

**AVAILABILITY OF EDUCATIONAL RESOURCES IN PRIMARY SCHOOLS IN
RURAL AREAS OF ASSAM**

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Abstract:

Educational resources form the backbone of effective primary education, particularly in rural regions where socio-economic and infrastructural constraints are prominent. Assam, a northeastern state of India, presents unique educational challenges due to its diverse geography, dispersed settlements, and recurring natural disasters. This paper examines the availability of educational resources in primary schools located in rural areas of Assam, focusing on physical infrastructure, human resources, teaching-learning materials, and digital facilities. Using secondary data from government reports, academic studies, and policy documents, the study identifies significant gaps in basic amenities such as drinking water, sanitation, classrooms, and teacher availability. The findings reveal that a considerable number of rural primary schools lack adequate infrastructure and suffer from acute teacher shortages, adversely affecting learning outcomes and student retention. Although recent initiatives under Samagra Shiksha and digital education programs have attempted to address these issues, implementation remains uneven. The paper concludes with policy recommendations aimed at strengthening rural school infrastructure, improving teacher recruitment and retention, enhancing digital access, and promoting community participation. Ensuring equitable access to educational resources is essential for achieving inclusive and quality primary education in rural Assam.

Keywords: Educational resources, Rural education, Primary schools, Assam, Infrastructure, Teacher availability

1. Introduction:

Primary education is universally recognized as a fundamental human right and a critical component of sustainable development. In India, initiatives such as the Right to Education (RTE) Act, 2009, and the Samagra Shiksha Abhiyan aim to ensure free, compulsory, and quality education for all children aged 6–14 years. However, the realization of these objectives remains uneven across regions, particularly in rural and remote areas.

Assam's rural landscape is characterized by scattered habitations, flood-prone river basins, and char (river island) areas that remain geographically isolated for much of the year. These conditions pose serious challenges to the provision and maintenance of educational resources in primary

schools. Educational resources—defined broadly as physical infrastructure, qualified teachers, instructional materials, and technological support—are crucial for effective teaching-learning processes.

Despite increased enrollment rates, rural primary schools in Assam continue to struggle with shortages of classrooms, sanitation facilities, drinking water, and trained teachers. These deficiencies not only affect learning quality but also contribute to absenteeism and dropout rates, particularly among girls and children from marginalized communities.

This paper seeks to critically examine the availability of educational resources in rural primary schools in Assam and to explore the implications of resource scarcity on educational outcomes.

2. Review of Literature:

Previous studies on rural education in India highlight persistent disparities between rural and urban schools in terms of infrastructure and staffing. Research indicates that rural schools often operate with inadequate facilities, multigrade classrooms, and insufficient teaching staff.

Studies focused on Assam reveal that rural schools face compounded challenges due to geographical isolation and socio-economic vulnerabilities. Several scholars have noted that lack of basic amenities such as toilets and safe drinking water negatively impacts student attendance and health. Teacher shortages, particularly in remote areas, further undermine instructional quality.

Patnaik (2013) reviewed accessibility assessment of urban infrastructure for planning and managing urban growth in North Lakhimpur Town, Assam, India. The study underscores the examining theoretical frameworks and methods for evaluating accessibility to urban infrastructure, such as ideas from transportation engineering, urban planning, and geographic information systems (GIS), may be included in the review. It may also go over earlier studies on the creation and administration of urban infrastructure in Indian cities, with a particular focus on Assam and other areas with comparable fast urbanization and infrastructure difficulties.

Gogoi and Khanikor (2016) examined educational facilities in the District Institute of Education and Training (DIET) in Assam. The review covered the importance of high-quality facilities for teacher effectiveness and readiness, offering insights into the learning environments in DIETs and supporting the need for improved educational infrastructure.

Claudiu (2019) investigates the effective management of educational resources in primary education. The study aims to investigate the ways to streamline the process of instruction through the use of some didactic means and materials in accordance with the age, individual particularities and curriculum. The findings of the study exposed that, the majority of the teaching staff included in the study believed that the use of teaching materials and means useful in all stages of the lesson. It is important to use appropriate material for each sequence of the lesson to keep the student's attention focused throughout the activity.

