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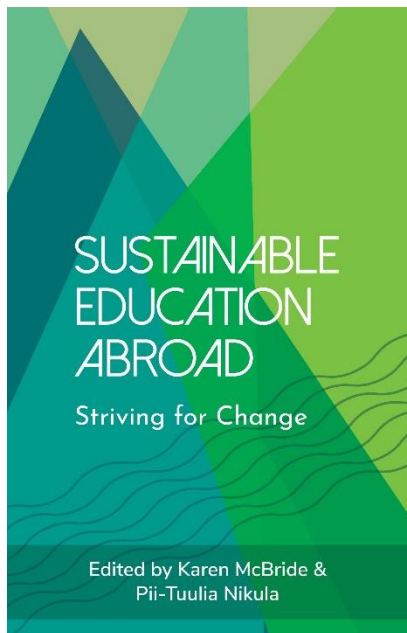
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The Age of Sustainable Education Abroad: Key Questions and Trends

Pii-Tuulia Nikula and Karen McBride

Objectives of the Book

Sustainable Education Abroad: Striving for Change is a timely and important book. Humanity is facing major global crises that require fast and decisive action. We have failed to adequately address a number of social issues (Raworth, 2017; Rockström et al., 2009). This is why all sectors need to rethink their modus operandi and introduce changes to better protect our human and ecological well-being. Education abroad is no exception. We need to reduce our sector's negative impacts while amplifying the positive local and global impacts of education abroad. This book will help toward that goal by improving key stakeholders' understanding of sustainability issues and available solutions. Hence, this edited collection is an essential reading for education abroad and sustainability professionals within educational institutions, researchers, and policymakers.

The key focus of this book is on education abroad, which The Forum on Education Abroad (2020) defines in clause 3.11 of the Terms and Definitions section of the *Standards of Good Practice for Education Abroad* as "enrollment in courses, experiential learning, internships, service learning, and other learning activities, which occurs outside the participant's home country, the

country in which they are enrolled as a student, or the country in which they are employed as personnel."

A significant number of students participate in education abroad programs each year. Pre-COVID-19 (in the 2018–2019 academic year), 347,099 American students were enrolled in credit-bearing study abroad and around 38,000 students participated in non-credit-bearing programs (Open Doors, 2021). Due to the COVID-19 pandemic, these numbers declined significantly in 2019/2020, but 162,633 Americans were still able to study abroad for academic credit (Open Doors, 2021). In Europe, more than 300,000 students participated in the Erasmus+ mobility scheme (European Commission & Directorate-General for Education, 2021) and around 50,000 Australian university students were involved in study abroad in 2019 (Department of Education, Skills and Employment, 2021). The sheer number of students engaged in these and other education abroad opportunities globally means that sustainability questions associated with this mobility warrant careful investigation. Many of the issues and solutions are shared with other forms and modes of international education, such as degree-seeking mobility. Hence, many of the insights from this book are likely to be applicable to wider international education contexts.

This edited volume is an outcome of a collaborative effort made possible by the authors who are all passionate experts in the field of education abroad, sharing their knowledge, experiences, and research. By emphasizing and presenting solutions, the contributors offer a positive response to the sustainability issue. The findings are of interest to the global audience, with chapters exploring learnings from North and Central Americas, Europe, Africa, and Oceania. The chapters in this book present both new primary data and insightful evaluations of existing programs and practices, enhancing our awareness of the underlying complexities. Hence, the collection offers a multitude of ideas for practitioners and researchers across the globe.

Sustainability in Education Abroad

How much focus are academics placing on sustainability within the study abroad context? In the past couple of years, a number of academic journal articles have been published that have examined this intersection using both qualitative and quantitative study designs. For instance, Zhang and Gibson (2021) conducted qualitative interviews with 31 former short-term study abroad students (from the U.S. to the South Pacific) to explore whether participation in a sustainability-themed study abroad program resulted in changes in participants' long-term sustainability attitudes and behaviors.

Their findings indicated that a "sustainable mindset" was retained by many participants after the program, with specific changes in many participants' everyday lives, career paths, and travel styles. Other examples include the study by Hane and Korfmacher (2020) highlighting how the exposure to a new culture can have an impact on the way students think about environmental problems, and the contribution by Thomas (2020) discussing ways in which educators can deepen university students' sustainability understanding with examples from a semester-long study abroad program in Italy.

The impact of studying abroad has also been explored using quasi-experimental designs. Tarrant et al. (2021) evaluated the influence of different pedagogical models, including study abroad and sustainability topics, on student engagement using quantitative pre- and post-survey results. The self-reported data from 3096 undergraduate students in the United States demonstrated that the positive impact on deep learning was associated with both sustainability courses and study abroad participation. However, the study could not confirm whether learning about sustainability while studying abroad enhanced deep learning more compared to studying non-sustainability-related subjects abroad. In another paper employing a similar design with a dataset including 1703 undergraduate students from the United States, the authors argue that studying abroad, regardless of the topic, can be an effective way to improve sustainability literacy (Ling et al., 2021).

Researchers have also provided estimates/calculations of greenhouse gas emissions related to education abroad-related travel (c.f., Arsenault et al., 2019; Hale, 2019; Shield, 2019). These insights are important so that we can better understand the environmental costs related to student mobility. Furthermore, considering the travel disruption caused by the COVID-19 pandemic, institutions and educators have been prompted to consider alternative ways to provide international experiences, including virtual exchanges/collaborative international learning (COIL) opportunities. For instance, a survey of 216 members of The Forum on Education Abroad reported 60% growth in virtual offerings in 2021 (The Forum on Education Abroad, 2021a). This highlights the importance of further exploring the intersection of virtual exchanges/COIL and sustainability (e.g., Bowen et al., 2021; King et al., 2021). Moreover, the topic of reciprocity, including equitable and sustainable partnerships between low-, medium-, and high-income countries, has attracted scholarly attention. For instance, Jotia, Biraimah, and Kurtz (2020) discuss the way in which short-term study abroad programs organized in the Global South could be made more beneficial to host institutions/communities, while also simultaneously improving student experiences. There seems to be less research focusing on the study abroad experiences of students from low-income countries.

Bell et al. (2021) highlight this issue and discuss the experiences of Indian short-term study abroad students in Australia as well as the ways in which Higher Education Institutions (HEIs) could further increase the level of reciprocity in study abroad programming.

Besides academic research, a number of industry presentations and initiatives have highlighted the importance of sustainability within the education abroad and wider international education community. The Forum on Education Abroad has developed guidelines aiming to enhance sustainability awareness and action within the sector. These guidelines align with U.N. Sustainable Development Goals (hereafter SDGs) with specific education abroad activities (The Forum on Education Abroad, 2021b). SDGs are also the starting point for many chapters in this book, providing a useful framework when addressing a variety of social and ecological concerns. Other examples of recent North American initiatives include NAFSA's decision to use sustainability expertise to appoint its 2020–2021 Senior Fellows leading to a special edition issue highlighting trends and insights (NAFSA, 2021).

A number of initiatives focused on sector-wide sustainability engagements outside North America are also available. Examples of these include, for instance, the European Green Erasmus project (https://greenerasmus.org/) aiming to enhance awareness about the importance of sustainable internationalization, the European Association for International Education (EAIE) forest initiative offsetting emissions related to their annual conference (https://www.eaie.org/blog/eaie-starts-education-forest-offset-co2.html), and sustainability articles/contributions featured in industry magazines/other industry platforms (see for instance; EAIE, 2022; McDonald, 2015; Nikula, 2019). Many international education conferences across the globe have also increasingly included presentations related to environmental and social sustainability issues. At the same time, sustainability-related bottom-up initiatives around specific sub-topics have emerged. For instance, the Climate Action Network for International Educators (www.canie.org) advocates for climate action (CANIE, 2022). A number of other networks/associations contribute to sustainability work alongside individual higher education institutions and other education abroad providers, who have acted to align their institutional objectives and strategies with the U.N. SDGs or taken other action to address some of the existing issues. For instance, a growing number of institutions have started to measure their greenhouse gas emissions, while some have also made a commitment to reduce and offset their education abroad-related emissions (Redden, 2019).

Despite all these laudable initiatives, the implementation of sustainability principles is still in its infancy. For instance, a sector-wide sustainability awareness and performance survey conducted by Bound International and

Earth Deeds which captured 77 higher education institutions and study abroad provider organizations from 13 countries, showed that sustainability performance is neither consistent nor particularly high within the field (Bound International, 2021). While not a representative sample of the more than the estimated 20,000 HEIs in the world, the data were retrieved from a good cross-section of institutional and organizational types, including public universities, private universities, private study abroad organizations, and community colleges. Some notable statistics from the survey included the fact that only 22% of survey respondents indicated that environmental sustainability was explicitly embedded into organizational mission, goals, and objectives and only 17% explicitly embedded it into their organizational policies. Furthermore, 68% of respondents do not track Scope 3 emissions from student, faculty, or staff travel abroad and most institutions and organizations do not include the terms "Sustainable Development Goals," "Climate Change," "Environmental Sustainability," or "Social Sustainability" into any education abroad program titles or descriptions. The drivers for action are clear, but we need a radical change in the way we think about and design education abroad opportunities. At the same time, the complexities and trade-offs need to be considered carefully before implementation (Nikula and van Gaalen, 2022). Examples from programs/courses, such as those shared in this book, are valuable resources for institutions considering similar initiatives.

In this book, we do not rely on a single sustainability definition. Rather, each author details their own sustainability lens whether they are referencing environmental and/or social sustainability questions. This is done, in part, due to a lack of formalization and consistency regarding sustainability within the international higher education context to date. However, formalization and consistency should be considered important endeavors with strategic planning within higher education institutions and other study abroad organizations henceforth. In particular, HEIs and affiliated partners should likely consider how they are positioned to make an impact on the climate crisis and what they want student learning and research-oriented outcomes to be before creating a working definition.

Two main approaches are used throughout this book. First, some of the chapters are exploring the ways in which the negative impacts (i.e., the "footprint") related to education abroad could be minimized. Second, a number of chapters are exploring the ways in which education abroad can have a positive influence (i.e., the "handprint"). The former approach includes different ways of reducing education abroad sector's negative impact on the planet and/or on our communities. For instance, the carbon emissions related to international education mobility are considerable, and hence

highly problematic, when considering the urgent need to decarbonize our economies (Shields, 2019). The latter approach focuses on how to maximize the positive handprint of the education abroad sector by influencing stakeholders, such as students and local partners involved in education abroad programs. These two approaches are not exclusive, but, on the contrary, the successful transitions toward a sustainable education abroad era requires that both are addressed simultaneously.

