

THE CHILDREN'S BIODIVERSITY LIBRARY BY S.E.A. AQUARIUM: A PUBLIC-PRIVATE PARTNERSHIP

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ABSTRACT

The National Library and Archives Board (NLB) Singapore's Children's Biodiversity Library by S.E.A. Aquarium (CBLSEAA), in Central Library, is Singapore's first-ever marine biodiversity-themed library space for children aged 12 years and below. CBLSEAA, which opened in January 2024, emerged from a community partnership between NLB, a government agency, and Resorts World Sentosa (RWS), a private company. Aiming to promote discovery and learning in an attractive family destination, CBLSEAA has raised awareness of marine biodiversity and sustainability for children through its programmes and design. Through CBLSEAA, NLB seeks to encourage a new generation of children to contemplate global challenges that they will grow up facing.

Keywords: Public-private partnership; Library spaces of the future; Discovery and learning; Community development; Sustainability

INTRODUCTION

The National Library Board (NLB) Singapore, with its vision to nurture Readers for Life, Learning Communities, and a Knowledgeable Nationⁱ, promotes reading, learning, information literacy, and Singapore history and heritage through its network of 28 public libraries across Singapore, the National Library, and the National Archives of Singapore. In 2024, NLB reached seven in 10 Singapore residents, encouraged its members to borrow 38.8 million physical and digital items, engaged 2.86 million participants via its programmes and exhibitions, and attracted 20.8 million visitors to its librariesⁱⁱ.

NLB's flagship public library, Central Library, occupies the basement of the main National Library Building in the civic district of Singapore. Central Library is one of NLB's most recently revamped libraries, re-opening its doors over a year ago on 12 January 2024. The library is free-to-use, and the programmes are offered free-of-charge. Given its central location, Central Library attracts Singapore residents from all over Singapore and tourists from overseas.

The Children's Biodiversity Library by S.E.A. Aquarium (CBLSEAA) for children aged 12 years and below is within the Central Library and is prominently placed next to the main library entrance. It was designed and built in collaboration with Resorts World Sentosa's (RWS) S.E.A. Aquarium and is Singapore's first-ever marine biodiversity-themed library for children. It took slightly over a year for NLB, a government agency, and RWS, a private company, to work out in detail the extent of the partnership that would eventually result in CBLSEAA.

LAB25

When NLB emerged from the pandemic in 2020, it realised that it would have to be prepared to adapt and ride the possibilities that were presented in an era of increasing uncertainty. In response, NLB developed a five-year plan known as the Libraries and Archives Blueprint 2025 (LAB25)ⁱⁱⁱ, which was in essence an invitation to partners and communities to join NLB on its

journey to reimagine libraries and archives of the future.

With LAB25, NLB developed an omnichannel network of library and archive services to support Singaporeans from all walks of life in keeping pace with societal, sociocultural, and economic changes. NLB identified and took on four key roles – Building a Learning Marketplace, Nurturing an Informed Citizenry, Inspiring Singapore Storytellers, and Being an Equaliser. NLB ensured that its revamped libraries would offer services that reflected these roles and actively sought out partners. A new team – the Partnership Division (PD) – was created and tasked to seek out such strategic partnerships to enhance NLB’s LAB25 roles.

Thus, when RWS approached NLB to explore a possible collaboration, NLB welcomed the initiative greatly and PD set about realising the partnership.

PARTNERING RESORTS WORLD SENTOSA

RWS, an integrated resort located on Sentosa Island, is home to hotels, lifestyle experiences, and family-friendly attractions including the S.E.A. Aquarium^{iv}. The S.E.A. Aquarium, one of the world’s largest aquariums and home to more than 1,000 species of marine animals, offers education programmes such as the Fun Academy on marine conservation for children^v. In 2022, RWS approached NLB to consider collaborating on children programmes and a longer-term partnership that would bring the educational content that S.E.A. Aquarium had to where the community was.

RWS’s approach was timely as NLB was revamping Central Library and was seeking to refresh the children’s section that had been last overhauled in 2013. NLB wanted the children’s library to be current and raise environmental awareness among children. The children’s section would also need to be aesthetically attractive and engaging for children and their families. NLB saw that partnering RWS would yield a novel and refreshing concept that could become a strong signature for a flagship public library.

