

Research Article

From Information Access to Community Capacity: Mbale's Public Library Contribution to SDGs 4 and 11 in Eastern Uganda

Ayubu Kisubi Islamic¹ , Elizabeth Nalunkuma^{2, *} 

¹Library and Information Science Department, Islamic University in Uganda (IUIU), Mbale, Uganda

²Management Department, Uganda Institute of Information and Communications Technology (UICT), Kampala Uganda

Corresponding authors: elizabeth.nalunkuma@uict.ac.ug (Elizabeth Nalunkuma)

Abstract

Public libraries can advance sustainable development by expanding equitable access to information, learning opportunities and inclusive community spaces. However, local evidence of their contributions to Sustainable Development Goal (SDG) 4 on quality education and SDG 11 on sustainable cities and communities remains limited in Uganda. This study examined the services through which Mbale Public Library contributes to these goals and assessed users' and staff members' perceptions of their effectiveness. A convergent mixed-method case-study design combined questionnaires administered to library users, structured interviews with three staff members and analysis of institutional activity records. Of 98 questionnaires distributed, 39 valid responses were returned (39.8%). Survey responses were summarized using frequencies and percentages, while interview and documentary evidence was analyzed thematically and triangulated with the survey findings. Among respondents, 97.4% agreed or strongly agreed that the library disseminated information, facilitated research and provided literacy materials. Similarly, 92.3% perceived that it bridged information-access gaps, and all 39 respondents associated information dissemination with promoting research and development. The library's August 2022 records documented 3,660 computer users, 3,320 Wi-Fi users and 20 computer-training participants, alongside substantial use of print resources. Evidence for the library's contribution to SDG 11 was less consistent: 74.4% endorsed knowledge sharing through community spaces, and 71.8% recognized local discussions on SDGs 4 and 11. These results indicate strong perceived educational and information-access contributions, with a less visible civic-participation role. As the evidence measures service activity and perceptions rather than long-term outcomes, it cannot establish causal SDG impact. Strengthening physical and digital infrastructure, partnerships, inclusive community programming and outcome monitoring could make the library's contributions more sustainable and demonstrable.

Keywords

Public Libraries, Sustainable Development Goals, SDG 4, SDG 11, Digital Inclusion, Community Development, Uganda, Mbale

*Correspondence: Elizabeth Nalunkuma (elizabeth.nalunkuma@uict.ac.ug)

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1. Introduction

The United Nations 2030 Agenda frames access to knowledge, learning opportunities and inclusive public institutions as enabling conditions for sustainable development [5, 10]. Although libraries are not named in every Sustainable Development Goal (SDG), their core functions - organizing information, widening access, supporting learning and providing shared civic space - intersect with multiple targets. IFLA has therefore argued that libraries should be understood not only as cultural institutions but also as development partners. Recent international research similarly shows that libraries often contribute to SDG-related outcomes even when the goals are not formally embedded in strategic plans [1, 2].

This role is especially consequential in settings where unequal access to digital technologies, learning resources and safe public space constrains participation in education and urban life. Across African countries, public libraries have long been viewed by stakeholders as potential agents of development and innovation, but their capacity is shaped by funding, infrastructure, professional skills and political recognition [4]. In Uganda, public and community libraries have increasingly become sites for public internet access, digital-skills training and locally responsive learning programmes [7, 9].

Mbale City, a regional centre in eastern Uganda, provides a useful case for examining these claims at local level. The source study reports that Mbale Public Library has experienced significant infrastructural constraints, including the loss of its former central building, while continuing to provide services through institutional partnerships and available facilities. At the same time, its activity records document intensive use of computers, Wi-Fi, print resources and skills programmes. This combination of institutional precarity and continued service makes Mbale a revealing case of how public libraries can function as development infrastructure under resource constraints.

The study addresses two questions: (1) Which services provided by Mbale Public Library contribute to SDG 4 (Quality Education) and SDG 11 (Sustainable Cities and Communities)? and (2) How do users and staff perceive the effectiveness of these services? By connecting local evidence to current library-and-development scholarship, the article contributes an African case study to a literature that still contains relatively limited city-level evidence from Uganda.