Majhi & Mallick (2019) focus on education infrastructure and enrolment in elementary education in Odisha. The objective of study were to a physical infrastructure index at school level across 30 districts of Odisha and the role it plays in improving the enrolment. It is found that the infrastructure contributes significantly to the enrolment at elementary education level. The enrolment is increasing over time. The availabilities of basic amenities is encouraging children

especially girls to come to the schools. It is also observed that the district like Balasore, Boudh, Keonjhar and Kalahandhi are improving in terms of their infrastructure over time.

Islam M. & Rahman S. (2019) investigate the quality of primary education management system of Bangladesh: A case study on Jhenaidaj Upozila Education Office.” The objectives of study were to find the way to cope with student with new education system and to find the quality of primary education management system in Bangladesh. This study revealed that the local authority doesn’t too much effort to standardize the education quality and most of the teacher said that their schools have sufficient resource but their all are the old and non technical. On the other hand the students are frequently felt bad to come; it’s a great problem, if the literature rate increase but the dropping rate also increased more.

Delimitations of the study:

1. The study will delimit to two districts of Assam namely- Udalguri District and Bajali District.
2. The study will confined only provincialized lower primary schools (class I-V).
3. The independent variable of the study school resources is delimited to materials (textbook, teaching aids, digital tools), infrastructure (classroom condition, electricity, and sanitation), human resources (teacher’s qualification, students-teacher ratio, staff availability).
4. The study will confined only rural areas of Assam.

3. Methodology:

The study adopts a descriptive and analytical research design based on Primary and secondary data. Data sources include:

-Field Survey data

-Government reports (Samagra Shiksha, Assam Education Department)

-Academic journal articles

-Policy documents and educational surveys

-Newspaper reports and NGO publications

The collected data were analyzed thematically under four broad categories of educational resources:

- Physical infrastructure
- Instructional materials
- Human resources

4. Discussion and Result:

4.1: Infrastructure in Rural Primary Schools:

Infrastructure forms the foundation of an effective learning environment. In rural primary schools, the availability of adequate classrooms, seating arrangements, sanitation facilities, drinking water, electricity, and playgrounds directly influences both teaching and student engagement. This section presents the status of physical infrastructure in the surveyed schools, highlighting areas where facilities are sufficient as well as aspects that require improvement. The data are organized to provide a clear overview of how infrastructural resources support—or limit—the overall quality of education in rural Assam. This section presents the status of physical infrastructure in the surveyed schools, highlighting areas where facilities are sufficient as well as aspects that require improvement.

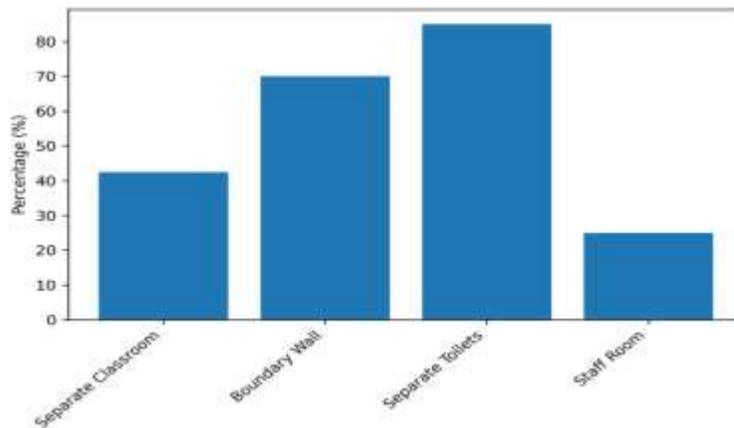
Table: 4.1.1

Availability of Infrastructure Facilities in Rural Primary Schools of Assam:

Sl. No.	Infrastructure Facilities	Number of Schools	Percentage (%)
1.	Separate classroom for each grade	17	42.5
2.	Boundary wall / Fencing	28	70.0
3.	Separate toilet for boys and girls	34	85.0
4.	Staff room for teachers	10	25.0

Source: Field Survey Data

Figure1: Infrastructure Facilities



Interpretation:

- **Separate Classrooms for Each Grade:** Only 42.5% of the schools have separate classrooms for each grade, while the majority operates with shared classroom spaces. This

indicates space constraints, which may limit grade-wise instructional effectiveness and classroom management.