Moreover, NLB realised that CBLSEAA, the product of a strong public-private partnership (SDG 17), would be well-positioned to drive progress across many of the 17 United Nations Sustainable Development Goals (SDGs)^{vi}. With its design, content, and programmes, CBLSEAA could raise awareness of life below water (SDG 14), life on land (SDG 15), and advocate for climate action (SDG 13). CBLSEAA’s revamp would also feature sustainable attributes (SDG 11), detailed later in Section 4a.

WORKING TOGETHER IN PARTNERSHIP

The early discussions revolved around the responsibilities of each party – NLB and RWS – in the partnership, ensuring that the scope of work and accountability were clearly outlined in the sponsorship agreement. The outcome of the discussions was that RWS would sponsor SGD 1 million for NLB to design and build CBLSEAA and provide CBLSEAA programming for 10 years, while in return, NLB would acknowledge the sponsorship from RWS by according them 10-year naming rights to the children’s section^{vii}.

After the agreement was signed, NLB and RWS began to design and build CBLSEAA to reflect its goal of promoting marine biodiversity. The process was complex, requiring adept coordination among multiple stakeholders and vendors within and without the two

organisations. NLB's Planning & Development team and Central Library staff worked closely with RWS's Projects team, architects, and contractors to incorporate marine-themed designs into a practical library space for children. NLB librarians collaborated with the Education, Research, and Conservation team from the S.E.A. Aquarium to curate an exciting suite of CBLSEAA programmes while NLB's Corporate Communications team coordinated with RWS's Brand Management team on the publicity for CBLSEAA.

The inter-agency communications continue to this day as both agencies continue to deliver quality programmes in CBLSEAA. It remains crucial for NLB to maintain its partnership mentality and collaborative approach towards enhancing its libraries with partners.

a. The Space

CBLSEAA, with its focus on biodiversity, was constructed using infrastructure with sustainable attributes, where old furniture was upcycled and green office indoor principles were adopted. Old bookshelves originally used to hold the adult's collection were refurbished and retrofitted as children's shelves, energy-saving lights that emit less heat and consume less energy were installed, and environmentally friendly materials were used for the flooring and paints.

Designed and built over a period of a year, CBLSEAA contains a programme room, multimedia zones for interactive learning, reading areas, and gamification kiosks to promote NLB's reading initiatives. Other facilities include a nursing room and a designated stroller parking zone. CBLSEAA holds over 100,000 books, audiovisual (AV) materials, and other items in the children's collection.

Children visiting CBLSEAA would be able to move across the three main immersive zones of the library on a journey from seashore to deep sea. The Intertidal Zone, nearest to the entrance, is targeted at children aged 4 – 6 years, with seagull mobiles suspended overhead, infographics on intertidal creatures, and multimedia stations where children can watch animated stories.



Figure 1: Children reading with their parents in the Intertidal Zone

The second zone is the Coral Zone created for children aged 3 years and below. This zone functions as the heart of CBLSEAA with a magnificent floor-to-ceiling coral column and colourful fish mobiles hanging overhead, replete with atmospheric sound and gobo lighting for an underwater effect. Parents and children can lounge on fish-shaped seats and read

books together from the low, front-facing shelves.



Figure 2: Books for babies and young children surrounding the coral column in the Coral Zone

The third and deepest zone is the Sea Jellies Zone, which holds the collection for children aged 7 – 12 years. There, they can enjoy a calming video projection of sea jellies and other ocean creatures, explore a marine specimen showcase of shells, coral skeletons, and shark jaws, as well as learn about the dangers of pollution from a model of an albatross with plastic waste in its abdomen.



Figure 3: A boy and his mother viewing the items on display at the marine specimen showcase

Children will also find gamification kiosks, called KidSpot, in the Sea Jellies Zone. KidSpot features bugs from NLB's popular children's reading initiative Book Bugs^{viii}. Children can use the kiosks to customise their individual Book Bugs avatars and send their designs up onto a large screen featuring an underwater universe of avatars belonging to different children.