2. Literature Review

Scholarship on libraries and sustainable development has expanded substantially since adoption of the 2030 Agenda. Koscijew [6] conceptualizes public libraries as development actors because information access, literacy, participation and public space cut across the SDGs. A broader review by Mathiasson and Jochumsen [8] shows that sustainability research in librarianship has moved beyond environmental concerns toward social, economic, cultural and holistic understandings.

This shift is important for public libraries in low- and middle-income countries, where sustainability is often experienced through questions of educational opportunity, digital inclusion, livelihoods and civic participation.

Empirical evidence also suggests a gap between what libraries do and how explicitly they frame that work through the SDGs. Connaway et al. [1], in a global survey of more than 1,700 library staff, found substantial SDG-related activity across library types, but limited incorporation of the goals into strategic planning. This distinction matters for impact and advocacy: routine services may support sustainable development, yet their contribution can remain politically invisible if libraries do not articulate outcomes, collect evidence and align services with development targets. Devi et al. [2] likewise emphasizes IFLA's role in mobilizing the profession through advocacy tools, SDG stories and professional programmes.

Research on information literacy in Nigerian public libraries also links library services with progress toward sustainable development through improved information capabilities [12]. For SDG 4, public libraries can complement formal education through literacy resources, reference support, internet access, digital and information literacy, and lifelong learning. These functions align particularly with Target 4.4 on relevant skills and Target 4.6 on literacy. In Uganda, library and information services contribute to national development through access to information and capabilities that support social and economic transformation. Practice-based evidence also shows how public and community libraries can deliver digital and mobile literacy training, reinforcing the library's role as a community learning platform.

For SDG 11, the relationship is less direct but equally significant. Public libraries can operate as inclusive social infrastructure: shared places where residents access information, meet others, preserve local knowledge and participate in community life. Their contribution is therefore relevant to participatory urbanization (Target 11.3), cultural heritage (Target 11.4) and access to inclusive public space (Target 11.7). Studies of public libraries in African contexts stress that this potential depends on whether communities and decision-makers recognize libraries as active civic institutions rather than as passive book repositories [4, 11, 13, 14].

The literature therefore suggests an analytical distinction between service outputs and development outcomes. Counts of visits, internet sessions or training participants demonstrate reach, while stronger SDG claims require evidence that services improve skills, access, participation or capability. The present study uses this distinction to interpret Mbale Public Library's service profile and user perceptions without assuming that service provision alone proves long-term SDG impact.

3. Methodology

A convergent mixed-method case-study design was used to

examine Mbale Public Library's contribution to SDGs 4 and 11. The study targeted 98 library users for the questionnaire survey, while three library staff members participated in structured interviews. Of the 98 questionnaires distributed to library users, 39 completed questionnaires were returned and considered suitable for analysis, representing a response rate of 39.8%. Accordingly, the quantitative findings presented in this study are based on 39 valid questionnaire responses ($n = 39$). Documentary evidence included library activity statistics, institutional materials and relevant policy and professional documents.

The questionnaire measured user perceptions of seven service areas and five contribution/effectiveness statements using a five-point Likert scale from strongly agree to strongly disagree. Quantitative data from the 39 valid questionnaires were analyzed using descriptive statistics, including frequencies and percentages. Interview and documentary data were analyzed thematically around service provision, educational access, digital inclusion, community space, skills development and operational constraints. Triangulation was used to compare user perceptions with staff accounts and activity records.

A total of 98 questionnaires were distributed to library users, of which 39 completed questionnaires were returned and included in the final analysis, giving a response rate of 39.8%. The quantitative results reported in [Tables 1 and 2](#) therefore use an analytical base of $n = 39$. The three staff interviews and documentary sources constituted the qualitative component of

the study.

The analysis is descriptive and case-specific. It assesses perceived contribution and documented service activity rather than causal SDG impact. No inferential tests are reported, and the evidence does not support claims about long-term educational, employment or urban-development outcomes.

4. Results

4.1. Service Profile: Strong Educational and Information Functions

Users most consistently recognized information dissemination, research facilitation and literacy-material provision. In the tabulated responses ($n=39$), 97.4% agreed or strongly agreed that the library disseminated information; the same proportion said it facilitated research, and 97.4% agreed or strongly agreed that it provided literacy materials. Support for government initiatives was also high (87.2%), as was provision of discussion spaces (87.2%). Awareness programmes on SDGs 4 and 11 were recognized by 84.6% of respondents. The least strongly endorsed activity was facilitation of local discussions specifically about SDGs 4 and 11: 71.8% agreed or strongly agreed, while 23.1% were unsure and 5.0% disagreed or strongly disagreed.