- **Boundary Wall/Fencing:** A majority of schools (70%) are equipped with boundary walls or fencing. This reflects reasonable attention to student safety and school security; however, the absence of such facilities in 30% of schools remains a concern.
- **Separate Toilets for Boys and Girls:** A high proportion of schools (85%) have separate toilets for boys and girls, reflecting compliance with basic sanitation norms.

The findings indicate that sanitation facilities are generally adequate across schools, reflecting compliance with basic hygiene standards. However, the limited availability of staff rooms highlights a shortfall in facilities for teachers, which may affect their comfort, collaboration, and professional efficiency.

Table: 4.1.2

Availability of Classrooms and Seating Arrangements in Rural Primary School:

Interpretation: More than half of the classrooms are in poor condition and require major repairs,

Classroom Condition	Frequency	Percentage
Well maintained	1	2.5
Requires minor repairs	18	45.0
Requires major repairs	21	52.5
Total	40	100.0

indicating serious infrastructural neglect. Such physical environments may negatively affect students' comfort, safety, and academic engagement

Table: 4.1.3

Furniture for Student:

Desk and Chair Availability	Frequency	Percentage
For every student	28	70.0
Shared	8	20.0
Inadequate	4	10.0
Total	40	100.0

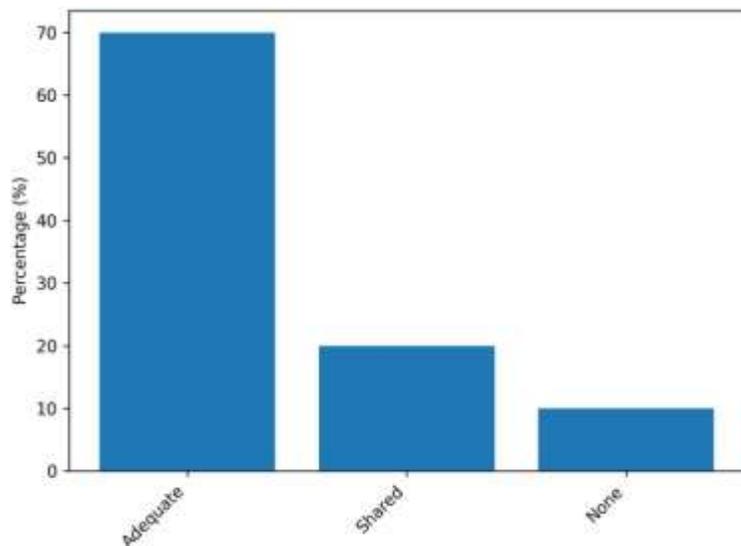
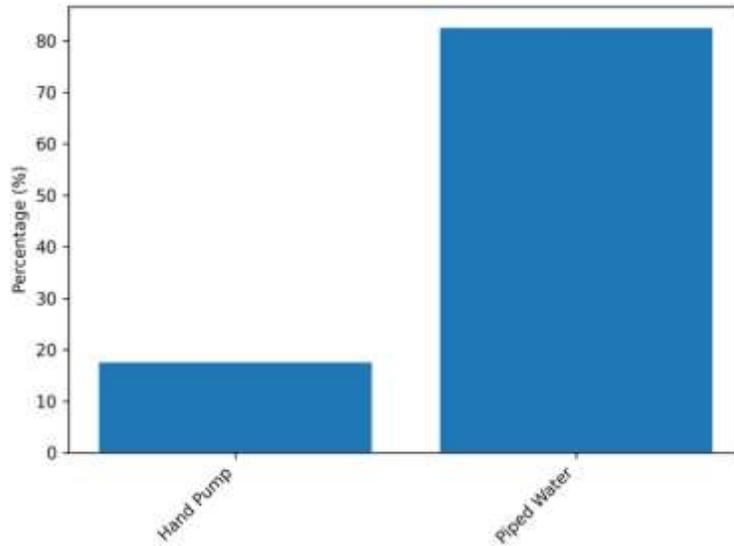