Figure 4: Children customising their avatars at KidSpot gamification kiosks

There is also a programme room called The Submarine due to its resemblance to a submarine and it is equipped with a whiteboard and a projector for different types of programmes. The bright and cheerful space hosts storytelling sessions, craft workshops, and biodiversity-related programmes curated by the S.E.A. Aquarium and regular children library programmes. The Submarine, strategically located in the furthest corner of CBLSEAA, encourages programme participants to explore the library before and after each session. Participants who sign up online and attend the in-person programmes get to discover the library which ultimately leads to them being converted to active users of the library.



Figure 5: Children and parents participating in a workshop in The Submarine

The Courtyard is adjacent to CBLSEAA and accessible via the children's section. As Central Library is in the basement of the building, the Courtyard is a refreshing space where natural light and greenery can flow into the library, thus blurring the lines between indoors and outdoors. The Courtyard houses mangrove saplings that will grow to a certain height before being transplanted to Singapore's mangrove forests located on Sentosa Island.



Figure 6: Mangrove saplings in the Courtyard

With its intricately designed and carefully planned zones, CBLSEAA was envisioned to be an educational and immersive platform for children aged 12 years and below to learn about marine biodiversity and sustainability with the aim to inspire action.

b. Programmes and Services

The teams from NLB and the S.E.A. Aquarium meet regularly to plan programmes for each year and to facilitate programmes and review participants’ feedback. Between January 2024 and March 2025, CBLSEAA hosted 196 children’s programme sessions for 27,578 participants.

Table 1: Selected CBLSEAA Programmes in 2024

Programme Focus	Programme Title	No. of Participants	Date
Marine Biodiversity	A Day in the Life: Aquarium Edition	62	14 Jan 2024
	Ocean Art-Venture	58	17 Feb 2024
	"Adventures of Bini the Horseshoe Crab": Storytelling Green Market	73	9 Jun 2024
	[Earth Heroes] What's in Our Sea?	655	19 & 20 Nov 2024
Sustainability	Tinkerworks: Create Your Own Cardboard Whale	160	13 Jan 2024
	Magnificent Mangroves!	74	13 Apr 2024
	Water Wally & Sally Club: Little Water Sleuths	65	16 Mar 2024
	[Earth Heroes] Paper, Plastic, Metal: What to Recycle	378	14 July 2024

Here are some highlights:

1. **A Day in the Life: Aquarium Edition:** This is a series led by aquarists and divers from the S.E.A. Aquarium where they talk about the importance of marine biodiversity and share interesting snippets of their uncommon occupations at the aquarium.



Figure 7: A Day in the Life: Aquarium Edition

2. **Magnificent Mangroves:** In this workshop conducted during the school holidays, children get to learn about the benefits of mangrove ecosystems. Participants discover how mangroves prevent coastal erosion and act as nurseries for plant life. Conducted in collaboration with the S.E.A. Aquarium, this workshop includes hands-on elements where children get to re-pot mangrove saplings that will be transplanted into the wild on Sentosa Island.



Figures 8 and 9: Magnificent Mangroves

3. **Ocean Tales:** Ocean-themed storytelling sessions take place at CBLSEAA, with the aim of raising awareness on marine pollution and the importance of recycling. RWS Senior Management has strongly supported these sessions with RWS CEO Mr Tan Hee Teck and RWS President Ms Lee Shi Ruh telling stories to the children in separate sessions. Participants have praised the well-organised activities, interactive elements, and educational value that have made learning fun for children and adults alike.



Figures 10 and 11: Ocean Tales by RWS Senior Management

c. Tapping on Extended Networks

NLB worked closely with partners to bring in children and biodiversity-related programming throughout the year. One such programme was the Green Market, an NLB event that celebrated sustainable living and connected the community to green groups and initiatives they could support. Singapore author Ms Sophia Huang launched her book, *Ms Jug Finds a Home*, in a storytelling session for children, where participants also created their own toys with recycled materials.