Table 1. User perceptions of services linked to SDGs 4 and 11 ($n=39$,%).

Service	Agree/strongly agree	Not sure	Disagree/strongly disagree
Information dissemination	97.4	2.6	0.0
Research facilitation	97.4	2.6	0.0
Support for government initiatives	87.2	12.8	0.0
SDG 4/11 awareness programmes	84.6	15.4	0.0
Literacy materials	97.4	0.0	2.6
Discussion spaces	87.2	10.3	2.6
Local discussions on SDGs 4/11	71.8	23.1	5.0

Source: Recalculated from the study's primary-data table. Percentages may not total 100 because of rounding.

Staff interviews broadened this service picture. Interviewees identified internet access, reference and reading-room services, information-literacy and ICT training, and entrepreneurship-oriented activities for young people. The library's August 2022 activity form provides evidence of scale: it recorded 3,660 computer users, 3,320 Wi-Fi users, 20 participants in computer training, 4,700 adult visits and 9,204 books disseminated during the month. The same record lists practical training in reusable-pad making, candles, briquettes, doormats,

crafts and liquid soap. These activities show a service model that combines conventional information provision with digital access and livelihood-oriented learning.

4.2. Perceived Effectiveness: Access and Research are Clearest Contributions

The second set of questionnaire items asked users to assess the library's contribution. All 39 tabulated respondents agreed

or strongly agreed that information dissemination promoted research and development. A further 92.3% associated the library with bridging the information-access gap, and 92.3% with supporting service delivery through information provision. Preservation and conservation of library resources was

positively rated by 79.5%, while 74.4% agreed or strongly agreed that community spaces fostered knowledge sharing. The latter item also produced comparatively high uncertainty (23.1%), suggesting that the library's civic-space role is less visible to users than its information and research functions.

Table 2. User perceptions of library contribution/effectiveness (n=39,%).

Contribution	Agree/strongly agree	Not sure	Disagree/strongly disagree
Bridges the information-access gap	92.3	5.1	2.6
Fosters knowledge sharing through community spaces	74.4	23.1	2.6
Supports service delivery through information provision	92.3	5.1	2.6
Preserves/conserves resources for future use	79.5	20.5	0.0
Promotes research/development through information dissemination	100.0	0.0	0.0

Source: Recalculated from the study's primary-data table.

Interview evidence helps explain these ratings. Staff described digital-literacy training as a mechanism for narrowing the digital divide and linked entrepreneurship and craft training to self-sustainability among youth and women. The documentary record is consistent with these accounts: Wi-Fi was used for e-learning, research, online examinations, tax-related services, job searching, institutional applications, meetings and communication. The library therefore appears to function as an access point to both educational resources and increasingly digitized public and economic opportunities.

5. Discussion

The Mbale case supports the argument that public libraries contribute to sustainable development through ordinary service functions as much as through explicitly branded SDG programmes. The strongest evidence concerns SDG 4. Users overwhelmingly associated the library with information dissemination, research support and literacy resources, while staff and activity records document digital and information-literacy training. These functions map plausibly onto lifelong learning, literacy and skills development, particularly SDG Targets 4.4 and 4.6. They also align with evidence from Uganda that libraries can become local platforms for digital inclusion when connectivity, equipment and trained staff are available.

The evidence for SDG 11 is more indirect and should be framed carefully. Discussion space, community knowledge sharing and access to public information can support inclusive urban life, but the questionnaire suggests that this role is less

salient to users than the library's educational role. Nearly one quarter of respondents were unsure whether community spaces fostered knowledge sharing, and local discussions specifically focused on SDGs 4 and 11 received the weakest endorsement among the service items. This finding suggests that being a public place does not automatically translate into a visible civic-participation function. Deliberate programming, partnerships and communication may be required if the library is to contribute more strongly to participatory urbanization under Target 11.3.

The case also illustrates the importance of partnerships in resource-constrained library systems. Uganda's wider public-library modernization has increasingly depended on collaboration among the National Library of Uganda, communications-sector actors, NGOs and development partners. Current national evidence shows that public and community libraries are being equipped with ICT and used for digital-skills programmes at increasing scale [3]. Mbale's documented use of computers, Wi-Fi and training fits this broader trajectory. Partnership, however, should not substitute for stable public investment: the source report's account of the loss of a central library building underscores the vulnerability of services when physical infrastructure and recurrent funding are insecure.