Table: 4.1.4
Status of Sanitation, Drinking Water facilities:

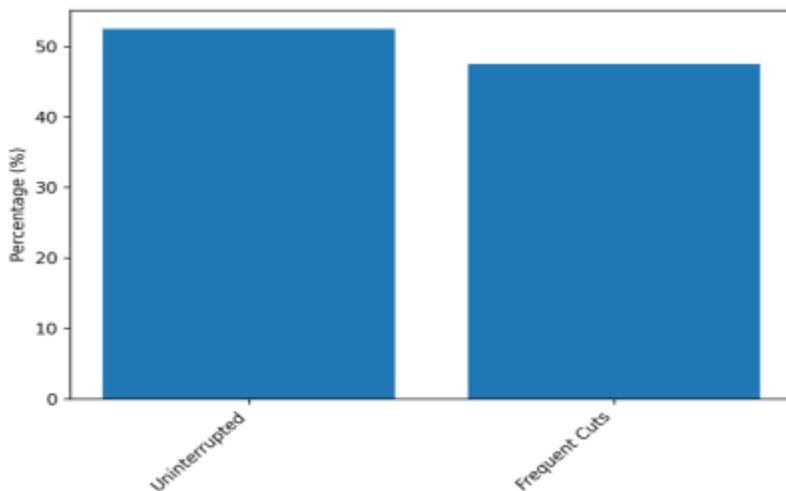
Type of Drinking Water	Frequency	Percentage
Hand pump	7	17.5
Piped water supply	33	82.5
Well	0	0.0
No facility	0	0.0
Total	40	100.0



Interpretation: The predominance of piped water supply indicates satisfactory access to safe drinking water, supporting students’ health and well-being

Table: 4.1.5
Electricity Access:

Electricity Supply	Frequency	Percentage
Uninterrupted	21	52.5
Frequent interruptions	19	47.5
No connection	0	0.0
Total	40	100.0

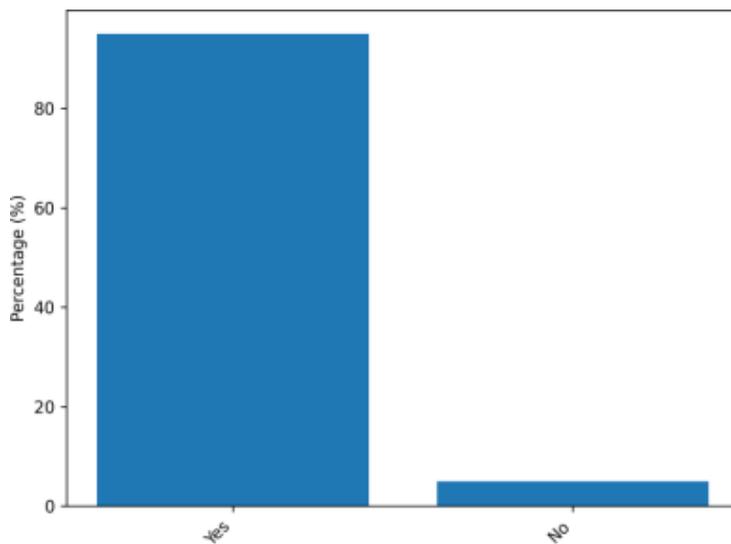


Interpretation: The predominance of piped water supply indicates satisfactory access to safe drinking water, supporting students’ health and well-being.

.Table 4.1.5

Facilities for Children with Disabilities:

Facility Availability	Frequency	Percentage
Yes	38	95.0
No	2	5.0
Total	40	100.0



Interpretation: The availability of disability-friendly facilities in most schools reflects progress toward inclusive education, although full coverage remains unrealized.

4.2: Instructional Materials in Rural Primary Schools:

Instructional materials, including textbooks, teaching aids, and library resources, are essential for facilitating effective teaching and meaningful learning experiences. In rural primary schools, the adequacy and accessibility of these materials can significantly influence students’ comprehension, engagement, and overall academic performance. This section presents the findings on the availability of instructional materials in the surveyed schools, highlighting areas where resources are sufficient and identifying gaps that may hinder quality education.