Figure 12: Children participating in the Green Market



Figure 13: Children and parents creating their own toys from recycled materials in Sophia Huang's storytelling session

RWS reached out to their partners for collaborative possibilities too. The School of the Arts, Singapore (SOTA) produced informational content for CBLSEAA such as the infographics and the video projection of sea jellies and deep-sea creatures. RWS also connected NLB with Sentosa Development Corporation for the Magnificent Mangroves programme.

THE FIRST YEAR

On 12 January 2024, CBLSEAA was opened together with the newly revamped Central Library. The opening ceremony was attended by local and international partners, key internal and external stakeholders, patrons, and library staff.



Figure 14: Preschoolers participating in a colouring session in The Submarine on Launch Day



Figure 15: A crowded CBLSEAA full of happy families reading together

Since then, CBLSEAA has seen a steady increase in visits, welcoming nearly 488,876 visitors in its inaugural year from January to December 2024. This contributed to 58% of overall visitors to the Central Library.

In its first month, CBLSEAA received prominent and positive media coverage and was featured on 28 mainstream channels and online platforms. Generally, the media commented that CBLSEAA was a great free indoor space for children of all ages and highlighted the different things to do there.

1. **ByKido** listed CBLSEAA located in Central Library in a list of things to do with children in Singapore^{ix}.
2. **HoneyKids Asia** included images of CBLSEAA at Central Library as part of its listing on best public libraries for children in Singapore^x.
3. **Sassy Mama** listed heading to a children-friendly public library as a fun thing to do with children in Singapore. Public libraries in Singapore featured children's reading corners, colourful and vibrant decor, educational corners and more, making visiting libraries a great free indoor activity for children of all ages. Images of the CBLSEAA at Central Library were included in the article^{xi}.



Figure 16: Snapshots of mainstream media coverage

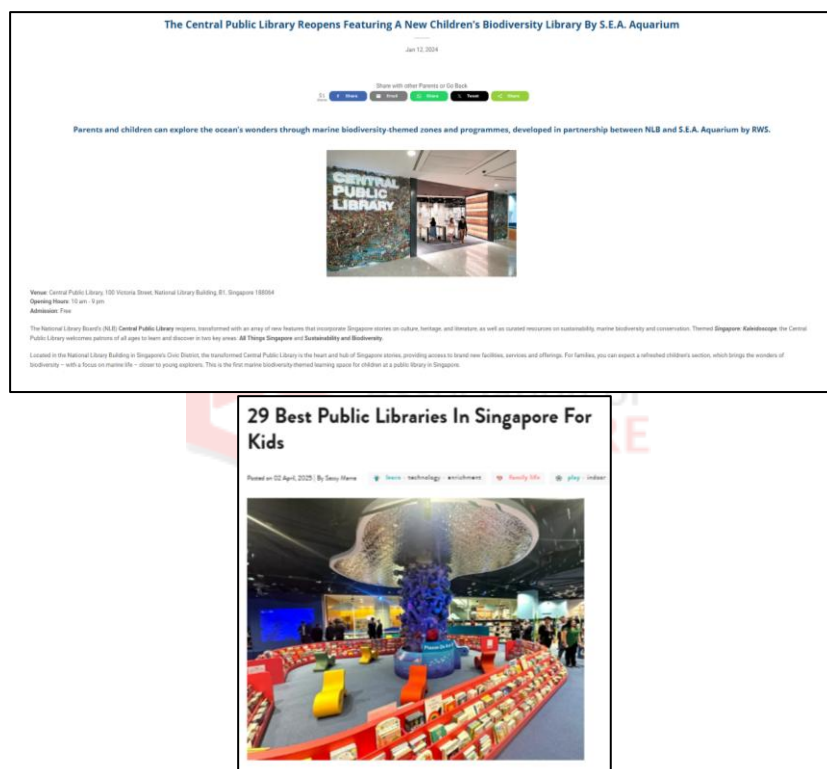


Figure 17: Screenshots of online media coverage

CBLSEAA has also been featured internationally and in publications, with the various articles exploring how marine biodiversity and sustainability themes have been integrated into library space, collection and programming for children. For example, librarian Aida Abdul Rahim’s article, *Sustainability Starts Young in Singapore Public Libraries*, was included in the June 2024 newsletter by the Environment, Sustainability, and Libraries Section for the International Federation of Library Associations and Institutions (IFLA)^{xii}. Librarians Eugenia Tan and Lim Shan wrote for the BBC Earth Magazine’s 4th Issue of 2024 and highlighted CBLSEAA’s transformation^{xiii}. Their article detailed the newly revamped space and highlighted its unique features and design.

