

SUSTAINABILITY IMPACT REPORT 2023

北京顺义国际学校 INTERNATIONAL SCHOOL OF BEIJING

2023 SUSTAINABILITY IMPACT REPORT



The International School of Beijing (ISB) is proud to present the Sustainability Impact Report for the year 2023, marking a significant milestone as we returned to normal operations on our campus after the challenging era of the Covid-19 pandemic. As we embrace this new chapter, we are met with new challenges and exciting opportunities to further enhance our sustainable practices and make a positive impact on the environment.

Throughout 2023, ISB remained firm in its commitment to sustainability and witnessed notable progress in our goals. One of the highlights of the year was the successful installation of solar panels on our campus. This significant step towards renewable energy sources not only reduces our carbon footprint by producing an average of 10-15 percent of our annual electricity consumption but also serves as a tangible demonstration of our dedication to sustainable practices. It also helps to foster our students' environmental consciousness and responsible practices as we prepare them to be global citizens who can contribute to a more sustainable future.

While 2023 presented its own set of challenges, it also provided us with valuable opportunities to learn, grow, and refine our sustainable practices. The ISB community, including students, staff, parents, and the greater international community, played an integral role in our continued progress. Through collaborative efforts and a shared commitment to sustainability, we have fostered a culture of compassion, care for the planet, and joyful learning.

As we unveil this report, we extend an invitation to all readers to join us in our endeavors. Every individual has the power to make a difference through actionable steps in their own lives. Together, we can create a collective impact that transcends boundaries and contributes to the global fight against climate change.

We envision 2024 to be the year in which we strengthen our commitments towards carbon neutrality by setting even more ambitious carbon reduction targets. Additionally, we will embark on the next phase of our school's sustainability action plan, ensuring the continuity of our commitments. This year, we will emphasize crucial areas including education and awareness; employing data analytics for resource optimization to closely monitor and report progress; sustainable procurement; and effective waste management.

ISB is excited for the future and the opportunities it holds to further advance our sustainability goals. We remain dedicated to educational excellence intertwined with sustainability, and we look forward to our continued progress.

Paola Alonso Sustainability Manager

About this report: This Sustainability Impact Report covers events and activities that occurred during the 2023 calendar year. A preview of the goals that we aim to achieve during the whole of 2024 will be included here as well, as we laid much of the groundwork for these actions during 2023. The data presented in this report includes items over which we have operational control (e.g., our campus and busing). Climate data was determined in alignment with the GHG Protocol Corporate Accounting and Reporting Standard methodology.

CURRICULUM LEARNING + SHARING

A collective effort, supported by the Curriculum Area Leaders (CAL) in the Middle School and High School, led us to the conclusion that our curriculum actively integrates several Sustainability Indicators from The Cloud Institute for Sustainability¹.

These standards integrate knowledge, skills, attitudes, and habits of mind related to sustainability into school culture, curriculum, instruction, and assessment practices. The standards are designed to prepare students for active participation and leadership in creating a sustainable future. The core content areas cover a range of topics, which are: cultural preservation and transformation, responsible local and global citizenship, understanding systems and change, sustainable economics, healthy commons, natural laws and ecological principles, envisioning and shaping the future, embracing multiple perspectives, and cultivating a strong sense of place. By addressing these standards, students develop the ability to navigate complex systems, think critically, and contribute to the well-being of their communities and the environment.

Currently, ISB is actively engaged in the process of enhancing and assessing the implementation of the Education for Sustainability (EfS) Standards. The objective is to gauge the extent to which these standards are integrated into our educational practices and identify areas where further improvement is needed to cultivate sustainability awareness among our students. Collaborating closely with the Office of Learning, this ongoing effort plays a crucial role in our endeavors to promote sustainability education throughout our school community.

CO-CURRICULAR

LEARNING + SHARING

Goal

Develop and introduce service learning and sustainability guidelines for whole school cocurricular program with the intent of establishing holistic impact thinking and action by 2020.

Commitment to

Foster a new generation of environmental leaders by providing mentoring, networking, and experiential learning opportunities that prepare students with the insight and foresight to safeguard our environment in the years and decades to come.

Commitment to

Support student entrepreneurship by facilitating sustainability-minded opportunities on campus

ISB continued its commitment to lead the way in making changes and improvements within all of our co-curricular activities, especially those falling under the Asia Pacific Activities Conference (APAC):

Consisting of students, teachers, and leaders from seven schools, we established the APAC Sustainability Committee. The committee will formulate a philosophy statement and a set of guidelines to be implemented across APAC events. These guidelines will focus on four specific areas that were identified by 484 students: Advertising/Marketing, Transportation, Clothing, and Single-use plastics.