Chapters

The chapters in this book were written by a group of international education professionals and researchers from a number of organizations and countries. All authors contribute by providing their unique knowledge about their chosen topic discussing different intersections of sustainability and education abroad. This book is structured as follows: Sustainability in the Curriculum; Sustainability and the Student Perspective; Sustainability in Administration; Sustainability and Program Design; and Travel and Greenhouse Gas Emissions. Many of the authors discuss and explore issues, solutions, and perspectives that cover more than just one of the themes mentioned above.

Sustainability in the Curriculum

Chapter 2 by Tammy Shannon, Ketja Lingenfelter, and Robert Shannon explains how sustainable practices have been built into the Penn State university's study abroad curriculum in Costa Rica. The authors present feedback from alumni, students, and faculty to discuss best practices and how the education abroad experience has impacted students and graduates. In Chapter 3, Linda Beck and Mark Pires examine a faculty-led travel course in Tanzania focused on responsible tourism. This chapter provides an overview of the 2-week experiential learning excursion encouraging students to develop informed understanding of the impact tourism has on the natural environment, livelihoods, and economic development. Chapter 4 by Derek Martin and Molly Roe discusses how institutions can incorporate the U.N. SDGs to short-term faculty-led education abroad programs. The authors provide examples from a faculty-led program "Greek Culture: Ancient and Modern" offered by Susquehanna University.

Sustainability and the Student Perspective

In Chapter 5, Shayle Havemann and Cynthia Arochi-Zendejas share their insights into how virtual programs, when carefully planned, can be used

to promote equality in North–South partnerships. Their chapter includes small scale survey and test data from students who have completed a Global Sustainable Development virtual exchange program and the students themselves were based in the Southern and Northern Hemispheres. Chapter 6 is co-authored by Rebecca L Farnum and her students Kahsenniiostha Jacobs, Courtney Jiggetts, Annabel Lassally, and Elias Mittelstadt. This chapter provides an insightful reflection on the value and potential pitfalls of experiential sustainability-focused learning abroad, based on the example of a 10-day field seminar organized in Northern Europe.

Sustainability in Administration

Chapter 7 is based on a case study of University of Auckland in New Zealand. The authors, Ainslie Moore and Brett Berquist, examine how a university's international education office can collaborate to influence and develop a sustainability agenda. They present a number of ways international offices can take sustainability action both within and beyond the university. In Chapter 8, Anne C. Campbell and Thi Nguyen investigate the topic of climate change by analyzing the practices and aspirations of those working in the field of international education. The authors discuss the different types of action international education professionals engage in both their professional and personal lives, and the type of organizational and sector-wide leadership that is called for. In Chapter 9, Julie Ficarra and Melissa Topacio Long challenge some common education abroad practices. The authors discuss the value of using a decolonial lens to analyze education abroad programs based on their learnings from case studies in Costa Rica and in Morocco.

Sustainability and Program Design

Chapter 10 by James M. Lucas, Amy Butler Kennaugh, and Opal Bartiz presents the case study of Michigan State University. The authors discuss the university-level approach to sustainability as well as unit-level structures and the delivery of a specific program. The authors use SDGs to explore these different levels, highlighting the ways in which carefully designed education abroad programs can be valuable learning activities with potential long-term benefits. In Chapter 11, Miguel Karian presents a Sustainable Global Stewardship framework to guide the design and implementation of transformative education abroad. The author presents primary data from education abroad participants in Costa Rica to indicate how the offered learning opportunities can improve student learning and encourage sustainable behaviors.

Travel and Greenhouse Gas Emissions

In Chapter 12, Stephen Robinson, Christina Erickson, and Tony Langan discuss the climate impact of U.S. education abroad. The authors calculate the carbon footprint associated with education abroad-related overseas travel before discussing potential solutions. Chapter 13 further explores education abroad-related emissions. Daniel Greenberg discusses the ways in which these emissions ought to be measured, reduced, and priced. Then, a new carbon tax scheme is discussed, including how it would eliminate some of the challenges related to more commonly used offsetting practices.

Finally, Chapter 14 by the editors explores how, collectively, the chapters in this book fill a clear void by exploring a diversity of issues and solutions pertinent to the intersection of study abroad and sustainability.

Final Thoughts

This volume compiles in-depth knowledge about the intersection of sustainability and education abroad in a book format. Readers are offered valuable insights into different levels, including sector-wide, institutional, program, and curriculum, that they can use to reflect on practices in their own international education contexts. We believe this book will become an important resource for practitioners, researchers, and policymakers and helps the field to transform the way in which we design and conduct our education abroad activities across the globe.

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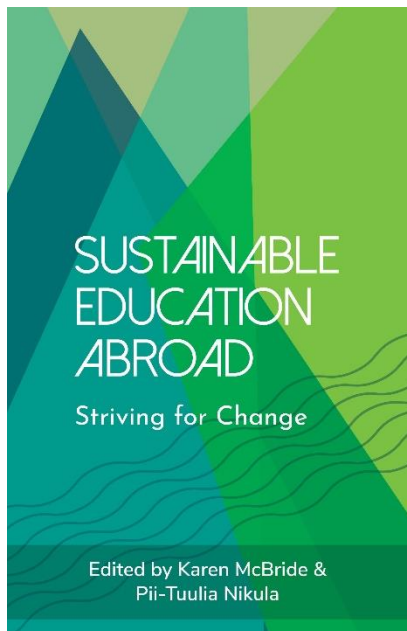
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Amplifying Sustainability Initiatives Across Campus and Beyond: A New Zealand Case Study

Ainslie Moore and Brett Berquist

Whāia te iti kahurangi, ki te tuohu koe, me he maunga teitei.
Seek the treasure you value most dearly; if you should bow your head, let it be to a lofty mountain.
—Maori proverb

The international education profession encourages travel at its core. Given this and the consequent climate impact of many thousands of people traveling the world for education, taking action on climate and sustainability can be a daunting concern. The University of Auckland, in Aotearoa, New Zealand, serves as a case study providing a range of ideas for readers considering how to increase their own efficacy in sustainability initiatives across campus.

Contributing to the achievement of the United Nations Sustainable Development Goals (SDGs) requires action from every part of the university, in every aspect of its work, from its leadership to its students. Sustainability is no longer an optional extra for how universities fulfill their core research, teaching, and engagement missions. This is especially true for university staff involved in international education, given the carbon-intensive nature of our work.

Partnerships and collaboration are central to how the University of Auckland International Office (IO) engages stakeholders on and off-campus. Our ability to achieve student recruitment targets, deliver excellence in student programming for students in New Zealand and for those that we send abroad and to engage with our communities is almost always dependent on other offices within the University or upon external partners. By acknowledging how partnerships contribute to our achievements, the International Office seeks to amplify our impact through a collaborative approach. This approach does not negate the need to pursue impactful changes within our responsibility but rather acknowledges that acting alone or solely in areas of our responsibility is not sufficient.

Student Perceptions

How a university presents its sustainability credentials to the world is becoming increasingly important to prospective students when choosing where to study (IDP Connect, 2020; QS, 2019; Times Higher Education, 2021b). In the Auckland context, the establishment of student groups (Generation Zero, P3 Foundation on Campus, the Sustainable Future Collective) and global student movements (DivestED) tell us that many students now expect institutions to operate sustainably, whether this is through specific actions such as divestment of fossil fuel shareholdings or more general sustainable behaviors. But how important is sustainability in determining student decision making relative to traditional drivers such as quality, location, and price?

There have been three recent, large-scale student surveys exploring this topic. While results have been mixed, it is evident that a proportion of international students are interested in a university's sustainability credentials when choosing where to study.

The QS University Ranking System conducted the Environmental Concerns Survey in August 2019, gathering responses from more than 3700 prospective students considering study in the UK, Australia, Canada, or the United States. Key findings from the study were that while most student respondents considered universities to be either very environmentally friendly (33%) or somewhat environmentally friendly (49%), almost all (94%) agreed that universities could do more to be environmentally sustainable. Over half of the respondents would like to learn about sustainability through extracurricular activities by linking coursework or dissertations to the issues or through placements or work experience. Specifically, 43% said they would be much more likely to choose a degree if it taught them how to reduce their environmental impact.

With respect to how important this was relative to other factors driving student choices, in April 2020, an IDP Education (a sizeable international student placement agency) survey (IDP Connect, 2020) with nearly 7000 respondents asked students to share their reasons for choosing a study destination. While some students selected "approach to sustainability and climate action" ranging from 3% for students heading to Canada and 6% for New Zealand, it was well behind commonly cited drivers, including quality and cost.

More recently, a March 2021 Times Higher Education survey (Shepherd and Tweddle, 2021) attempted to measure the student decision-making hierarchy. In framing the questions, a sustainable citizen was described as someone who takes responsibility for living their own lives in a sustainable manner. In this survey, 9% of international student respondents rated a university's commitment to and reputation for sustainability as the most important factor when choosing where to study—higher than its location or the quality of its teaching and research. We should consider this result cautiously as this survey did not include students from China, the single largest source market for international students. Further, the survey was conducted by Times Higher Education ahead of the release of its impact ranking, making it challenging to control for bias in the instrument given that students were asked to consider the relative importance of a university's sustainability practice in the context of a survey on impact (rather than the context of safety or cost, for example). These caveats aside, the most noteworthy takeaway from this survey is that 9% of surveyed students rated sustainability as the most important factor for choosing a university over and above the usually stated factors of quality, cost, and location.

We know that rankings are a driver of student choice. Still, there are a plethora of different rankings available, and it can be hard to believe that most students are savvy enough to sort through which are the most reputable. In the Times Higher Education survey mentioned previously, 75% of respondents indicated that they were aware of the SDGs. When asked, "which in your opinion are the highest priority goals?" students indicated SDG 4: Quality Education, SDG 13: Climate Action and SDG 2: Zero hunger. Interestingly, students rated SDG 17: Partnership for the Goals as the least important of the 17, potentially indicating that while students are aware of the SDGs, they may not have deep knowledge of how individuals and organizations around the world are working together to achieve them.