Table 4.2:1

Availability of Learning Resources:

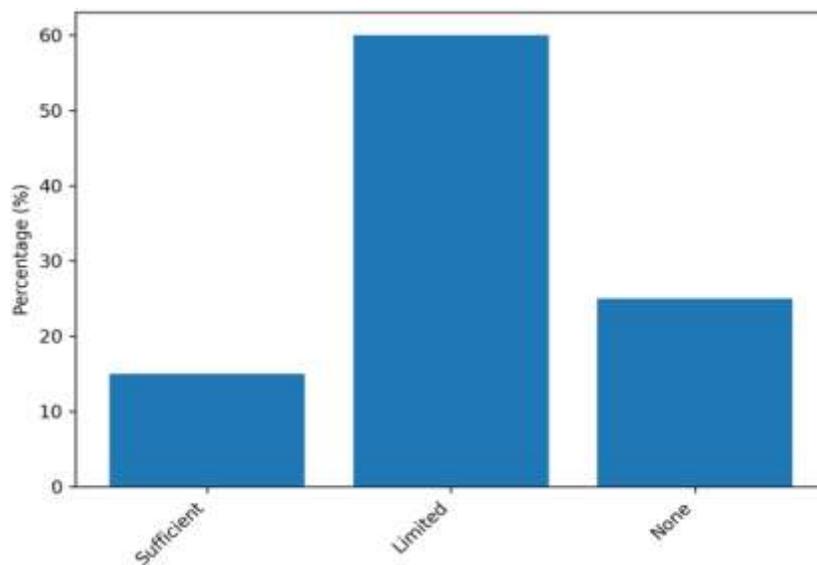
Sl. No.	Textbook	Frequency(N)	Percentage (%)
1	Yes, all students have	40	100.0
2	Some students lack textbook	00	00
3	No, many students do not have textbook	00	00
	Total	40	100.0

Textbooks: All schools (100%) reported that every student has access to textbooks, indicating an efficient distribution system.

Table: 4.2:1:

Library Facilities:

Library Status	Frequency	Percentage
Sufficient books	6	15.0
Limited books	24	60.0
No library	10	25.0
Total	40	100.0

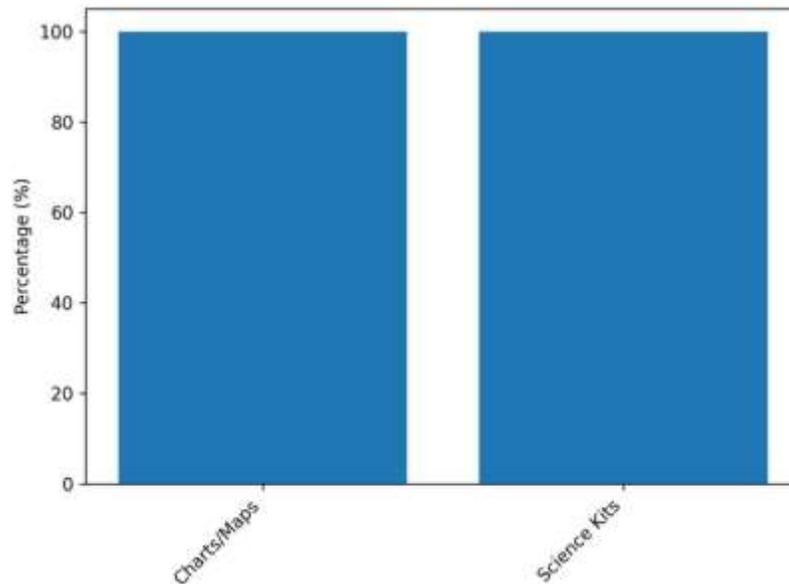


Interpretation: Although libraries exist in many schools, the predominance of limited collections and absence in 25% of schools restricts opportunities for supplementary learning and reading habit development.