Participant schools included:

- Western Academy of Beijing
- Shanghai American School Pudong and Puxi
- ^o Concordia International School Shanghai
- ^o American International School of Guangzhou
- ° Seoul Foreign School
- ^o United Nations International School
- ^o Hong Kong International School
- The working group responsible for this initiative will continue to refine these deliverables, and the aim is to fully adopt them before the end of the current school year.
- Within our Activities Office, prioritizing sustainable forms of transportation for school trips has been a key focus. To reduce our carbon footprint, we have shifted towards booking train travel for more of our trips within China instead of relying on planes.

Students also showed exceptional growth as environmental leaders and participated in various activities continuing their learning. For example:

 In a remarkable display of student-driven progress, a project proposed by the Green Impact student club came to life as solar panels were installed on our campus in the summer of 2023. High School and Elementary School students connected through their knowledge and interest in renewable energies, and together they initiated this way of ISB generating our own electricity. This extraordinary collaboration exemplifies once again the power of student initiatives at our school.







ISB athletes at the train station on their way to the APAC Soccer Tournament in Shanghai





Solar panels inauguration ceremony

¹ The Cloud Institute for Sustainability Education, "Education for Sustainability (EfS) Standards and corresponding Performance Indicators," accessed May 8, 2024, <u>https://cloudinstitute.org/cloud-efs-standards</u>.

- The Green Impact High School club carried out awareness-raising activities during Earth Week in April. These activities included educational lessons on deforestation, a newly established tradition of planting trees on our campus, and promoting the environmental benefits of plant-based diets, among other relevant topics.
- Green Impact submitted to the school administration a proposal to host the first Sustainability Summit at our campus. This will be a transformative experience for students and adults to equip them with the knowledge and motivation to become environmental stewards.
- Grade 4 students participated in an activity where they repurposed old clothing to create tote bags, providing them with a valuable lesson on the significance of upcycling. In addition to learning about sustainability, this activity also allowed students to develop practical skills such as craftsmanship, fostering their creativity and resourcefulness.
- The first Climate Activist Scavenger Hunt, in which students from Elementary, Middle, and High School actively learned about environmental leaders from various backgrounds, celebrated individuals of different ethnicities, genders, and cultures, emphasizing inclusivity and representation in the fight against climate change.
- Our rooftop garden has been a resounding success, providing a unique and enriching experience for students across all grade levels. This green space has become a thriving hub of hands-on learning and exploration. Students not only learn about the importance of sustainable practices but actively engage in the entire plant lifecycle. From planting seeds and nurturing seedlings to observing growth and finally harvesting, they gain a comprehensive understanding of the process of food production. By witnessing firsthand the transformation from seed to table, students develop a profound appreciation for the value of fresh, locally grown produce. Gardening also encourages healthy eating habits and fosters a deeper connection with the natural world. The rooftop garden serves as an outdoor classroom, integrating multiple subjects, including biology, environmental science, and math. It also supports mentoring groups in the Middle and High Schools, playing a role in their social-emotional learning curriculum.



Members of the Green Impact High School club and Grade 4 planting a tree in our parking lot



Grade 1 students harvest organic vegetables



Grade 8 students garden togther



Grade 4 students learn the importance of recycling



Middle School students learn about the importance of climate activism



Climate activist posters

GOVERNANCE LEARNING + SHARING

Goal

Develop and integrate a Social Cost of Carbon and Water into purchasing processes by 2025.

Commitment to

Facilitate strong governance structures to ensure integration of sustainability into all operational

Commitment to

Although no new policies were established last year within the sustainability program, ISB continued to build awareness among community members about these policies.

We soft-launched a Sustainable Event Checklist, establishing a valuable tool in aligning the practices of ISB community members organizing events with our overall program goals. This ongoing initiative involves engaging with school leadership and the parent body to ensure successful implementation. Their support has been instrumental in driving these efforts forward.

At the same time, we began the review of the proposal for a Spring Fair Sustainability Guideline in collaboration with our Parent Teacher Association (PTA). Together, we aim to host more environmentally friendly events and make consistent progress across various planning areas.

IMPACTFUL SHARING

LEARNING + SHARING

Commitment to

Commitment to

Commitment to

Cultivate external partnerships within the wider community that help inform ISB's efforts and amplify our local and global impact.