What these various student surveys tell us is that for a proportion of our students, sustainability is becoming increasingly important, and that how universities engage with sustainability and present their environmental

credentials will be a factor (for some a significant factor) in where they choose to study. It reinforces the need to act, to communicate on that action, and it empowers the change agenda knowing that change has the added benefit of increasing attraction to students.

The International Office

The International Office at the University of Auckland has responsibility for international relations and collaborative partnerships, learning abroad, offshore branding and for international student recruitment of both full degree and non-award students.

This work contributes to diversity on campus, enables global citizenship and collaborative research, teaching, and scholarship while contributing to tuition revenue. But it historically has done so at a considerable carbon cost.

While international education brings many benefits to individuals and communities, including to universities, an intrinsic aspect of international education (pre-Covid) has been travel. In the case of Auckland, our location on a cluster of islands deep in the South Pacific means almost all international travel is air travel. Pre-Covid, there were over five million globally mobile degree-seeking students worldwide (note this figure excludes learning abroad within the degree). The CO_2 emissions associated with this activity, a significant proportion caused by air travel, are estimated at at least 14 megatons per year (Shields, 2019).

In addition to student travel, there is significant staff travel associated with student recruitment and global engagement activities, also contributing to the carbon footprint of international education. This travel involves staff participation in student recruitment fairs and meeting with agents and partners offshore. The student recruitment work of the International Office is a driver of carbon costs for the university and as such, we should consider our contribution to reducing emissions.

In late 2019, the International Office commissioned Pomegranate Global (a consultancy expert in climate action and international education) to help identify opportunities to strengthen our response to the climate crisis as we sought to champion a green internationalization approach to our activities. The report looked solely at the actions the International Office could take to mitigate the climate impact of our work in recruiting and marketing to international students, running inbound and outbound learning abroad programmes and global partnerships.

The report identified two key areas where the International Office can directly contribute, notably reducing air travel and encouraging the use of

more sustainable modes of transport (not just for local travel, but also international travel for staff and students).

Some specific recommendations included continuing the trend to economy class travel over premium or business, reducing travel where possible, growing offshore staffing, reducing print collateral and associated shipping, and reinvesting the consequent savings in digital marketing.

Interestingly, many of the recommended changes have been embraced more rapidly than planned as the pandemic's influence impacted the office's work. In 2019, the collective international travel for the University was 132,281,943 km. The International Office traveled 2,175,701 km internationally, or 1.6% of the University's total. In 2020, international air travel altogether ceased in March and was substantively curtailed domestically. It is appropriate to note that while the International Office itself was responsible for only a tiny portion of the University's international travel, the annual movement of over 8000 international and domestic students represents a far more considerable sum of international air travel.

In 2019, the International Office printed almost 20,000 brochures and shipped them around the world. In 2020, printing ceased in February, and since then, all marketing collateral has been developed "digital first."

The impact of border restrictions and lockdowns internationally has massively accelerated the planned shift to increased virtual recruitment and digital advertising for universities worldwide. This shift is seen in the advent of webinars and conference sessions exploring the new "Edtech" products and platforms and articles in higher education (Bothwell, 2021) and international education media (Pie News, 2021), exploring the impact of the pandemic on student recruitment.

In essence, the impact of the pandemic has forced the International Office to change the way we do business. Fortunately, these changes were aligned with the more sustainable operations we were planning to phase in over the coming years. The pandemic taught us that we can change quickly if we are sufficiently motivated. The challenge will be to maintain our more sustainable practices as the world again begins to meet in person and travel abroad.

Learning Abroad

The International Office took early steps to develop a study abroad programme that brought together a range of subjects, services, and co-curricular opportunities related to sustainability and entrepreneurship under the moniker *Auckland Changemakers* and using social media

hashtags #GenerationChangemaker #GenerationClimateAction and #GenerationEntrepreneurship.

The programme sought to bring study abroad students to Auckland, house them together in a separate accommodation facility and create a small (no more than 300 students) learning community of students committed to learning more about sustainability and how they could bring about positive change. The Auckland Changemakers programme included weekend climate action and entrepreneurship workshops and a lecture series with notable entrepreneurs on progressive green technology. The programme required students to complete work ahead of the workshops to understand the size of their footprint and proactively identify ways to limit their climate impact throughout their learning abroad programme and their lifetime. In developing this programme, we considered the work of the Sustainability and Planning Offices, partnered with the Centre for Innovation and Entrepreneurship, and reached out to the community.

Unfortunately, this is one area in which the pandemic has not accelerated our progress toward change, as border restrictions and travel bans have necessitated postponing this programme until students can return to New Zealand. The recent work of The Forum on Education Abroad in publishing the *Guidelines for Advancing the UN Sustainable Development Goals through Education Abroad* (Forum for Education Abroad, 2020) will serve as a template for review of the Auckland Changemakers programme once global travel to New Zealand is less problematic. For students seeking information on engaging with sustainability while studying abroad, an Australian study abroad company, CIS Australia, has published The *Green Book* (CIS Australia, 2020), which features specific tips and resources for sustainable learning abroad.

The University of Auckland International Office committed 2020 operating funds to offset the travel of students participating in learning abroad. While we could not send students abroad in 2020, we intend to offset the air travel of students learning abroad in future years through future budget allocations.

In the 12 months following June 2020, over 400 Auckland students have participated in virtual learning abroad programming. While this is well over a thousand students fewer than participated in mobility programming during the previous twelve months, given almost no students participated in virtual programming during that period, this is a significant step. While virtual programming has the obvious advantage of reducing air travel, we also sourced several programmes that specifically spoke to developing awareness of sustainability issues. The Universitas 21 Global Citizenship programme is one

such example, and Auckland students have participated in two iterations of this programme thus far.

Importantly, in 2022 and beyond, when we can run in-person learning abroad, we will continue with virtual programming as we seek to better serve our students who have not been able to access learning abroad before now while simultaneously limiting our carbon footprint.

Alignment with Leadership

The University of Auckland Vision 2030 and Strategic Plan, *Taumata Teitei* (University of Auckland, 2021), sets lofty goals for the coming decade. The University's vision is to be internationally recognized for its unique contribution to fair, ethical, and sustainable societies. Specifically, *Taumata Teitei* commits the University to achieve net-zero carbon status and to publish meaningful metrics of the University's progress toward overall sustainability. The University's leadership has set a goal for the whole University. It expects each part of the organization to address its area of responsibility and expertise to advance this ambitious agenda.

As an international office, we have decided that we need to not just focus on the "in-house" matters of learning abroad, student recruitment and global engagement, but to consider how and with whom we might collaborate across campus to assist the university in achieving its broader goals.

In the case of the University of Auckland, and likely many similar universities, there are some apparent partners to consider who are already working to progress sustainable practices and some less obvious but potentially more impactful partners to identify. Three key internal partners for the IO are the Centre for Innovation and Entrepreneurship (CIE), the Sustainability Office, and the Planning and Information Office (PIO).

The Sustainability Office is responsible for sustainable operation practices and policy development on research, teaching, partnership, and events. The Office provides leadership, advice and expertise to staff and students and has responsibility for the University's Sustainability Policy. The previous University Strategic Plan to 2020 set a goal to reduce emissions by 15% in the 10 years to 2020. The target was achieved and following the implementation of the Responsible Development Policy in 2019 (The University of Auckland Foundation, 2019), the University also divested from its fossil fuel investments.

The Planning and Information Office (PIO) is generally concerned with data collection, performance analysis and reporting to the government. The office oversees the University's reporting strategy, analyzing information for

strategic and tactical decision-making and academic quality assurance. In the context of sustainability, they have recorded the University's progress in improving sustainable operating practices regarding climate change. The University has a range of research projects that contribute to the global understanding of sustainability. Consequently, the PIO decided to participate in the inaugural Times Higher Education University Impact rankings, which measure how universities contribute to the United Nations Sustainable Development Goals (SDGs). All United Nations member states adopted the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals in 2015. They set out an ambitious plan to end poverty, fight inequality, and build peaceful, just, and sustainable societies by 2030 (United Nations, 2015). Universities are particularly well placed to contribute to creating a sustainable future through their research, teaching and engagement activities. The Times Higher Education Impact Rankings (Times Higher Education, 2021a) have inspired greater attention to each of the 17 SDGs and provide a lens to identify areas of excellence, potential collaborators and areas of improvement.

The Impact Ranking is the first to consider how universities create impact across the SDGs. For the University of Auckland, an early participant in the rankings, we ranked first globally for the first two years and ninth in the most recent iteration. The first iteration of the rankings included over 450 universities and grew to over 1100 in 2021. The rankings aim to compare university impact in three broad areas of research, outreach and stewardship and include an overall impact ranking and rankings for each of the SDGs (Times Higher Education, 2021a). The strong results have enabled the University of Auckland and the IO to leverage the ranking in our recruitment, engagement, and research activities.

In partnership with the PIO, we have shared the work we have done to achieve this ranking. Examples of this knowledge sharing include workshops (Knowledge Exchange Workshop University of Auckland and IIT Delhi 2020) and global conference presentations (Mu, 2021) on data mining and other approaches to help universities better assemble their information and prepare a rankings submission plan. We have chosen to do so, knowing that the growing participation would eventually increase the efforts and size of the field and possibly result in a lower ranking for us. With regards to sustainability, the adage "a rising tide lifts all boats" reflects our strategy. The International Office has seen the benefit of this approach through enhanced brand and frequent recognition from leadership at other institutions reporting the usefulness and generosity of sharing our processes. This, in turn, contributes to the International Office's work in brand positioning to raise visibility which enhances partnerships and student recruitment.

For the last 2 years, the PIO has produced an SDG report (*Answering the World's Call*, The University of Auckland SDG Report 2020, 2021) outlining some of the research initiatives contributing to achieving the goals. A single annual report cannot detail every piece of relevant work but instead provides a selection that highlights the University's commitment to sustainability and our contribution to a more sustainable future for all.

In addition to rankings work, the International Office has worked with the Planning and Sustainability Offices to identify research strengths for each SDG and commissioned short videos that help to illustrate how the university is working toward each goal. These videos have featured in our sponsorship of rankings events, in student-facing exhibitions, and across the university's social media channels.

