
To the Board of Trustees
of
Bangladesh Research and Education Network (BdREN) Trust
Report on the Audit of the Financial Statements**

Opinion

We have audited the financial statements of Bangladesh Research and Education Network (BdREN) Trust ("The Trust") which comprise the statement of financial position as at June 30, 2024, and the statement of profit or loss and comprehensive income, statement of changes in trust fund and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view, in all material respects of the financial position of the Trust as at June 30, 2024, and of its financial performance its cash flows for the year then ended and comply with the requirement of Trust Act 1882, International Financial Reporting Standards (IFRS's), and other applicable laws and regulations.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Trust in accordance with the International Ethical Standards Board for Accountant's code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial statements in Jurisdictions, and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphases of Matter

The company has recorded expenses related to in-house software development as revenue expenditures rather than capitalizing them as intangible assets. The company now plans to capitalize these costs and recognize them as an intangible asset upon project completion, aligning with appropriate accounting principles. Our opinion is not modified in respect of the matter.



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 (IFRSS) and comply with the Trust Act, 1882 and other applicable laws and regulations for such internal control as management determines is necessary to enable the preparation of financial statements that free from material misstatement, whether due to fraud or error. In preparing the financial statements, management is responsible for assessing the Trust'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 intends to liquidate the Trust or to cease operations, or has no realistic alternative but to so.

Those charged with governance are responsible for overseeing the Trust's financial reporting process. Auditor's Responsibilities for the Audit of the Financial Statements

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are 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 our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs 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 ISAs, we exercise professional judgement and maintain professional skepticism throughout the audit. We 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 our 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.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management but not for the purpose expressing an opinion on the effectiveness of the trust's internal control.

- Evaluate the overall presentation, structure and content of the trust's financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

In accordance with the Trust Act 1882, we also report the following:

- a) we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit and made due verification thereof
- b) in our opinion, proper books of account as required by the law have been kept by the Trust so far as it appeared from our examination of those books; and
- c) the statement of financial position and statement of profit or loss and other comprehensive income dealt with by the report are in agreement with the books of accounts;

Date, Dhaka 05 NOV 2024

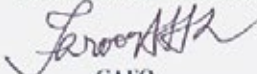

Khan Wahab Shafique Rahman & Co.
Chartered Accountants
Signed by: Md. Tanjilur Rahman FCA
Partner
Enrolment No: 1885
Firm Registration No.: 11970 E.P.-
DVC: 2411051885A8930857



BdREN Trust
Statement of Financial Position
As at June 30, 2024

Particulars	Notes	Amount in Taka	
		30.06.2024	30.06.2023
ASSETS:			
Non-Current Assets	3.00	1,385,328,633	1,488,926,581
Property, Plant & Equipment (Tangible)	3.01	1,251,659,792	1,042,380,181
Capital work in progress	3.02	-	312,571,312
Furniture & Fixtures	3.03	35,562,589	22,700,802
Intangible Assets	3.04	21,306,252	24,874,286
Long-Term-Advance	3.05	76,800,000	86,400,000
Current Assets	4.00	935,304,379	862,230,955
Cash and Cash Equivalents	4.01	13,258,361	21,241,209
Investment in FDR	4.02	690,000,000	660,000,000
Stationary	4.03	35,544	14,651
Advance, Deposit & Pre-payments	4.04	15,523,596	25,967,322
Loan to Employee	4.05	4,950,000	-
Advance for Tender Performance Security	4.06	1,276,691	-
Advance for Tender Security	4.07	450,000	-
Accounts Receivables	4.08	130,622,749	98,442,913
Advance Income Tax (AIT)	4.09	70,642,786	49,282,221
Interest Receivable	4.10	8,433,253	7,782,639
Suspense Account (Debit Balance)		111,400	-
Total Assets		2,320,633,012	2,351,157,536
LIABILITIES & TRUST FUND:			
Current Liabilities	5.00	110,503,701	79,924,708
Accounts Payable	5.01	51,076,187	38,886,724
Expenses Payable	5.02	7,421,223	1,848,317
Audit Fee Payable	5.03	75,000	75,000
VAT Payable	5.04	1,691,341	2,680,408
Withholding Tax Payable	5.05	12,583	191,853
Other Payables	5.06	25,555	-
Provision for Income Tax	5.07	32,061,018	34,570,955
DDA/DCI Project Fund	5.08	0	565,209
Unearned Revenue	5.09	16,004,227	4,227
Suspense Account	5.10	18,914	18,914
Advance Membership Fee	5.11	25,000	25,000
Fund for DWDM Training	5.12	626,845	34,037
Other Funds	6.00	1,465,808	1,024,064
Trust Fund	8.00	2,210,129,311	2,271,232,828
Capital Fund	8.01	896,700,000	896,700,000
Operational Fund	8.02	65,576,992	65,746,173
Donation and Grants	8.03	828,372,827	992,422,935
Accumulated Surplus	8.04	419,479,492	316,363,720
Total Fund & Liabilities		2,320,633,012	2,351,157,536

The annexed notes form an integral part of these financial statements


CAFO


Chief Executive Officer

 Vice-Chairperson
 Chairperson

Signed in terms of our annexed report of even date.