Our Sustainability Impact Reports accessed through our website continue to be public and available to anyone wanting to engage with this work.

In 2023, the Staying Connected staff newsletter played a vital role in keeping our community informed about important updates within our program. Staff members were provided with key information, including the promotion of the rooftop garden and the opportunities to integrate it into the curriculum and co-curricular activities. The newsletter also highlighted the e-waste collections, the launch of our new farmers market, the inauguration of our solar panels facility, and various educational resources. These updates aimed to engage and involve our community in sustainable initiatives.

Our recently dedicated wall display about our commitment to sustainability is a fantastic installation that serves as a powerful communication tool, inviting everyone to actively engage in our sustainability initiatives and informing them about our exciting progress. This project follows our approach towards the installation of more green walls around campus and reminds us of the impact we can have on our surroundings. The wall also purifies the air, fosters biodiversity, and creates a serene environment that promotes well-being.

Along with the wall, we installed a digital display on which we share information and foster community engagement. Through this digital interface, we will showcase our sustainability efforts, keeping people informed about ongoing projects, initiatives, and achievements.







APPROACHING

MASTERING

MEETING



Sustainability Wall



ISB Farmers Market

FOOD PEOPLE

Standard

Develop Sustainable + Healthful Food Standard (with consideration towards nutrition, labeling, sourcing, and impact) by 2020.

Commitment to

Educate and empower the ISB community to make sustainable food choices and form healthy eating habits.

Commitment to Promote drinking water on campus to support healthy choices and hydration.

ISB organized its first Farmers Market to celebrate Earth Day and promote sustainability. In partnership with the Shared Harvest farm and social enterprise, the market offered the whole school community the chance to experience fresh produce from local farmers while supporting ISB's commitment to sustainability.

Our catering contractor continued to support students and staff who follow a plantbased diet by offering vegetarian and vegan options in the cafeteria. ISB also continues to acknowledge that plant-based diets reduce the environmental impact of food production and resource conservation.





High school students conduct a food waste audit in December of 2023

Waste PEOPLE

Target

Reduce waste per student by 60 percent by 2025 from a 2017 baseline, where waste is defined as "no-longer-wanted materials leaving the campus not managed by one of the 5Rs."

Commitment to

Improve awareness and education of the ISB community on the 5Rs (refuse, reduce, reuse, recycling, rot) and the impacts of the waste we generate.

Commitment to

Long-term ambition to become a zero-waste school.

In December of 2023, our students conducted interviews to understand the reasons behind food waste and assessed the amount of waste during High School lunch time in our Middle/High School Cafeteria. The audit found that the average daily weight of food waste during High School lunch time in our Middle/High School Cafeteria was 8.10 kg².

The interviews provided valuable insights into individual behaviors and motivations, contributing to a good understanding of the issue. The collected data is helping our catering contractor to better serve specific needs and implement strategies to reduce waste.

During the audit, the main reasons for students not finishing their lunch included:

- Food is too salty
- Portions are large
- Food contains too much oil

In collaboration with our ICT team and with the promotion of our e-waste collection, we collected 800 kg of e-waste. This sustainability event highlights the importance of responsible e-waste management. By properly disposing of electronic devices, we protect the environment and promote the conservation of valuable resources.



WATER PEOPLE



APPROACHING

MASTERING

MEETING

BEGINNING

Target

Reduce water withdrawal by 25 percent by 2025 from a 2018 baseline.

Commitment to Minimizing additional stress on the Beijing water system from new water needs through focus on reuse and efficiency.

ISB consumed a total of 74,668 cubic meters of water across the campus in 2023. This is a notable 12-percent reduction compared to our 2018 baseline.

While this reduction was substantial last year, we attribute this to the fact that our campus was not fully occupied. Despite operating at full capacity this year, we are still able to achieve significant water savings with the implementation of our landscaping policy and diligent monitoring of water leaks and repairs.

PLANET

Target

100 percent of electricity from renewable sources starting in 2020.

Target

Reduce Scope 1 and 2 greenhouse gas emissions by 80 percent by 2025 from a 2018 baseline. Target

Achieve net-zero greenhouse gas emissions by 2050. As part of this target ISB commits to reducing Scope 1+2+3 emissions by 90 percent by 2050 from a 2018 baseline.