Concerning teaching and learning, the University has sought to embed sustainability across many degree programmes. The Sustainability Office has compiled a list of specific undergraduate and postgraduate courses taught at the University of Auckland related to the SDGs (University of Auckland, 2021). Specific subjects, schools and faculties are also highlighted when offering an extensive range of courses relevant to a particular SDG. This makes it very easy for prospective and current students to find courses that match their interests and discipline studies across the 17 SDGs.

In 2018, the University established a cross-faculty, multi-disciplinary global studies degree. It has been very popular with students growing to over 220 new starts in 2021. The degree includes a major in Global Environment and Sustainable Development and an expectation of learning abroad.

A specific cross-disciplinary initiative of the Faculties of Science and Arts has seen collaborative delivery of three courses (Sustainability and Us, The Sustainable Community and A Sustainable World) in an elective sustainability module for undergraduate Arts and Science students (University of Auckland, 2021).

The Centre for Innovation and Entrepreneurship (CIE), in the Business School, was established to foster innovation and entrepreneurship by providing knowledge, environment and inspiration to staff and students through experiential programmes, events and workshops. The Centre frequently incorporates the SDGs into the development of programmes for interdisciplinary groups of students. Like the Sustainability Office, the CIE has catalogued its work in alignment with each of the goals. There are well over 100 such examples, each of which features a student story. One example, related to SDG 13, Climate Action, involved over 155 Auckland students joining thousands of participants in more than 100 cities worldwide in 24-hour ideas-hack, *Climathon*, creating solutions to some of the world's

most pressing problems. This work aids the International Office in its student recruitment agenda by clearly demonstrating to prospective students the clear commitment to addressing sustainability within undergraduate teaching and co-curricular programming.

While there is an evident strength in the Faculties of Business, Science and Arts, other faculties have chosen to concentrate their efforts on research rather than teaching or grassroots initiatives to support the university-wide agenda to progress sustainability.

Regional Partnerships

One in three New Zealanders lives in Auckland, making it the only major city in the country. Auckland Council, our city government, committed to emissions reductions and joined the C40 Cities Climate Leadership Group in 2015. Strategic planning aims to cut greenhouse gas emissions in half by 2030 and reach net zero by 2050 (Auckland Council, 2020). But under our current activity, without additional action to reduce emissions, Auckland's net greenhouse gas emissions will likely rise by 19% by 2050 to 12.4 MtCO2e (Becken and Higham, 2021). In the city's planning on climate action, international students, whether short-term study abroad or here for a full degree, fall under the category of tourism for economic development and contribute to these emissions totals.

Auckland Unlimited is the economic development and tourism promotional arm of our city. The International Office works closely with the Study Auckland team that promotes Auckland as a study destination and develops extracurricular programming, support, and a range of other collaborations. At a recent workshop for the international education sector, organized by a consultancy contracted by Auckland Unlimited, we discussed the city's emissions goals and our institutional thinking and planning. Not surprisingly, participants were at different stages in their thinking on this topic, perhaps because our borders are entirely closed to non-residents at the moment. After setting the scene, explaining that tourism's share of emissions has risen to nearly 12% for Auckland, and outlining some key concepts and potential actions, the consultants asked participants to work in groups to map out a set of potential actions against a matrix of readiness (low to high) and priority (near-term 2021 to far-term 2026).

Core actions proposed for the International Education sector included:

• Understand what regenerative tourism means for your business (i.e., tourism that meaningfully improves the community and land it operates in)

- Measure, evaluate, and report on end-to-end emissions of your business and your customer
- Decarbonize the visitor experiences that you offer
- Offer net-positive visitor experiences
- Develop a carbon reporting and sustainability plan
- Harness lower carbon visitor markets (travel from nearer, stay longer, use public transport while in Auckland)
- Decarbonize your supply chain

The approach in this discussion, whereby participants placed short versions of the above actions on a matrix of readiness and timing, encouraged participants to consider taking action on concepts that might have been harder to consider at the start of the workshop.

For the University of Auckland, given our research focus on sustainability, global rankings, and the branding power that contributes to student recruitment, our discussions were at a more advanced stage than for other smaller organizations with more immediate priorities or different thinking on these issues.

Global Partnerships

Partnership beyond the university is critical for the International Office and, by extension, the University to further extend our impact and reach. In considering this, the University has selectively partnered with reputable organizations leading in sustainability initiatives or international education to amplify our work and theirs.

The University is a member of Universitas 21 (U21), a network of universities committed to knowledge sharing and collaboration across borders. While U21 has had a commitment to sustainability for over a decade, following the rise in awareness of the role of SDGs, U21 has committed to explicitly supporting SDG 4 and 17 in particular:

> *Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and*

> *Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.*

In working toward delivering these goals, U21 has launched two key programmes in which Auckland students participate:

> **RISE** (Real Impact on Society and Environment) is an international showcase of student achievement in sustainability and social innovation designed to accelerate

the scale and impact of student-led projects by connecting them with a network of experts in academia and industry.

Universitas 21 **Global Citizenship** is an online leadership development course delivered by Common Purpose, a global not-for-profit organization specializing in leadership development. Since the first course was launched in October 2020, almost 6000 students have participated, including 44 University of Auckland students.

Another example of university-level collaboration is the World's Challenge Challenge (WCC) hosted by Western University in Ontario, Canada. The WCC encourages students from universities worldwide to work collaboratively on innovative solutions to global problems while helping them develop their academic, presentation, and entrepreneurship skills. The challenges are based on the UN SDGs. The International Office partners with our Global Studies programme and the Centre for Innovation and Entrepreneurship to enable student participation in the challenge.

Sponsorship

In some cases, a partnership involves joining two or more entities of relatively equal standing, seeking to further their impact—to become more than just the sum of their parts. In other cases, one partner can leverage the reach of another to advance a message or bring attention to work important to specific audiences.

One example of partnership to increase reach is through sponsorship. The University of Auckland recently partnered with Penn State University, located in University Park, Pennsylvania, USA (a strategic partner for the University), to host the 2021 Times Higher Education University Impact Forum. This opportunity allowed us to contribute content to a significant higher education rankings conference attracting over 880 international delegates. Within the University, a focused communications campaign allowed us to bring the campus community with us in raising the profile of work across campus that addresses the SDGs. Specifically, collaborative sponsorship of such a high-profile event ensured the Vice-Chancellor's attention to this initiative, including her participation as a panellist debating the role of partnerships in delivering SDG4.

Speaking to the Impact Rankings at the Forum (Times Higher Education, 2021a), University of Auckland Vice-Chancellor Professor Dawn Freshwater said, "The rankings' focus on sustainability has become even more relevant as we consider what a post-Covid world might look like, and how we use the learnings of the past year as an opportunity to reshape economies in more sustainable ways."

While the University's leadership on sustainability was not in question, sponsoring the Summit, and asking our Vice-Chancellor to think and speak on the role of partnerships in delivering change, leverages her influence and redirects attention to this vital work.

The International Office has also sponsored the PIEoneer Sustainability International Impact Award, bringing focus to the critical work of universities worldwide in this space. We have also sought to amplify the impact of organizations working to address climate action in international education through our sponsorship of the CANIE podcast, Climate Dialogues. Simultaneously, the university gains some halo effect in lining up alongside people working for climate action outcomes in international education (CANIE, 2021).

Conclusion

The University of Auckland considers that action on sustainability to be no longer an optional extra for how universities fulfill their core research, teaching, and engagement missions. This also holds true for international education. The conflict between our carbon-intensive sector and our societal and institutional aspirations to improve life on our planet has risen to the forefront.

A clear position on sustainability in international education is no longer a "nice to have." Our students are increasingly demanding that we show our sustainability credentials and address the climate emergency and sustainable development. Such is the increase in interest from students that universities who fail to act risk being left behind. Alternatively, universities who seize the moment stand to benefit in advancing their student recruitment, partnerships and branding agenda.

The current crisis is an excellent opportunity to regroup on various fronts, including addressing our carbon footprint when travel resumes, redefining how we recruit students to scale up less carbon-intensive digital solutions and scale back printing and travel. It is an opportunity to increase focus on impactful programming for inbound and outbound learning abroad as well as teaching and learning more broadly.

Partnership is essential if we are to expand the impact of our efforts to address sustainability. As we have illustrated, the international office can be a significant driver for change in the university's eco-system and can exert influence within an institution's strategy and agenda. Not just in its areas of responsibility but also through collaboration on campus, in its region and globally.

We recommend readers consider the potential to apply a sustainability lens to their own activities in international education and learning abroad, but also to identify potential collaborators on campus and more broadly with whom you could collaborate to enhance your own initiatives or theirs.

Failure to act may leave your office or your institution isolated from the field as others move on. Failure to communicate that action to students may see them choose to study elsewhere with institutions better able to demonstrate their sustainability credentials.

Applying a sustainability lens to every aspect of our operations, especially where self-interest dictates that we do, allows us to truly amplify our efforts, to be worthy partners to university colleagues and off-campus partners alike. It is what our communities will expect of us, what our students will demand of us, and our obligation to use the privilege of our position to drive change across all our communities.

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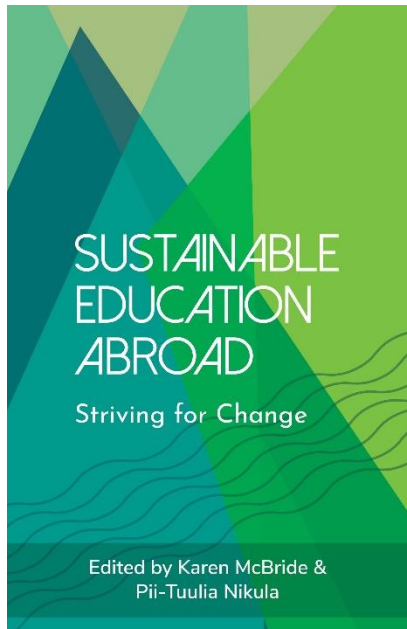**Authors:** Anne C. Campbell and Thi Nguyen
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8

Climate Action and Aspirations for International Education Professionals

Anne C. Campbell and Thi Nguyen

Introduction

Over the past decade, climate change has become one of the most pressing global issues facing our planet. At the same time, international student mobility continues to be a significant focus of higher education, with education abroad and exchange programs continuing remotely alongside the travel restrictions imposed by COVID-19 (Levy, Newman, & Wilwohl, 2020). Given these two forces and the assumption that international travel for educational purposes is showing signs of a rebound after the global pandemic, international education professionals have been directing more attention toward the environmental impact of their profession.