Table: 4.2:2

Teaching–Learning Materials:

Teaching–Learning Materials	Number	Percentage
Charts and maps	40	100.0
Science kits	40	100.0
Mathematical kits	0	0.0
Audio-visual aids	0	0.0
None	0	0.0



Interpretation: While charts, maps, and science kits are universally available, the complete absence of mathematical kits and audio-visual aids indicates limited adoption of activity-based and technology-supported pedagogy.

Table 4.2:3

Availability ICT and Digital Resources (Internet Access):

Connectivity	Frequency	Percentage
Reliable	4	10.0
Poor	16	40.0
No access	20	50.0
Total	40	100.0

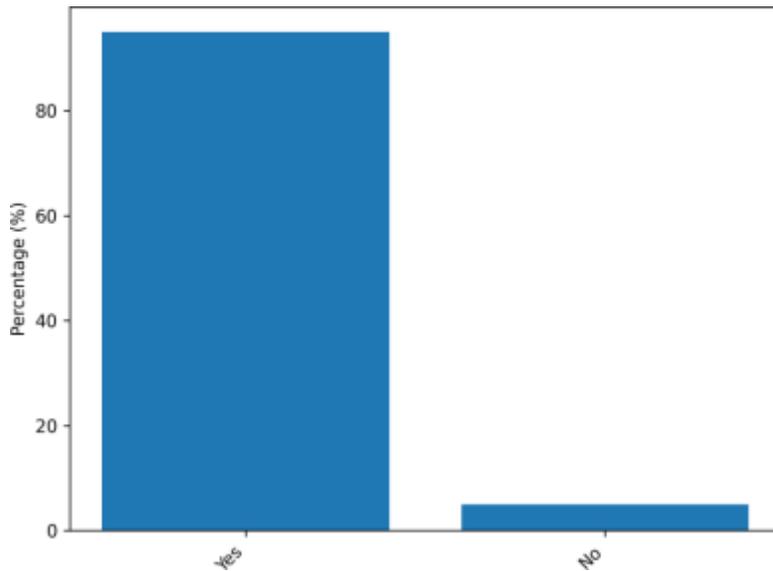


Table: 4.2:4

Availability Computers:

Availability	Frequency	Percentage
Sufficient	6	15.0
Limited	34	85.0
Total	40	100.0

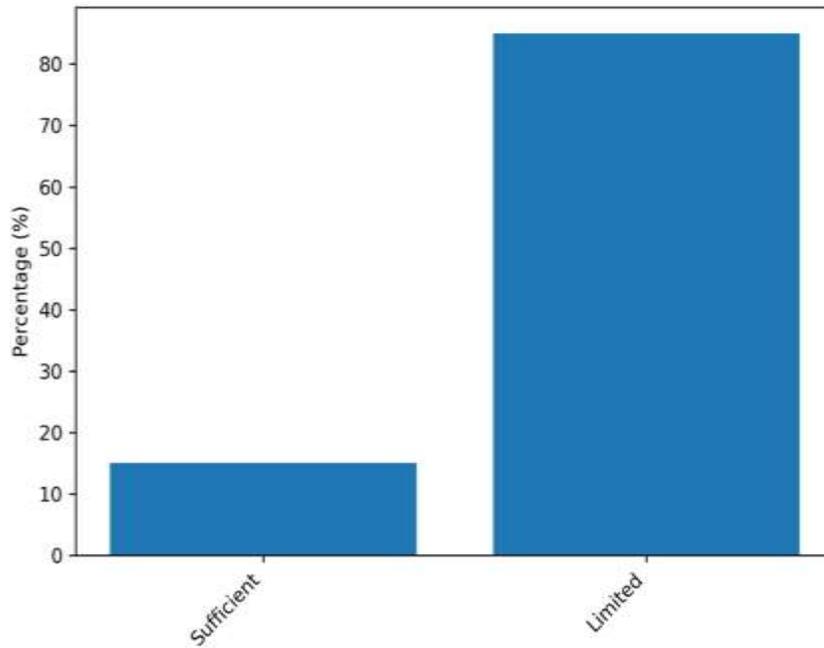
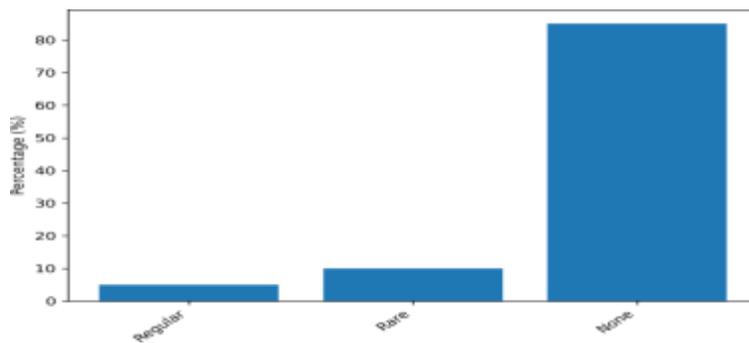