Commitment to

Reducing greenhouse gas emissions to align with the most ambitious aim of the Paris Agreement, to limit global temperature rise to 1.5C above pre-industrial levels, meaning to reach net-zero emissions by no later than 2050.

ISB successfully completed the installation of our first solar panels on the existing flat roof of the campus. Among several considerations to maximize the efficiency of the solar array, the solar panels were installed at an inclination angle of 15° to maximize power generation, with a minimum distance of 1.8 meters between each row to prevent shadow occlusion.

Through this project, we aim to generate 1,000,000 kWh of electricity annually with a power generation efficiency of 22.5 percent. The installation comprised 1,323 solar panels, covering a total area of 3,301 m².

The project's social and environmental benefits were significant. Based on a comparison with standard coal power generation, it was estimated that the solar installation would annually save 122.81 tons of standard coal consumption among other significant pollutants.

Aimed at enhancing students' understanding of the initiative, the infographic on the next page provides key information about our solar panels.



ISB's solar panels



ENERGY PLANET

Target

Achieve an ENERGY STAR building score of 50 by 2025 and 75 by 2030.

Commitment to

Assess energy use by building and space type to inform ENERGY STAR goal setting by 2020.

Commitment to

Engaging campus in energy conservation.

Commitment to

Conduct on-site renewable energy study to inform goal setting.

Commitment to

Assess feasibility, timeline, and develop initial action steps for the transition into a fossil-free campus.

To optimize energy usage in our buildings, we continued to implement temperature control measures for different seasons and occupancy hours with the objective of optimizing energy consumption for cooling and heating.

Less reliance on fossil fuels is one of our main goals, and through efforts like these, ISB promotes active participation from building occupants by encouraging environmentally conscious practices. Simple actions, such as wearing seasonally appropriate clothing and keeping doors closed when not in use, can collectively contribute to energy conservation and environmental sustainability.

Furthermore, we plan on providing mechanisms for feedback and addressing indoor air quality concerns to foster a culture of sustainability and accountability within the school community.





PROCUREMENT PLANET

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Target Fifty percent of procurement spend meeting sustainability purchasing standard by 2025, 100 percent by 2030.

Standard

Develop sustainable purchasing standard for paper, lighting, and electronics by 2022, other relevant items by 2025.

Commitment to

Purchasing in an environmental, social, and financially sustainable manner.

Commitment to

Creating a culture of sustainable purchasing across the community.

Commitment to

Including environmental and social criteria as part of major partner procurement and require major partners to support the achievement of and provide reporting for relevant ISB targets and commitments.

ISB's procurement practices took a sustainable turn in 2023. Our Communications & Marketing and Human Resources directors, with support from the Purchasing Manager, partnered with local company Good Cycle to produce new polo shirts for employees with the objective to cut down on purchasing additional T-shirts throughout the years. Each polo shirt is made with eight recycled PET³ bottles combined with synthetic cotton fabric.



By choosing a local company like Good Cycle, ISB once again demonstrated its commitment to supporting the local economy and reducing the environmental impact associated with transportation.

Overall, ISB's procurement practices for the sustainable polo shirts showcased a conscious effort to prioritize local partnerships and incorporate branding elements that aligned with the school's values.





DESIGN CAMPUS

Commitment to

Responsible campus design that minimizes negative impacts on the local community.

Commitment to

Enhance student and staff well-being and productivity through incorporation of biophilia into campus design and subsequent ISB strategic planning processes.

Our school is dedicated to prioritizing staff well-being and productivity by incorporating thoughtful design elements into our campus spaces. While we have not yet completed any specific indoor campus design projects, we have initiated the process of envisioning improvements for our campus in 2024. One significant aspect of this effort is the creation of a new entrance to the school, where we are actively considering the inclusion of green elements in the design.

By incorporating green elements into our campus design, we aim to create a welcoming and sustainable environment that enhances the well-being of our staff. These green elements can include features such as living walls, indoor plants, natural lighting, and sustainable materials. These design considerations have been proven to positively impact productivity, reduce stress, and foster a connection with nature. Our green walls thus continue to be a great feature of our campus.





BEGINNING APPROACHING MEETING

MASTERING

OPERATIONS CAMPUS

Goal

Achieve LEED Operation + Maintenance certification by 2030 at Silver level or higher.

Standard

Develop ISB Green Cleaning Standard by 2022.

Commitment to

Develop best practice guidelines for managing and operating buildings and capital goods in excess of 500,000 RMB in a sustainable and energy-efficient manner in order to assist in achievement of sustainability-related targets, standards, and commitments.