This dialogue has opened a series of critical questions about the relationship between international education and climate change, such as how the profession of international education is taking action, to what extent international education is dependent on flying (and hence the production of carbon emissions), and how professionals can tackle climate change issues and promote long-term sustainability efforts. Specifically, the questions that guide this chapter are:

- In what ways do international education professionals address climate change and sustainability in their personal and professional lives?

- What gaps do they see in the field of international education that prevents climate action, and how do they aspire to make change happen?

These questions serve the purpose of investigating the current actions and aspirations of key players in international education. We focus on international education professionals because they manage a diverse range of programs and thus understand the landscape of international education across multiple stakeholders and levels. In addition, they have some capacity to make changes across programs and influence larger systems. Moreover, these professionals respond to student concerns, including those about the influence of their mobility on the planet. They also have a crucial role in program evaluation, meaning that they can consider how and when to measure the environmental outcomes of participation in international education.

For our research, we conducted interviews with 17 individuals who were working in international education or had extensive experience in the field to better understand their current practices and aspirations in the field. This research is intended to better understand the ways that international education professionals act – and how they aspire to act – in response to climate change. We organized our findings across three levels of influence: the personal level, the organizational level, and the sectoral level. These findings aim to contribute to our understanding of the benefits and conflicts of international student mobility with regard to climate change, calling for bolder, more decisive, and more collective action within the field, especially at the organizational and sectoral levels. The chapter also includes recommended practices of sustainable programming and climate activism for international education professionals to consider and implement.

Background: The Environmental Footprint of International Student Mobility

International student mobility in higher education worldwide has typically prioritized the needs and goals of individuals and institutions. However, there is a growing awareness of its environmental impact as well as the effort required to generate a calculation of the greenhouse gas emissions from students traveling abroad. Currently, overall air travel constitutes 2% of the world's annual carbon output (Terrenoire, Hauglustaine, Gasser, & Pananhoat, 2019). While this number may not seem like a significant portion, we also know that air travel is likely to continue to grow, as it has been predicted to consume at least 5% of the world's remaining carbon budget by 2050 (Center for Biological Diversity, 2021).

To pursue educational opportunities overseas, students continue to travel by plane, and the demand for educational travel has been growing rapidly – at least before the COVID-19 pandemic. As an example, 5.6 million students were enrolled in tertiary education outside their country of citizenship in 2018, which is more than twice the number recorded in 2005 (OECD/UIS/Eurostat, 2020). In the United States, the Open Doors report shows that nearly 350,000 US students studied abroad during the 2018–19 academic year, which is more than double the number in the early 2000s (Institute of International Education [IIE], 2020). Of all the experiences undertaken by US students, 67.4% were to Europe and Asia, which required long flights that significantly inflated the students' carbon footprints (IIE, 2020). In addition, 65% of all flights were for short trips (8 weeks or less), which, in this chapter's context, raises concerns about whether the educational value of these experiences was worth the environmental cost that they carried (Rausch, 2019).

Worldwide, it has recently been estimated that internationally mobile students put out as much carbon through air travel as the countries of Jamaica, Tunisia, and Croatia combined (Climate Action Network for International Educators [CANIE], 2021b; Rumbley, 2020; Shields, 2019). However, this estimate has not taken into consideration travel undertaken by institutional personnel supporting international student mobility programs. To be more specific, university professors and staff members, especially those working in or closely with the education abroad sector, also traveled extensively pre-COVID to recruit overseas partners, attend conferences, conduct research, teach courses, or supervise students enrolled in education abroad programs (Gill, 2021). All these activities are essential elements to facilitate intercultural learning, institutional reputation, and diplomatic relations, yet they are harmful to the well-being of our environment.

These figures, along with the devastating effects of COVID-19 and a rise in natural disasters around the world, have inspired a critical conversation within the international education profession, questioning whether the traditional idea of international student mobility, which serves human-centric purposes, could fit well with the growing need for environmental responsibility. This emerging discussion has also involved talking about climate change more broadly as a social justice or humanitarian issue that the profession must assume a role in mitigating. This part of the discussion often references the disproportionate impact that climate change has on vulnerable populations in different corners of the world, such as Indigenous peoples, people with socioeconomically disadvantaged backgrounds, and people located in high-risk regions – even though they generate less pollution and are the least responsible for the problem (OECD et al., 2002).

Key Terms

- *Environmental sustainability:* The idea of preserving environmental resources to meet our own needs without compromising the ability of future generations to meet their own needs (United Nations [UN], 2021). In the context of this chapter, we do not differentiate among the various practices of environmental sustainability nor judge whether some are better than others. The goal is to determine whether international educators are taking action to prevent the warming of the planet.
- *International education*: A field involved in facilitating and supporting the migration of students and scholars across geopolitical borders or the knowledge and skills resulting from conducting a portion of one's education in another country (The Forum for Education Abroad [The Forum], 2011, p. 11). In this chapter, we focus mostly on students who cross national borders.
- *International student mobility*: The physical movement of students across national borders, often over long distances, for the purposes of attaining or advancing their education.
- *International education professional (also known as an international educator)*: A staff member who is in charge of a component of a program that promotes international student mobility. They typically work for educational institutions, government agencies, or independent service providers. Examples of roles include education abroad advisor, international scholarship manager, exchange program coordinator, international student advisor, international admission officer, ESL instructor, curriculum designer, or analyst of non-US educational credentials (The Forum, 2011, p. 11).

Literature Review

The benefits of international education are often measured at the individual level, in ways that capture participants' growth in skills, knowledge, and attitudes. For example, outcomes of short-term study abroad typically fall into three main categories of positive outcomes: cultural, personal, and employment or career outcomes (Roy, Newman, Ellenberger, & Pyman, 2019). Likewise, positive aspects for participants' families, institutions, and communities are also noted, especially how international mobility influences home and host universities (Knight, 2012). The idea of sustainability in international education has been explored, highlighting multiple definitions of sustainability. Examples include environmental sustainability, or protecting the planet; program sustainability, or the structures needed to carry out a quality experience over time; and economic stability, including government

funding and fundraising (see further discussion at Campbell, 2021). In addition, sustainable practices in international higher education are managed differently by institutions. In a recent study of 10 higher education institutions globally, distinct approaches for addressing climate change were profiled, ranging from working with local municipalities to develop more green space to ambitious strategies to be carbon-neutral within a decade (McCowan, Leal Filho, & Brandli, 2021).

Tying these threads together, several organizations have examined the intersection of international education and sustainable development. For example, The Forum (2021) recently examined the UN's Sustainable Development Goals for international education program design and implementation, and major international education conferences have focused on sustainability themes, including The Forum's 2020 annual conference. In addition, CAN-IE has held an international conference on climate justice and international education, produced a series of podcasts, and published lists of resources for climate action (CAN-IE, 2021a). These efforts, among others, highlight the importance of a global agenda for sustainable development, which includes international education. These efforts also tie together specific SDG Targets that focus on international student mobility (Target 4.b) and education to combat climate change (Target 13.3).

However, international education's contribution to the rise in greenhouse gas emissions and the field's total impact on the environment are not fully known. Shields's 2019 study, for example, notes that with an increase in students seeking international study opportunities abroad, there is an increase in greenhouse gasses. Shields also noted that over time each flight is emitting less carbon. However, the total number of students traveling internationally (before COVID-19) was increasing annually.

Of course, the field's carbon footprint is far greater than just internationally mobile students flying. As previously mentioned, program staff and faculty members regularly travel for conferences and site visits. Another factor is friends and family visiting individuals who are studying abroad (Davies & Dunk, 2015). Additionally, there is the general environmental impact of local travel, meals, safe drinking water, and waste generated through these practices. However, acquiring an accurate footprint is very complicated. For example, some host destinations have much lower emissions than the students' home countries (Shields, 2019), and some university students show pro-recycling and eco-friendly purchasing behavior while traveling (Han & Hyun, 2018).

At the same time, the benefits of international education may be seen as "worth" the carbon costs. International education has been shown to teach

valuable lessons about global interconnectedness and one's responsibility to the planet (Wynveen, Kyle, & Tarrant, 2012), especially related to communities' vulnerability to climate impacts (Islam & Winkle, 2017) and examples of sustainable lifestyles (Tarrant, Rubin, & Stoner, 2014). Moreover, education abroad builds international partnerships, resulting in networks to address the world's most grueling problems, including climate change. Dvorak, Christiansen, Fischer, and Underhill (2011) call international student mobility and environmental preservation "a necessary partnership."

Building on this idea of a necessary partnership, this study focuses on international education professionals to better understand what is being done – not just discussed – to address climate change. Moreover, we examine what these professionals aspire to do and the obstacles in their way to increasing sustainability within international education. We close the chapter with their recommendations to fill the gaps between current practice and future approaches.

Methods

This is an exploratory qualitative study of 17 international education professionals. The goal was to learn more about their current practices, collect their hopes about the future of the field of international education, and better understand their perceptions of the barriers between these aspirations and professional realities. This study aims to contribute to the larger goal of identifying opportunities and challenges for the field of international education in reducing its carbon footprint. The study was reviewed and approved by the Middlebury Institutional Review Board (IRB). It is worthwhile to note that the study's goal was *not* to map a comprehensive overview of how professionals are responding to climate change in their personal and professional lives.

Participants were selected to be part of this study because they were either alumni or current graduate students of the international education management master's program at the Middlebury Institute of International Studies (MIIS), located in Monterey, California, USA. As MIIS is a professional graduate school, all participants had between 2 and 10 years of work experience in the field of international education. Current and previous employers of participants were US-headquartered higher education institutions, K-12 international schools, third-party program providers, and nonprofit organizations. At the time of the interview, most were holding entry- and mid-level positions in program management and student advising. However, not all participants were actively working in international education. Notably, three had recently been laid off due to COVID-19, and one chose to take a break from employment

for other reasons. Given such circumstances, it is also worth acknowledging that many participants had experienced emotional stress associated with the uncertain future of international education. This context played an important role in helping them step back and examine their profession's position in relation to the larger global issues, including climate change.