Table: 4.2:4

Digital Learning Tools:

Usage	Frequency	Percentage
Regularly used	2	5.0
Rarely used	4	10.0
Not used	34	85.0
Total	40	100.0



Interpretation: Despite widespread access to electricity, limited internet connectivity, inadequate computer availability, and low usage of digital tools indicate minimal integration of ICT in teaching–learning processes.

4.3. Human Resources in Rural Primary Schools:

Human resources, particularly the presence of trained and qualified teachers, play a pivotal role in ensuring quality education. Apart from teacher availability, factors such as qualifications, in-service training, and the presence of support staff are critical for the effective functioning of primary schools. This section analyzes the human resource profile of the surveyed rural schools, providing insights into the adequacy and preparedness of teaching personnel and other staff members, and identifying areas that may require policy attention or intervention.

Table 4.3.1:
Teacher Availability and Qualifications:

Ratio	Frequency	Percentage
Below 1:30	31	77.5
Between 1:30–1:50	9	22.5
Above 1:50	0	0.0
Total	40	100.0

A favorable teacher–student ratio in most schools supports individualized attention and effective classroom management.

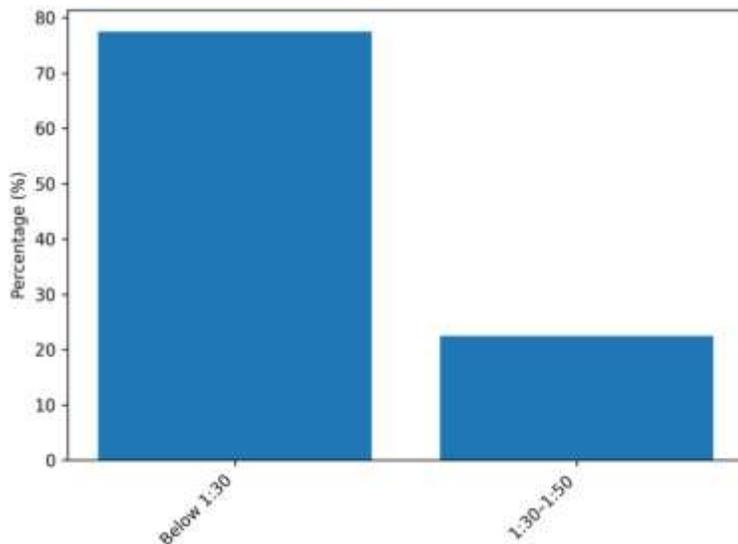
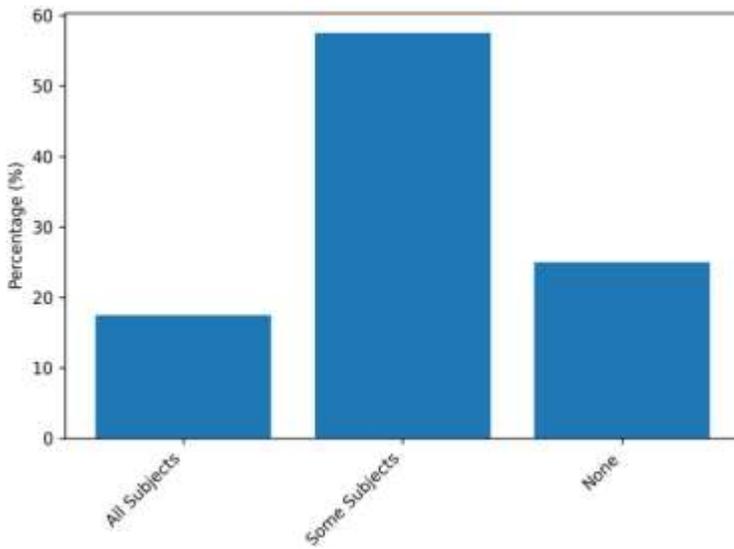