Operations on our campus continue to be closely monitored and improved. By collecting data and adjusting how we utilize our resources, we continue to achieve savings in several areas.

The newly installed solar panels system was also incorporated in the monitoring and maintenance plan of our operations team to track our electricity production and to keep the system working efficiently.



TRANSPORTATION CAMPUS

Target

Electrify 75 percent of bus and taxi fleet by 2025; 100 percent by 2030.

Commitment to

Reduce emissions of harmful vehicle-related air pollutants within the community and particularly on campus.

Back in 2019, ISB worked with the bus services provider to incorporate electric buses into our school fleet, resulting in 50 percent of these buses being powered by electricity and the other half by diesel.

In 2023, ISB added eight more electric buses to our fleet. With this addition, 70 percent of our buses are now electric.

IMPACT DATA

As part of ISB's commitment to transparency, below is a compilation of environmental, social, and governance indicators. All reported values represent the best available data at the time of publication. Data may be adjusted in the future to incorporate updated methodology, structural changes, and/or minor corrections. Additional details on these changes are included as footnotes where applicable. Environmental Data is based on the calendar year.

	Units	2023	2022	2021	2020	2019
Students (EY3 - Grade 12 / September) Staff Female Male Women in Leadership Women in Faculty Women in Support Staff	# # % % % %	1664 431 71% 29% 61% 60% 82%	1722 422 69% 31% 61% 57% 83%	1660 420 65% 35% 54% 137 146	1790 134 141	1784 418
Student-Driven Sustainability Projects	#	1	1	2	0	2
Staff Recognized as Sustainability Change Agents Students Making an Impact News Articles	# #	1	2 5	11 3	13 3	6 3
Scope 1 - Direct ¹ Scope 2 - Purchased Electricity ² Scope 1 + 2 Emission Reduction from 2018 (Target 80% by 2025)	MTCO ₂ e MTCO ₂ e %	3405 0 91	3378 0 95	3020 0 77%	2387 0 81%	3150 10118 4%
Scope 2 - Electricity (default supply) ² Scope 3 - Fuel- and Energy Related Activities ³ Scope 3 - Waste Scope 3 - School Travel Scope 3 - Employee Commuting	$MTCO_2e$ $MTCO_2e$ $MTCO_2e$ $MTCO_2e$ $MTCO_2e$	9089 56 27 556 400	8624 41 14 96 399	9439 58 61 96 0	7447 63 63 8 0	10118 682 68 943 3162
Total Energy Use Electricity - Buildings Natural Gas / Diesel / Petrol Renewable Electricity Use Renewable Electricity Bus Fleet Electrification (Target 75 by 2025) ISB Vehicle Electrification ENERGY STAR Scores (Target 50 by 2025)	MWH MWH MWH % % 1 to 100 (100 is best)	28589 9587 17827 12547 100 60 33 26	26257 8939 17126 12000 100 50 33 26	26179 9587 16158 10021 100 50 33 16	20752 7689 12846 7906 100 50 0 33	27166 10268 16714 0 50 0 9
Water Withdrawal Water Withdrawal Reduction from 2018	Cubic Meters %	74668 12	69943 17	66738 21%	62245 26%	94060 -11%
Waste Landfilled / Incinerated Waste Recycled Waste Composted Waste Generated per Student Compost and Recycling Rates	Metric Tons Metric Tons Metric Tons kg / student %	58 5.15 0 0.035 9	30.6 2.84 0 0.018 12	39 1.3 0 0.023 11	No data No data O No data	116 3.5 <1 0.065 4

Footnotes:

1.) Direct emissions means emissions that are in our direct control. This includes the natural gas we burn in our boilers, the diesel in our buses, and the refrigerants released from our chillers.

2.) Best practice is to report the emissions from electricity in two ways. The first is based on who you buy your electricity from, which could be from a wind or solar farm, resulting in no emissions; this is called the market method. The second is based on where you are and the average emission impact of the electricity in the region; this is called the location method. The intent of showing both is to understand the impact of your electricity purchasing decisions.

3.) Fuel- and Energy Related Activities refers to the emissions associated with extracting, processing, and transporting the energy consumed, whether it be coal, natural gas, or oil.

 $MTCO_2 e = metric tons of carbon dioxide equivalents. All greenhouse gases have different global warming potentials; to determine the carbon dioxide equivalent of methane (CH4) for example, you would multiply the emissions by its global warming potential of 28.$