Interviews were conducted from early August to late October 2020 during the COVID-19 pandemic; each was led by one of the two investigators and completed *via* Zoom. Each semi-structured interview ranged from 60 to 90 min. Interviews were recorded and transcribed. Following each session, the interviewer wrote a memo to summarize the conversation. After finishing all interviews, the investigators authored a comprehensive memo noting trends in the data. They shared it with interviewees for additional input or ideas to increase the validity of the findings.

Based on the comprehensive memo, a codebook was designed. Using Dedoose, thematic analysis was conducted to better understand current practices and aspirations. The findings were then organized into three levels: individual, organizational, and sectoral. These are in line with common frameworks for understanding perceived impact, both within international student mobility programs (Mawer, 2017) and transformations needed to address climate change (O'Brien, 2018). This three-level framing not only goes beyond summarizing the findings but also illuminates different ways that professionals perceive a change in international education: what actions – real and aspirational – can be taken at each level, and how these levels can work in tandem.

In the findings section below, we highlight the perspectives of 17 international education professionals to gain deeper insights into how they act and aspire to act to contribute to climate change prevention in their work. To illustrate the points and provide meaning to our interviewees' experiences, we provide a few direct quotes.

Findings

As noted earlier, the main findings call attention to the actions and aspirations of international education professionals when it comes to addressing climate change across three levels: individual, organizational, and sectoral. The first level is the individual level (or micro level), where individuals take initiative to tackle challenges in their personal lives. The second level is the organizational level (or meso level), where collections of individuals are working together to bring up the problem within their immediate professional community. The stakeholders at this level include educational institutions and organizations, departments, and offices – often smaller units of

larger systems. The impacts here are typically on the institutions themselves. The third level is the sectoral (or macro) level. This level encompasses governmental and non-governmental agencies, commissions, and professional associations that possess national, societal, or global influence.

Individual-level Actions and Aspirations

At the individual level, we found that all our interviewees both wanted to contribute to environmental conservation efforts and were engaging in daily environmentally responsible habits. Interviewees reported that many of their actions matched their aspirations for what individual international education professionals would do to reduce their carbon footprint – such as those listed below, like recycling. However, they reported having few strategies to influence policies and practices at their workplaces.

On a separate note, many actions and aspirations at the individual level were not necessarily linked to reducing the environmental impact of international student mobility. Nevertheless, they demonstrate a will among international education professionals to take action, even in the smallest of ways, to live more sustainably. Understanding what is happening at this level helps envision the collective change that international education professionals could create when they are supported and connected by a system.

Interestingly, five interviewees reported having become more intentional about recycling, sorting trash, composting, eating less meat, and using public transportation *because* of their education abroad. Respecting and learning eco-friendly lifestyles from host countries, such as Japan, Canada, Switzerland, and France, motivated them to care more about the environment after they returned. One interviewee observed an increased interest in youth-led environmental projects in China, their home country, thanks to the advocacy efforts of education abroad returnees.

On the contrary, several interviewees reported seeing, over time, the inherent paradox between international student mobility and the emerging movement toward sustainability. For example, one interviewee reported feeling conflicted about the act of flying Westerners to "explore nature and green living" in secluded, less industrialized regions of the world, suggesting this was exploitative and counterproductive to the intended learning outcomes. This response illustrated a conscious effort on the part of the interviewee to connect their work to social justice and humanitarian issues.

Despite having been motivated to critically examine their everyday decisions and commit to climate action as individuals, interviewees did not feel confident that their actions were enough to make a significant impact. This

doubt was due to numerous factors. In many ways, they lacked the knowledge and social support to advocate for personal actions on a larger scale. For example, a few interviewees mentioned having been discouraged when they found out that most items in their recycling cans would not get recycled because there would always be trash-sorting rules that they did not know about or did not practice correctly. They questioned whether they were helping or "just making things worse".

Additional challenges that came up included gaps between some sustainable initiatives and the interviewees' personal circumstances and beliefs. Some interviewees reported participating in or initiating discussions on climate change in their communities but were unable to settle on any productive or mutually agreeable plans. For example, according to one interviewee, while installing solar panels on campus buildings or residential homes sounded good in theory, it cost a lot of money and would be largely impractical for people living in their area. One other interviewee suggested that since international educators had historically come into their profession as strong advocates of travel, relationship-building, and immersive learning, the idea of preserving the environment remained left out, making it extremely difficult (and somewhat threatening) for them to tackle climate issues head-on in their workplaces.

Not to mention, while all interviewees agreed that education abroad should assume a role in mitigating climate change, most did not believe that this duty entirely rested on their shoulders. University administrations, transportation companies, environmental organizations, and government entities were among the many stakeholders whose financial, ideological, and resource support was identified by our interviewees as essential to make international student mobility more ethical for the planet.

One interviewee, who advised students in STEM study abroad programs at a public university on the East Coast, illuminated the gap between their personal and professional actions, stating:

> I recycle, use bar soaps, bring shopping bags, and bike to places whenever I can [...] But I've never been expected to advise study abroad students on protecting the planet while abroad because their learning, development, [...] equitable access to resources matter more, so it doesn't feel like it's my call. [...] We're too small of a factor to make a significant difference anyway. It's the corporations, the airlines, the industrial world that should change the most.

Overall, findings at the individual level signify that interviewees take initiative in caring about the environment and are capable of becoming role models for students. However, the lack of collective language and protocols supporting sustainable programming inhibits progress in the professional context.

Organizational-level Actions and Aspirations

At the organizational level, many interviewees reported having attempted to influence their organizations by initiating or expanding on discussions regarding international education's impact on the planet. Interviewees aspired to contribute more to the integration of environmental justice topics into program and curriculum development. However, they expressed frustration toward their organizations' lack of clear and consistent commitment toward climate change.

During many interviews, examples of education abroad programs addressing climate change were reported as a potential way to support sustainability goals. These included both "green" education abroad programs – programs that had aimed to raise awareness among participants of sustainability in their marketing and recruitment materials (e.g., the teaching of eco-friendly habits in host countries during pre-departure orientation sessions) and those that incorporated environmental education as a learning outcome (e.g., learning about climate refugees in Peru). Several other interviewees also mentioned campus-wide efforts made by their institutions, such as composting, reducing paper use, and developing comprehensive shuttle networks to decrease energy consumption from student commuting.

However, some interviewees were frustrated that supervisors and organizational leaders were not doing more to overcome the day-to-day, business-as-usual practices, step out of their comfort zones, and push for a more permanent transformation. Competing priorities, such as managing finances, budgeting time, and addressing demands from students, parents, and partner institutions, were mentioned as major obstacles. They believed that leaders at their workplaces should strive to avoid treating sustainability goals as an afterthought or a superficial label.

A few interviewees shared stories of hesitation from faculty members leading education abroad trip to incorporate sustainability into their syllabi. Others expressed concerns about "greenwashing," which had allowed institutions and organizations to create a false impression of commitment to sustainability while ignoring their role in contributing to greenhouse gases. For example, one interviewee, who recruited students for a highly reputable study abroad program provider in the Midwest, said,

> Charging students a carbon offset fee might look good at first glance, but in the end this practice can't ease the inevitable environmental burdens [that such programs imposed] on host destinations. Not to mention, it could even exclude economically disadvantaged participants and exacerbate the inequitable access to study abroad that we are already dealing with.

Another intriguing point that some interviewees suggested was that pressing concerns, such as responding to COVID-19 and racial inequity in international education, had received greater attention recently, leaving climate change on the back burner. Furthermore, interviewees also reported that their offices did not make a connection between these pressing issues and climate change. However, interviewees hoped that organizations would gradually renew attention to climate change and that social justice and environmental sustainability could be combined through international education to raise awareness of both in tandem.

Professionals in this study were also keen to encourage education for sustainable development as part of existing programs. More specifically, they believed that sustainability should be a mandatory aspect of program design (e.g., having students walk, bike, and carpool while abroad) and of the intercultural curriculum (e.g., having students observe how local communities respond to various environmental needs). Interestingly, professionals put hope in returnees, believing that students could "pay it forward" by sharing their transformative education abroad experiences and generating impact at home after program completion. Many also believed that students should be allowed to take action through relevant campus engagement activities or leadership roles.

Sectoral-level Actions and Aspirations

At the sectoral level, interviewees stated that although they were very much aware of the responsibility of international education to the environment, they had seen – at the time of the interview in 2020 – little empirical evidence on how the field was adequately addressing climate change. In other words, interviewees had a lot of questions but few answers. (One promising resource that was mentioned by several is CAN-IE, which was recently launched at the time of the interviews.)

Nevertheless, they remained hopeful for future leadership and quality resources. Many asked for methods and reference points to measure greenhouse gas emissions from their own and their students' travels so that they could better grasp the scope of the problem. Moreover, they wished that international education association leaders would take a bold and decisive pro-environmental stance. From their perspectives, this stance meant discouraging excessive air travel and setting up clear, well-informed, and universally agreeable guidelines to incorporate sustainability considerations into current program and curriculum design practices.

An additional suggestion was for international education to partner with other industries for a larger impact. Notably, one interviewee spoke of students as long-haul flyers who, collectively, could influence airlines to develop greener air travel. They also spoke about other ways that international education professionals could be "change agents" in promoting cross-disciplinary sustainable development, given their significant contributions to – and frequent interactions with – tourism, business, diplomacy, information technology, social good, and many other sectors. One interviewee, who designed and assessed intercultural exchange programs for a community college on the West Coast, said,

> Technologies would be needed. I think virtual programs can be successful [...] It's a great way to make students of different backgrounds more aware of international learning without physical mobility [...] We should also partner with local businesses, like hotels, that share environmentally responsible values [...] I would like to hear from the environmentalists.

Overall, the ways that international education professionals were addressing climate change at the sectoral level were aspirational and abstract, with few concrete examples. When asked for a path forward, they envisioned a cohesive system of industries, including international education, that work together to advance global climate action.

Discussion

The findings showed that the 17 international educators were taking action – or striving to take action – to mitigate the effects of climate change in their personal and professional lives. In addition, they wanted both their organizations and the overall sector to take a leadership role in minimizing the carbon footprint of student mobility activities while educating the larger community about climate change. Concurrently, interviewees perceived a large gap between these aspirations and current practices in their workplaces. They called into question the issue of "greenwashing" programs and expressed frustration at the slow pace of change. Interviewees admitted that tools tabulating the carbon outputs of individual programs would be helpful in designing more sustainable program models and guiding students toward environmentally responsible choices.

