



Libraries are, arguably, an early example of the sharing economy. By collectively purchasing books (either through subscriptions in the case of private libraries, or tax in the case of public ones), they have proved a great way of maximising access while reducing consumption.

However, with growing awareness of the importance of environmental sustainability, libraries have been quick to act. As many papers submitted at IFLA's World Library and Information Congress underline, as institutions with a societal mission, it is natural for libraries to seek to address the major societal challenges of today. Survey work indicates a strong belief in the need to act on sustainability<sup>1</sup>. The United Nations' 2030 Agenda for Sustainable Development has brought this work into focus.

Libraries are well placed to contribute. As a network of at least 2.3 million institutions<sup>2</sup>, they have both global reach, and the possibility to understand and respond to local needs and priorities<sup>3</sup>. They also exist in very different contexts, from major national or university libraries to small public, school or mobile ones.

This article draws together examples of how libraries are using this commitment – and this potential – to deliver on sustainability in three key ways: 1) by showcasing sustainable building techniques and services; 2) by promoting understanding and action around sustainability in their communities; and 3) by supporting new research into sustainability.

## The Library as Exemplar: Sustainable Buildings and Practices

Libraries can be models for communities, both in what they are and what they do. Frequently placed at the heart of villages, towns and cities, they are a highly visible part of the civic landscape. And as the main – if not the only – covered public space, they have strong potential as a showcase for new ways of doing things, either independently or as part of broader government policy<sup>4</sup>. In countries and regions where the risk of extreme weather is highest, this can send a powerful message.

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<sup>1</sup> Kraljevic et al. (2015) *Project Green Library in Croatia*. <http://library.ifla.org/id/eprint/1208>

<sup>2</sup> IFLA Library Map of the World, [librarymap.ifla.org](http://librarymap.ifla.org) (consulted 25 September 2018)

<sup>3</sup> Kraljevic et al. Lukacic (2015), *ibid*

<sup>4</sup> Scholing et al. (2017) *Tablet Cafés, Code Hours, Preservation, and Sustainability in Libraries - The Aruba National Library and the UN Agenda 2030: A Small Island Case Study from the Caribbean*. <http://library.ifla.org/id/eprint/1712>

The Green Library movement began in the 1990s, with a strong focus on buildings<sup>5</sup>. Given the impact of the techniques and materials used, both in the initial construction and ongoing operation, this is an important place to start. As Qutab et al. underline, 'library buildings as providers of knowledge should ideally showcase knowledge about green/sustainable building by their own designs'<sup>6</sup>.

Libraries have therefore been active in taking steps to build in ways that reduce energy and water use<sup>7</sup>, using retrofitting technology in existing buildings<sup>8</sup>, and making the most of architectural features to limit the need for air conditioning<sup>9</sup>. Where new ones are built, there is an effort to place them in easy reach of public transport or within cycling distance of as many people as possible<sup>10</sup>. Recycled, re-used and re-purposed materials can be used in construction<sup>11</sup>.

As with all pioneering efforts, there can be hiccups, but these also provide an opportunity to learn about the limits of – and the need for persistence with – new technologies<sup>12</sup>.

Yet libraries are about far more than just buildings, and it is not every library that has the financial, or even the legal possibility, to carry out construction work. However, the practices adopted by staff can also make a difference. Activities such as reduction of waste and use of water and energy, or recycling competitions<sup>13</sup> can both reduce costs for the library, and further make use of libraries' potential to set an example to others. This in turn can make the place more attractive, and draw in more patrons<sup>14</sup>.

It is true that concepts such as Green Libraries are still most widely spread in richer countries<sup>15</sup>. However, interestingly, there is also some evidence that

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<sup>5</sup> Fresnido et al. (2018) *Going Green: Sustainable Practices in Philippine Libraries*. <http://library.ifla.org/id/eprint/2173>

<sup>6</sup> Qutab et al (2016) *Environmentally Sustainable Library Buildings: Opportunities and Challenges for Asian Countries*, <http://library.ifla.org/id/eprint/1432>

<sup>7</sup> Fresnido et al (2018), *ibid*.

<sup>8</sup> Qutab et al (2016), *ibid*.

<sup>9</sup> Chakraborty (2013) *Going green or not: realities of the Indian metropolis libraries*, <http://library.ifla.org/id/eprint/1113>

<sup>10</sup> Fresnido et al (2018), *ibid*.