Table: 4.3.2:

Subject-Specific Teachers:

Availability	Frequency	Percentage
For all subjects	7	17.5
Not for all subjects	23	57.5
Teachers handle multiple subjects	10	25.0
Total	40	100.0



This indicates a shortage of subject specialists, potentially affecting instructional depth.

Table 4.3.3:

Trained Teachers for Special Needs:

Availability	Frequency	Percentage
Yes	0	0.0
No	40	100.0
Total	40	100.0

The complete absence of trained special educators highlights a critical human resource gap.

The findings provide a systematic understanding of the availability of educational resources in rural primary schools of Assam, highlighting both adequacy in basic facilities and deficiencies in critical areas. These results form the basis for interpreting how resource availability influences

teaching–learning processes and are discussed in relation to NEP 2020 and the Gunotsav programme to contextualize policy relevance.

5. Summary of Findings:

The study reveals that rural primary schools in Assam largely meet minimum infrastructural requirements such as textbook availability, sanitation facilities, drinking water supply, and favorable teacher–student ratios. However, deficiencies persist in classroom conditions, library facilities, availability of subject-specific teachers, trained special educators, and digital infrastructure. These gaps limit instructional quality, inclusivity, and opportunities for enriched learning. Overall, while basic schooling functions are supported, the existing resource base is inadequate for delivering holistic, inclusive, and technology-enabled education.

6. Discussion in the Light of NEP 2020 and Gunotsav:

The findings align partially with NEP 2020 and Gunotsav norms, particularly in ensuring minimum infrastructural provisions necessary for foundational learning. However, NEP 2020's emphasis on experiential learning, ICT integration, and inclusive education is not adequately reflected in the sampled schools. Poor classroom conditions, limited libraries, lack of teaching–learning aids, weak digital access, shortage of subject-specific teachers, and absence of trained special educators indicate a gap between policy intent and ground-level implementation. While Gunotsav effectively monitors basic compliance, greater emphasis is required on qualitative and pedagogical dimensions of educational resources.

7. Educational Implications:

The findings of Objective 1 have important implications for educational planning and policy implementation in rural Assam. While the availability of basic resources ensures the functioning of primary schools, the qualitative inadequacy of infrastructure, learning materials, and human resources limits the realization of quality education. There is a need to prioritize the renovation of classrooms, establishment of functional libraries, provision of mathematical kits and audio-visual aids, and strengthening of ICT infrastructure to support digital learning initiatives. Additionally, the appointment of subject-specific teachers and trained special educators is essential to enhance instructional quality and ensure inclusive education. Effective implementation of Assam SCERT and Gunotsav guidelines, supported by targeted resource allocation, can significantly improve the learning environment in rural primary schools.

8. Alignment with Recommendations:

Key Finding	Corresponding Recommendation
Poor classroom conditions	Prioritize repair, renovation, and maintenance of classrooms through targeted grants
Limited or absent libraries	Establish functional school libraries with age-appropriate reading materials
Lack of teaching–learning aids	Provide mathematical kits, AV aids, and activity-based learning materials
Weak digital infrastructure	Strengthen ICT facilities, internet connectivity, and access to computers
Shortage of subject-specific teachers	Recruit and deploy subject-specialist teachers at the primary level
Absence of trained special educators	Appoint trained special educators to support inclusive education
Focus on minimum compliance	Shift Gunotsav monitoring toward qualitative and pedagogical indicators

9. Conclusion:

The study highlights that despite policy efforts, rural primary schools in Assam continue to face serious shortages of educational resources. Bridging these gaps is essential for ensuring equitable access to quality primary education. Focused interventions tailored to local contexts can significantly improve learning environments and outcomes in rural Assam.

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