Notably, this gap between aspirations and perceptions of current practices also led interviewees to doubt the value of their work. Individuals who were making considerable efforts to address the environment in their personal lives expressed disappointment with the lack of awareness of and commitment to climate action within their organizations and the field. One

interviewee mentioned a desire to leave the field given this continuing inconsistency between personal and professional values.

At the same time, interviewees saw great potential for change, and many were hopeful that fellow international education professionals – within their organizations and across membership associations – could take bolder steps. Several saw that international education was reimagining itself due to COVID-19 and global attention to social justice, leading to a broad reconsideration of the field. Interviewees desired more conversations on these topics at their workplaces: examples of good practices, guidelines to advise students looking to study abroad, quantitative data about carbon emissions, and coordinated efforts to identify and mitigate environmentally harmful operations.

However, interviewees noted that it was not simply an issue of will. To prioritize environmental topics within international education, organizations would likely need additional resources – of time, staff, and funding. This was especially true for small organizations with razor-thin budgets due to the pandemic. Several noted that while there was a desire to address environmental topics in their curricula, practices, and strategies, their organizations had to prioritize their budgets over the planet. Additionally, interviewees reported that COVID-19 and social justice demanded immediate attention over the long-term existential threat of climate change. Moreover, other longstanding challenges, such as the rising costs of higher education worldwide and shifting geopolitical relationships, continue to be major considerations. Putting climate change at the top of the list of priorities may be difficult, especially when the field is already so disrupted by other global crises.

One final point of tension lies with the vision for international education's response to climate change. None of the interviewees cited a concrete plan or model for addressing climate change in their profession. However, they all managed to share some ideas. For some interviewees, virtual programs would eliminate inessential travel and reach more diverse participants. For others, a greener future means mobility programming with a smaller carbon footprint: fewer long-haul flights, more carbon offsets, and better conservation of resources while living abroad. Interviewees also supported the idea of integrating sustainability and environmental justice education into mobility programs to develop students' intercultural competence. Pursuing these multiple paths forward presents a growing need for additional financial and human resources.

Implications and Conclusion

For transformation in international education to responsibly and ethically address its role in climate change, various stakeholders need to each assume

a role, not only as individuals but also as collectives. The aspirations of the 17 interviewees indicate ways that the field can move forward, and additional research could expand these findings with a larger sample of professionals or expand to other populations.

In terms of practice, international education professionals are well-suited to consider a comprehensive strategy that acknowledges, mitigates, and plans for increased global warming. A quality plan would expand the data we currently have about international student mobility's influence on the planet, acknowledge its significant role in emitting greenhouse gasses, and propose concrete strategies to live with and mitigate the unequal impact of climate change on the planet. Rooted in evidence and with input from the environmental sector, a strategy could provide international educators with a blueprint for how to most efficiently run programs.

A comprehensive strategy could also have other benefits: It could provide the technical knowledge needed to make better program policies, including how carbon offsets work, how to select low-carbon alternatives to plane travel, or how to partner with local vendors to reduce waste. The strategy could be shared with other international education partners (e.g., university internationalization offices) to help set institutional priorities. Moreover, those new to the field would have a set of guiding principles, which could be updated annually. It could also provide tools like carbon calculators so professionals can measure the outlay of their programs, compare alternatives, and select low-carbon options.

Overwhelmingly, interviewees suggested that quantitative data was needed to advocate for change in their organizations, specifically data related to carbon emissions and the financial cost of green efforts. This suggestion echoes calls by CAN-IE (2021b) and others for an expansion of Shields's (2019) work about the carbon footprint of international student mobility. Herein lies an area where professional associations can aid their members in understanding the relevant science and using appropriate tools to act within their organizations.

In terms of future research, this study points to a potentially considerable gap between climate actions and aspirations in the field of international education. Building on this work, researchers could use these findings to inform a survey tool to gather data from a larger group of international educators. Recently, Bound International, a startup company that supports sustainable education programming, has partnered with Earth Deeds, a nonprofit organization that helps leaders from different sectors transform their carbon footprints, to run a global survey on the state of sustainability in education abroad (Bound International & Earth Deeds, 2021). Future findings of a survey such as this one could provide a holistic picture of current actions,

providing a baseline for future developments. In addition, a survey could identify priorities to help shape strategies, messaging, and policies. Finally, examining actions and aspirations from senior leadership – of higher education institutions worldwide, of senior international officers, and of national and international associations – is necessary.

Last but not least, for permanent change to take place, international education professionals need to closely connect their work to the broader goal of environmental justice. This will require not only considering the environment at the same level as other prominent organizational priorities – like student development and program growth – but also aligning such prioritization with an ethical vision to promote altruism and mutual responsibility worldwide. In other words, by focusing on protecting the planet, professionals can work collectively with students and faculty to address environmental problems concerning communities at home and around the world, understand their roles in perpetuating climate change, and strengthen global citizenship through international education.

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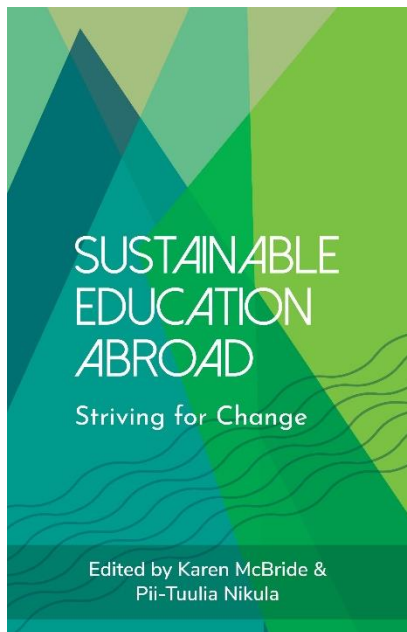
10

Making Progress toward the UN Sustainable Development Goals through Intentionality in Education Abroad: A Case Study from Michigan State University

James M. Lucas, Amy Butler Kennaugh and Opal Leeman Bartzis

Introduction

Education abroad (EA) has evolved its design, focus, and audience over the past two decades, expanding disciplines and fields of study, locations, and students served. Its programs have also become shorter in duration and inclusive of diverse pedagogies (Dwyer, 2004; Tarrant, Rubin, Stone, 2015). As EA adapts to changing realities, it faces challenges to its role within higher education (HE). Questions about equity, cost, and access, as well as the learning outcomes associated with EA, have dominated conference sessions, professional dialogues, and research (Isabelli-Garcia & Isabelli, 2020). Now, as discussions about sustainability, specifically climate change, proliferate in society, some professionals question if EA's value outweighs the cost of emissions from international flights.

Considering HE sustainability is important; however, HE dialogues often focus on campus operations and environmental issues and lack attention to social, behavioral, and curricular change (Ávila et al., 2017). This chapter considers EA sustainability from multiple organizational levels (Dvorak et al., 2011)—institutional, unit, and programmatic—to consider the potential benefits of using the United Nations' (2015) Sustainable Development Goals (SDGs) as a working definition (see list below). In the end, the authors argue that EA, when planned and implemented effectively, promotes sustainable education and offers long-term benefits that outweigh the valid concerns about emissions. To accomplish this goal, they recommend institutions focus on context, collaboration, and intentional design.

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation, and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Production and Consumption
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice, and Strong Institutions
17. Partnerships for the Goals

Background

Authors often define and operationalize sustainability and sustainable development differently based on context (Filho, 2011 & 2000; Hale, Vogelaar, & Long, 2013; Morelli, 2011; Parmentier & Moore, 2016), and this lack of clear understanding can hinder sustainability initiatives (Alkhayyal et al., 2019; Ávila et al., 2017; Cebrián et al., 2015). In some uses, writers equated sustainability with environmentalism and focused on campus operations (Ávila et al., 2017; Reid & Petocz, 2006), with more fulsome conceptions including the intersections between the environment, society, and economics

and a range of campus behaviors and activities. In academic travel and student mobility writing, many articles reviewed for this chapter, including the Climate Action Network for International Educators (CANIE) website, focused on carbon emissions and considered only one aspect of sustainability. The authors ascribe to a sustainability definition based on the UN SDGs (United Nations, 2015) that necessarily extends the dialogue beyond carbon and climate, including factors such as gender, equality, health, and education.

In HE, organizations exist to assist campuses become more sustainable (Hale et al., 2013), specifically the Association for the Advancement of Sustainability in Higher Education (AASHE) and CANIE, yet Filho (2000) found that most HE employees misunderstand sustainability. His research indicated that sustainability discussions typically equate sustainability with the environment, allude to quick fixes, and purport a belief that after teaching staff about the topic, they will be more sustainable. He and others recommend that HE institutions expand sustainability efforts to include economic and social factors, focus on behavioral changes, and move to implement *specific* tactics (Ávila et al., 2017; Filho, 2000; Filho et al., 2014; Rappaport & Creighton, 2007).

One such tactic involves reducing flights, often the largest source of carbon emissions for academic conferences (Caset et al., 2018). Although, aviation is 80% more efficient compared to the 1960s (Air Transport Action Group, 2021; Jensen, 2018), the increased number of flights equates to aviation contributing about 2% of greenhouse gas emissions and 2.5% of human-induced carbon emissions (Air Transport Action Group, 2021; Richie 2020). According to Environmental Protection Agency (EPA, 2021) data, 29% of U.S. greenhouse gas emissions come from air transit, and this sector's emissions grew more than other economic sectors between 1990 and 2019 (EPA, 2021).

Although some travel can pivot online, not all benefits are achieved in this modality, and for some academics, the travel benefits to personal and professional development outweigh the costs (Arsenault et al., 2019; Caset et al., 2018). HE professionals state that for some disciplines and research agendas, traveling to field locations is essential for their work (Caset, et al., 2018), and technology cannot replicate human interaction (Arsenault et al., 2019). They frame these interactions with peers as essential for professional growth by disseminating their work and publications and garnering invited speeches and collaborations. They also believe that traveling away from work can be refreshing and mentally stimulating (Caset et al., 2018). Finally, the benefits and costs of travel are contextual—dependent on one's geographic location, discipline, purpose for travel, and academic rank.