<sup>11</sup> Soh et al (2013) *My tree house - World's 1st green library for kids*, <http://library.ifla.org/id/eprint/122>

<sup>12</sup> Burn (2014) *The Grove Library as an example: A "green" library in terms of ongoing community engagement, community expectations, information provision and sharing, and partnerships*. <http://library.ifla.org/id/eprint/940>

<sup>13</sup> Oyelude et al. (2013) *Greening: pluses and minuses of Nigerian libraries in promoting environmental sustainability*. <http://library.ifla.org/id/eprint/133>

<sup>14</sup> Burn (2014), *ibid*.

<sup>15</sup> Fresnido et al (2018), *ibid*.

even where awareness of Green Libraries as a concept is low, librarians are still taking actions on their own initiative that boost sustainability<sup>16</sup>.

## The Library as Educator: Promoting Sustainability Literacy

Access to information is at the heart of the mission of libraries, and is a central value for librarians around the world<sup>17</sup>. Many have long provided information about environmental issues as part of their collections. However, there is a sense in many countries that for libraries – and in particular public or school libraries – to realise their potential in promoting sustainability, they should take a proactive role<sup>18</sup>.

This applies as much at the level of the community as of the individual. Jeffrey Scherer underlines that libraries, as community centres, can 'establish a social compact that creates a positive chain reaction within a community. By inextricably linking the economic, social, environmental and economic performance of the library within the community, the library serves a new role model for governance...'<sup>19</sup>.

Indeed, this approach reflects a broader trend towards thinking about how to make access to information meaningful, as highlighted in the definition offered in the Development and Access to Information report<sup>20</sup>. According to this, for access to be effective, information must be available in a form that works for users, and that users themselves must be able to find, apply, and create their own information. In effect, information should enable actions that improve lives. Libraries have a particular potential to make this happen.

Petra Hauke's paper for the 2018 World Library and Information Congress offers an extensive discussion of the role in libraries in this respect<sup>21</sup>. She underlines that 'As cultural institutions that serve all members of society, including children, young adults, adults, and the elderly alike, libraries have a legal and moral obligation to contribute to sustainability education through teaching more than information literacy; they should take over the leadership in teaching sustainability literacy'.

Sustainability literacy in turn is defined as 'having the knowledge and skills to advocate for resilient social, economic and environmental systems'<sup>22</sup>. By

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<sup>16</sup> Oyelude et al (2013), *ibid*.

<sup>17</sup> IFLA (2018), *IFLA Global Vision Summary Report*, [globalvision.ifla.org](http://globalvision.ifla.org)

<sup>18</sup> For example, Uganda: Mulumba et al (2017) *The emerging role of LIS professionals in combating adverse environmental effects*, <http://library.ifla.org/id/eprint/1945>

<sup>19</sup> Scherer (2014) *Green libraries promoting sustainable communities*. <http://library.ifla.org/id/eprint/939>

<sup>20</sup> Garrido et al. (ed.s) (2017), *Development and Access to Information*, [da2i.ifla.org](http://da2i.ifla.org)

<sup>21</sup> Hauke (2018) *From Information Literacy to Green Literacy: Training Librarians as Trainers for Sustainability Literacy*. <http://library.ifla.org/id/eprint/2147>

<sup>22</sup> *Idem*.

providing sustainability literacy, libraries can therefore bring about the change in attitudes and habits in everyone that will be necessary in order to make a more sustainable society.

Hauke goes on to identify examples at the global, national and local levels where libraries (both university and public) are acting to deliver sustainability literacy. She also highlights IFLA's own Special Interest Group on Environment, Sustainability and Libraries (ENSULIB).

Delivering on this model, 363 libraries in Brazil have 'Green Rooms', which serve as information points about environmental issues<sup>23</sup>, while the National Library of Aruba has organised a Green Education Symposium<sup>24</sup>.

Other papers underline the benefits of working with children and young adults in order to build the habit of sustainability early in life. The Russian State Library for Young Adults has been working for many years on green issues, with libraries increasingly seen as leading information points on environmental issues in their communities. The Library also co-organised a Day of Environmental Knowledge that saw over 1500 libraries in 75 regions take part. Participants learnt about sustainability, and shared their experiences and ideas, including with the minister<sup>25</sup>.

Meanwhile, the 'My Treehouse' library for children, hosted within the central public library of Singapore, aims to do the same, with a mixture of education and exemplary use of materials, with a specific focus on how to make sustainability attractive for children<sup>26</sup>.