Evaluations of libraries' roles in realizing the SDGs further reinforce the importance of assessing contributions rather than assuming that service delivery establishes impact [15]. A further implication concerns impact measurement. The source study demonstrates substantial activity and positive user perceptions, but its evidence is primarily output- and perception-based. This is common in library SDG reporting, where the

challenge is moving from statements of alignment to demonstrable outcomes. Future research could strengthen causal inference by using longitudinal or quasi-experimental designs, comparison groups where feasible, and pre/post measures linked to specific library interventions. Evaluation at Mbale could track digital-skills measures, educational progression, job-search outcomes, repeat participation, demographic reach, accessibility and civic-programme participation. Such measures would help distinguish service popularity and perceived contribution from demonstrable development impact.

5.1. Implications for Policy and Practice

First, Mbale Public Library should formalize an SDG-linked service and evaluation framework rather than treating SDG contribution as an implicit by-product of existing programmes. A small dashboard could connect services to specific targets, define output and outcome indicators, and record disaggregated participation data.

Second, digital inclusion should remain a core service priority. The high use of computers and Wi-Fi, combined with staff reports of digital-literacy training, indicates strong demand. Structured learning pathways - from basic digital skills to information literacy, online public services, job search and entrepreneurship - would strengthen the library's contribution to SDG 4.4.

Third, the library's SDG 11 role requires more intentional community programming. Regular forums on urban services, local heritage, environmental issues and city planning could turn the library's neutral space into a more visible platform for participation. Partnerships with Mbale City authorities, schools, civil-society organizations and local businesses could extend reach while maintaining the library's public-interest role.

Finally, physical space and institutional sustainability remain foundational. A fit-for-purpose, accessible and resilient facility would strengthen both educational services and the library-as-place function. Investment decisions should therefore treat the public library as social and digital infrastructure rather than as a discretionary cultural amenity.

5.2. Limitations

The study has six principal limitations. First, it is a single-site case study and cannot be generalized to all Ugandan public libraries. Second, the questionnaire findings measure perceptions rather than objective long-term outcomes. Third, the questionnaire response rate was 39.8% (39 of 98 distributed questionnaires), which may limit the representativeness of the user survey findings and introduce non-response bias. Fourth, the available study records do not specify how the 98 questionnaire users were selected, so selection bias cannot be excluded. Fifth, because the questionnaire relied on self-reported perceptions, responses may have been affected by social desirability bias, with some participants potentially providing

more favourable assessments of the library. Sixth, some documentary evidence is activity-based and does not establish causality between library use and SDG outcomes. These limitations make the study best understood as an assessment of contribution pathways and perceived effectiveness rather than a causal impact evaluation.

6. Conclusion

Mbale Public Library demonstrates how a public library can contribute to sustainable development through information access, literacy resources, research support, digital-skills training and shared community space. The clearest contribution is to SDG 4: users strongly recognize the library's educational and information functions, and institutional records show substantial use of digital and print resources. Contributions to SDG 11 are credible but less visible, particularly in relation to civic dialogue and participatory urban development.

The case therefore shifts the question from whether public libraries contribute to the SDGs to how that contribution can be made more intentional, measurable and sustainable. For Mbale, this means protecting and improving physical and digital infrastructure, strengthening partnerships, programming the library as an inclusive civic space, and collecting outcome evidence that can support advocacy. In rapidly urbanizing African settings, such libraries can be modest in resources yet significant in function: local institutions that convert access to information into learning, participation and community capability.

Abbreviations

SDG/SDGs	Sustainable Development Goal(s)
ICT	Information and Communication Technology
UICT	Uganda Institute of Information and Communications Technology
IFLA	International Federation of Library Associations and Institutions
NGO/NGOs	Non-Governmental Organization(s)

Author Contributions

Ayubu Kisubi Islamic: Conceptualization, Resources

Data Availability Statement

Upon reasonable request, the corresponding author will provide the data supporting the study's conclusions. Any data shared will be de-identified and subject to the proper ethical and confidentiality considerations because the study involved human participants

Conflicts of Interest

The authors declare no conflicts of interest.

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