Dated, Dhaka 05 NOV 2024


Khan Wahab Shafique Rahman & Co.
Chartered Accountants
Signed By: Md. Tanjilur Rahman FCA
Partner
Chartered Accountants
Firm's Reg. No.: 11970 E.P.
DVC: 2411051885AS9308E



BdREN Trust
Statement of Profit or Loss and other Comprehensive Income
For the year ended June 30, 2024

Particulars	Notes	Amount in Taka	
		2023-2024	2022-2023
Operating Income	10.00	241,017,842	192,630,329
Annual Membership fee	10.01	5,651,436	4,870,000
Service Revenue	10.02	204,705,306	164,530,435
Other	10.03	30,661,101	23,229,894
Less: Operating Expenses	11.00	362,736,483	348,410,660
Network Operational Expense	11.01	81,325,354	64,560,527
Network Maintenance Expense	11.02	31,290,249	42,360,107
General & Administrative Expense	11.03	70,831,670	55,681,476
Depreciation and Amortization Expense	11.04	161,749,976	163,987,781
Project Expense	11.05	17,539,234	21,820,769
Profit/(Loss) from Operations		(121,718,641)	(155,780,331)
Add: Non-Operating Income	12.00	61,482,186	73,355,425
Income from Bank Interest	12.01	61,254,423	73,135,853
Discount receipts on payment	12.02	-	-
BeI.ISAC Project Fund Receipt	12.03	21,174	-
Others receipts	12.04	206,589	219,572
Less: Non-Operating Expense	13.00	907,685	856,366
Financial Expense	13.01	880,000	824,500
Bank Charges	13.02	27,685	31,866
Bad Debts		-	-
Profit/(Loss) before Tax		(61,144,140)	(83,281,272)
Less: Income Tax Expense		7,800,729	9,775,863
Profit/(Loss) after Tax		(68,944,869)	(93,057,135)

The annexed notes form an integral part of these financial statements


CAFO


Chief Executive Officer


Vice-Chairperson


Chairperson

Signed in terms of our annexed report of even date.

Dated, Dhaka 05 NOV 2024




Khan Wahab Shafique Rahman & Co.
Chartered Accountants
Signed By: Md. Tanjilur Rahman FCA
Partner

Chartered Accountants

Firm's Reg. No.: 11970 E.P.

DVC: 2411051885A893085

BdREN Trust
Statement of Changes in Trust Fund
For the year ended June 30, 2024

	Amount in Taka				
Particulars	Capital Fund	Operational Fund	Donation & Grants	Accumulated Surplus	Total
Balance as at 01 July 2023	896,700,000	65,746,174	992,422,935	316,363,719	2,271,232,828
Add: Adjustment	-	-169,181	(2,300,132)	10,310,666	7,841,553
Add: Net profit for the year	-	-	-	(68,944,869)	(68,944,869)
Add/(Less): Depreciation & Amortization	-	-	(161,749,976)	161,749,976	-
Balance as at 30 June 2024	896,700,000	65,576,992	828,372,827	419,479,492	2,210,129,312
Balance as at 30 June 2023	896,700,000	65,746,173	992,422,935	316,363,720	2,271,232,828


CAFO


Chief Executive Officer

Vice-Chairperson


Chairperson



BdREN Trust
Statement of Cash Flows
For the year ended June 30, 2024

Particulars	Amount in Taka	
	2023-2024	2022-2023
Cash flows from operating activities		
Net Income	(68,944,869)	(93,057,135)
Depreciation & Amortization	152,149,976	154,387,781
Increased Inventories	(20,893)	12,644
Amortization of Long-term Advance	9,600,000	9,600,000
Decreased Advance, Deposite & Pre-payments	10,443,727	(3,519,823)
Loan to Employee	(4,950,000)	-
Advance for Tender Performance Security	(1,276,691)	-
Advance for Tender Security	(450,000)	-
Increased Accounts Receivables	(32,179,836)	(64,867,003)
Increased FDR	(30,000,000)	430,000,000
Advance Income Tax Paid	(21,360,565)	(14,425,438)
Increase in Interest Receivable	(1,150,614)	(7,282,639)
Increase Suspense Account (Dr.)	(111,400)	-
Increase Accounts Payable	12,189,463	17,016,240
Increase Expense Payable	5,572,906	(262,387)
Decrease Audit Fee Payable	-	(8,056)
Increase Suspense Account (Cr.)	-	(9,613)
Decrease VAT Payable	(989,067)	2,486,368
Decrease Withholding Tax Payable	(179,270)	191,853
Increase Other Payable	25,555	-
Decrease Provision for Income Tax	(2,509,937)	20,086,529
Decrease Asi@Connect Project Fund	-	(941,831)
Decrease DLuDCf Project Fund	(565,209)	510,940
Increase in Unearned Rev.	16,000,000	-
Increased other Funds	441,744	116,576
Decrease in Advance Membership fee	-	(2,000)
Decrease in Accumulated Depreciation	(8,282,299)	-
Increase Fund for DWDM Training	592,808	34,037
Net cash provided by operating activities (A)	34,045,529	450,067,044
Cash flows from investing activities		
Sale/Disposal of Fixed Asset	10,769,431	-
Purchase of Non-Current Assets	(373,210,472)	(105,455,006)
Net cash used in investing activities (B)	(362,441,041)	(105,455,006)
Cash flows from financing activities		
Changes in Operational Fund	(169,181)	3,540,097
Change in Accumulated Surplus	172,060,641	(9,768,781)
Donations and Grants	(164,050,108)	-
Payment of Long Term Debt	-	(9,337,188)
Net cash used in financing activities (C)	7,841,352	(15,565,872)
Net Cash flows (Provided/Used) from all activities [A+B+C]	(320,554,160)	329,046,166
Cash and cash equivalents at the begining of the year	333,812,522	4,766,356
Cash and cash equivalents at the ending of the year	13,258,361	333,812,522


CAFO


Chief Executive Officer


Vice-Chairperson


Chairperson