## The Library as Enabler: Supporting Sustainability Research

Libraries also have a major role in universities and research centres, providing the resources necessary for students and researchers. Going beyond simple provision of books and journals, they also offer valuable training and support to users on how to get the best out of the information available.

This work is particularly important in the case of sustainability, which is, by its nature, an interdisciplinary question, bringing together ideas and approaches from different fields. For faculty, students and librarians, this has required new approaches which work across, rather than within, subject areas. A first challenge has been to ensure that collections reflect the whole range of

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<sup>23</sup> Bezerra Cardoso et al (2015) *Sustainable and Green Libraries in Brazil: Guidelines for Local Governments*. <http://library.ifla.org/id/eprint/1207>

<sup>24</sup> Scholing et al. (2017), *ibid*.

<sup>25</sup> Purnik et al (2018) *Library as a "Point of Grow" in Sustainable Development Society*. <http://library.ifla.org/2177/1/187-purnik-en.pdf>

<sup>26</sup> Soh et al. (2013), *ibid*.

relevant approaches – one that the University of Nairobi library has consciously been seeking to address<sup>27</sup>.

In Sweden, for example, the library in Gothenburg has therefore developed adaptable tools on information literacy for sustainability, including a course for students. By focusing on information requirements around focused questions (in this case, a housing project), they have found a way of teaching how to perform research from the perspective of sustainability, with strong positive feedback from students and staff<sup>28</sup>.

In the United States, Fresno State University used an embedded librarian to work with STEM<sup>29</sup> students, with a particular focus on female students or those from minority groups. The librarian worked both to develop means of carrying out research across disciplines, but also to help with more fundamental questions around the way in which research is written and presented. As with Gothenburg, the focus on a specific question related to sustainability (such as coffee, water or campus environments) both made it more real, and allowed for an interdisciplinary approach<sup>30</sup>.

Librarians can take this approach out of the library and into research teams, as in the case of a project on developing research networks and capacity on sustainability issues in South Texas<sup>31</sup>. The specific skills of the librarian made it possible to ensure more effective cooperation, sharing of research and data, and the production of sustainability education modules.

## Into the Future

The contribution libraries can make to sustainability – both through their own practices and the behaviour change and innovation that they can catalyse in others – is clear. As Hauke notes, ‘the engagement of libraries and librarians worldwide in taking action for a sustainable worth living world is obvious as international, national, and local initiatives demonstrate impressively’<sup>32</sup>.

There are already reflections on how to take this work to the next level. Current international standards (such as LEED and ISO standards) focus

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<sup>27</sup> Achieng (2015) *Preparedness of University Libraries as drivers for green transformation and sustainable development: the case of University of Nairobi Library, Kenya*. <http://library.ifla.org/id/eprint/1209>

<sup>28</sup> Jadedfrid et al (2016) *Searching for sustainability - A blended course in how to search interdisciplinary*

<sup>29</sup> Science, Technology, Engineering, Maths

<sup>30</sup> Pun et al. (2018) *Campus Sustainability and Information Literacy for First Year Students: Preserving the University's Environment for the Future*, <http://library.ifla.org/id/eprint/2176>

<sup>31</sup> Xu (2016) *Using Library and Information technologies and Resources to Support Sustainability Projects*, <http://library.ifla.org/id/eprint/1339>

<sup>32</sup> Hauke (2018), *ibid.*

primarily on buildings and operational issues, without a specific focus on libraries. There is a sense that the unique nature of libraries – including their potential to offer services which promote sustainability – merit their own set of standards<sup>33</sup>. There are already some efforts to explore what these might include<sup>34</sup>.

IFLA's own Environment, Sustainability and Libraries Special Interest Group<sup>35</sup> includes, as part of its mission, work on promoting best practices, as well as celebrating the best ideas through the Green Library Award<sup>36</sup>. Meanwhile, the need to promote sustainability – in attitudes, practices and research – grows ever stronger. Demand for the contribution that libraries can make is not likely to fall any time soon.

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<sup>33</sup> Hauke (2015) *How to become / How to identify a Green Library? Standards for Certification*. <http://library.ifla.org/id/eprint/1237>

<sup>34</sup> Karioja (2013) *How to evaluate libraries' sustainability? An approach to an evaluation model and indicators*, <http://library.ifla.org/id/eprint/114>

<sup>35</sup> <https://www.ifla.org/environment-sustainability-and-libraries>

<sup>36</sup> IFLA Green Library Award, <https://www.ifla.org/node/10159>

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