FUTURE

Since its opening, CBLSEAA has been rebranded into the Children's Biodiversity Library by the Singapore Oceanarium. This is because RWS has transformed the S.E.A. Aquarium into the Singapore Oceanarium (SGO), a first-class institution that champions marine education and protection of the environment. SGO is three times the size of the previous S.E.A. Aquarium and showcases more content on a larger scale than before, brought to life through state-of-the-art digital innovation and interactive technology. It also offers new enriching educational experiences and programmes that inspire positive mindset change and drive action to protect the oceans^{xiv}.

CBLSGO will align with the educational experiences offered by SGO. This will ensure that the content offered in the library space remains current and fresh for library visitors as partnering with SGO unlocks new programming possibilities for the future.

CONCLUSION

CBLSEAA illustrates how establishing public-private partnerships can transform the library experience and at the same time address important global issues. Through CBLSEAA, NLB seeks to encourage a new generation of children to contemplate global challenges that they will grow up facing. In a socioeconomic climate of uncertainty, such a partnership underpins NLB's commitment to adapting and riding on possibilities that present themselves on its journey of innovation and experimentation to reimagine libraries and archives in Singapore. It also represents NLB's small contribution towards achieving the UN SDGs.

ⁱ National Library and Archives Board. (n.d.). *About Us*. Retrieved September 24, 2025, from <https://www.nlb.gov.sg/main/about-us>

ⁱⁱ National Library and Archives Board. (n.d.). *2024 Year-in-Review*. https://www.nlb.gov.sg/main/-/media/NLBMedia/Documents/About-Us/Press-Room-Publication/Facts-and-Figures/A4-Infographic_v3_20250402.pdf

ⁱⁱⁱ National Library and Archives Board. (n.d.). *LAB25 (Libraries and Archives Blueprint 2025)*. Retrieved April 28, 2025, from <https://www.nlb.gov.sg/main/about-us/About-NLB/lab25-libraries-and-archives-blueprint-2025>

^{iv} Resorts World Sentosa. (n.d.). *About Resorts World Sentosa*. Retrieved April 28, 2025, from <https://www.rwsentosa.com/en/about-resorts-world-sentosa>

^v Resorts World Sentosa. (n.d.). *S.E.A. Aquarium*. Retrieved April 28, 2025, from <https://www.rwsentosa.com/en/play/sea-aquarium>

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viii National Library and Archives Board. (n.d.). *Book Bugs: Tales of Travellers*. Retrieved September 19, 2025, from <https://www.nlb.gov.sg/main/site/discoverreads/bookbugs-tales-of-travellers>

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x HoneyKids Editorial. (2024, August 7). HoneyKids. <https://honeykidsasia.com/the-best-libraries-for-kids-in-singapore/>

xi Sassy Mama. (2025, April 2). *29 Best Public Libraries in Singapore for Kids*. Retrieved April 28, 2025, from <https://www.sassymamasg.com/best-libraries-for-kids-singapore/>

xii Rahim, A. A. (2024, June). Singapore: Sustainability starts young in Singapore Public Libraries. *ENSULIB Newsletter*, 4(1), 15-16. <https://repository.ifla.org/handle/20.500.14598/3458>

xiii Tan, E. & Lim, S. (2024). Dive into the New Children's Biodiversity Library by S.E.A. Aquarium at Singapore's Central Public Library. *BBC Earth Magazine*, 16(4), 58-59.

xiv Resorts World Sentosa. (2022, 17 February). *Resorts World Sentosa's Expansion to Lead the Recovery of Singapore's Tourism*. <https://www.rwsentosa.com/en/about-resorts-world-sentosa/press-room>