Some experts use carbon footprints to evaluate travel sustainability (Moldan et al., 2012; Sippel et al., 2018; Write & Williams, 2011). This method only focuses on environmental sustainability, but it suggests that aviation's emissions could be offset by an individual's decreased footprint abroad. In other terms, a student with a high footprint can travel to a locale with increased public transit and lower lifestyle emissions (Sippel et al., 2018). Alternatively, Rappaport and Creighton (2007) suggested that HE organizations create travel policies that minimize footprints by promoting emission offsets, maximizing public transit, and restricting the size of rental cars.

Davies and Dunk (2016) forecasted that growth in United Kingdom institutional emissions from students' international travel—inbound and outbound—coupled with associated travel from friends and family who visit them, would start to exceed their campus' efforts to reduce emissions in other areas. Shields' (2019) findings suggested a complex relationship between students, travel destinations, home countries, and emissions, noting that although the overall emissions are growing, emissions per student are decreasing. In most cases, research suggests that the relationship between the home and destination emission rates greatly influences the situation, with students traveling from high-income to high-income locations contributing over 60% of the emissions (Shields, 2019).

A second argument is that EA outcomes outweigh the costs (Zhang & Gibson, 2021). Research suggests that EA provides professional skills and contributes to HE internationalization (Deardorff, 2006; Kuh, 2008; Moseley et al., 2008; Tarrant, et al., 2015). Empirical studies suggest students' growth in the following domains (Lucas, 2009): academic knowledge and skills, intrapersonal growth, and intercultural awareness (Deardorff, 2006; Dolby, 2007 & 2004; Dwyer & Peters, 2004; Engberg, 2013; Hovland, 2014; Ingraham & Peterson, 2004; Jones & Abes, 2013; Zhang & Gibson, 2021). More specifically, EA can engender personal growth, awareness, and commitment to global thoughts and actions by promoting a broader worldview and deeper understanding of interconnected systems (Engberg, 2013; Hovland, 2014; Norris & Gillespie, 2009; Paige et al., 2009), and it could promote more sustainable actions (Hale et al., 2013; McLaughlin, 2020; Tarrant et al., 2015; Zhang & Gibson, 2021) by promoting first-hand experiences with complex concepts and exposing them to new technologies, policies, and ideas (Reilley et al., 2016).

In the end, the diversity of organizations, individuals, and models used in EA cannot assure specific outcomes (Mule et al., 2018; Sobania & Braskamp, 2009). For example, a study by Zhang and Gibson (2021) found

lasting influence from a sustainability-focused EA program on participants' interests in local cultures, pro-environmental consumption, and sustainable lifestyles. Similarly, Tarrant, Rubin, and Stoner (2015 & 2013) and Reilly et al. (2016) found similar outcomes that suggested that EA can promote sustainable action and global learning when compared to campus-based courses, yet in a similar study, Mull et al. (2018) found "no" to "only moderate" gains in global citizenship when compared to campus-based education. Research by Vandermaas-Peeler et al. (2018) showed no significant growth using a quantitative instrument.

Although EA has the potential to provide students with a life-changing experience (Hale et al., 2013; Paige et al., 2009), research suggests that the design must intentionally embed social justice, equity, interaction with host cultures, and connections between the academics and location to maximize its benefit (Dvorak, 2011; Hale, 2019; Tarrant et al., 2014 & 2013). Additional findings highlight the value of reflection and critical thinking as essential to helping students unpack their learning (Reilly et al., 2016; Vande Berg et al., 2012). Without proper design and implementation, not only will instructors find less learning, but their program can also prove to be disruptive to the host destination (Palacios, 2010; Hale, 2019; Woolf, 2007; Zhang & Gibson, 2021) and reinforce students' ethnocentric, neoliberal structures of power, ethics, and privilege (DiGregorio, 2015; Parmentier & Moore, 2016).

Institutional Perspective

To fully understand the value and role that EA serves in meeting the challenges of global sustainable development, the unique and holistic position that higher education institutions (HEIs) serve must be considered. With their expertise, scholarship, resources, and primary role as knowledge producers (Blessinger, et al., 2018), HEIs can drive the transformational change needed to build a more sustainable and equitable future. Through conducting global research, educating indigenous talent locally, working in partnership with the public and private sectors, HEIs can facilitate international collaboration to address the complex global problems and serve a critical role in achieving the UN SDGs. EA programs can intersect with every aspect of an institution's sustainable development strategy. The SDGs serve as a framework to guide and understand the influence an institution has globally. The extent and approach that each university chooses to address their role in solving these complex challenges and progress in the sustainable development goals are distinct and should align with the institution's vision, mission, and context.

For instance, public land-grant institutions have expanded missions that include contributing to environmental, social, economic, and human health domestically and globally (National Research Council, 1995). The land-grant model features applied research and extension to address global needs with a focus on public-private sector partnerships, and increasing amounts of science and technology are passed through to the community in addition to government and business (Croft, 2019). In many cases, EA programs provide an opportunity for students' hands-on educational and experiential learning but also enable the students to transfer knowledge to other communities (Michigan State University ISP Partnerships for Sustainable Community Development, 2021).

Through their missions of research, education, and extension (National Resource Council, 1995), land-grant institutions affect many of the SDGs. As a premier land-grant university and Michigan's first agricultural college, sustainability is core to the mission of Michigan State University (MSU). MSU's history is rooted in public service and leadership in areas of natural resources, stewardship, and health (see https://strategicplan.msu.edu/mission#landgrant). The university takes a holistic approach to sustainable development by embedding the principles of sustainability throughout its mission and embracing them in action (see https://sustainability.msu.edu/) and has named sustainability as a core pillar of its strategic plan (see https://strategicplan.msu.edu/strategic-plan/stewardship-sustainability).

MSU's progress and achievements are multidisciplinary and depend on the collaboration across the institution. The progress in addressing sustainable development is visible through planning documents; university commitments; and progress reporting on the framework of four pillars of success: campus; curriculum; community; and culture. This multipronged, comprehensive institutional approach is necessary to meet societal needs in addressing the wide range of complex social, economic, and environmental challenges to how society and economies function and how we interact with our planet (SDSN, 2020). This approach also provides the framework to ensure students and other learners within their sphere of influence have the knowledge, skills, and mindsets to address the SDGs in their current as well as future roles. Addressing the challenges and achieving the necessary transformations require all sectors to operate in more collaborative, systemic, and responsible ways (Sachs et al., 2019).

Recently, MSU has focused on cataloging sustainability in the curriculum, as through courses and experiential learning, faculty and students contribute to more sustainable operations of the university. MSU's recent sustainability reporting system assessment identified over 600 courses and

programs incorporating sustainability into the curriculum and experiential learning. An October 2020 survey by MSU's sustainability office found that at least four MSU colleges, EA programming, other international programs, and the general education program actively integrate SDGs into their curriculum. Of these areas, the most active use of SDGs in the curriculum is in the faculty-directed EA programs created by the colleges. Beyond courses, the Center for Community Engaged Learning organizes all its programs with the SDGs.

Education Abroad

The SDGs are an invitation for HE to include their merits within institutional goals and increase opportunities to deepen knowledge and practice among faculty, staff, and students. Through recognition of the alignment of the SDGs with existing missions and objectives, the goals can serve as a source of support, an additional framework or set of guideposts for campus initiatives, and a touchpoint for discussions. Interactions with ever-increasing international projects, activities, and scholarly work focused on the SDGs enable institutions to further their own understanding and consider new ways of viewing global issues. Awareness of the value of the SDGs for reinforcing existing goals and increasing knowledge can prompt or deepen institutional commitment to them. The following examples demonstrate what that commitment looks like, as colleges and universities move the SDGs forward within their systems and through connections to global learning objectives.

As stated by de Wit and Altbach (2020), "it would indeed be naïve to suggest that all forms of mobility, still the key component of internationalisation policies and practices, should or could be stopped…But some immediate actions could be taken to significantly reduce the negative ecological footprint of internationalisation." Ideas posed include reduction in short-term EA programming, prioritizing train travel over air travel, using fewer flights when air travel is necessary, engaging in collaborative online international learning (COIL), and bolstering intercultural exchange available domestically.

Although potentially complicated with respect to mobility, attention to the SDGs through EA is valuable for many reasons, not the least of which is the reinforcement of sustainability as a holistic concept for college learning. MSU believes that students can understand the ideas underpinning the SDGs as transdisciplinary and be encouraged toward the pursuit of knowledge and action when these outcomes are at the forefront of planning. Furthermore, the accentuation of the SDGs in EA programming offers an important opportunity to enact the global learning values that are espoused by the institution.

This type of thoughtful approach drives current conversations at MSU (International Studies & Programs, 2021), where International Studies and Programs (ISP) leads an evolving vision for moving the SDGs forward as part of an internationalization plan. The Office for Education Abroad aligns efforts with ISP, with the specific goals of increasing awareness of the SDGs among the MSU EA community, enhancing education programs through attention to the SDGs in program design, and advancing the SDGs through student learning outcomes and program delivery. To begin active engagement, the Office for EA committed to professional development on the topic of the SDGs in 2019 and invited staff to take part in related educational opportunities. As a result of ongoing reflection on purpose and planning, progress reports on the office's incorporation of SDGs into EA programming resources were presented by the executive director at the Michigan Association of International Educators (MAIE) in 2021, as well as part of an annual meeting session and two professional workshops for The Forum on Education Abroad in 2020–2021. Through collaboration with the Director of Sustainability, a faculty development workshop was delivered at MSU in the fall of 2020.

A project is now underway to map the SDGs to existing MSU faculty-directed EA programs, which will enable awareness of current foci. Additionally, as part of the new program proposal process, faculty will be invited to identify any SDGs that their program addresses through content, structure, or delivery. A program may have an academic concentration on sustainable issues, thus explicitly addressing the SDGs, or they can be addressed in other ways, such as the identification of on-site partners with strong commitments to sustainability, intentionality related to fair and ethical collaboration with community partners, and consideration of environmental effects when planning meals, transportation, and program activities. Therefore, encouraging faculty to contemplate these questions for new programs may result in educational opportunities that further the SDGs, and mapping existing programs to specific SDGs will aid students in their thoughtful selection of learning experiences. MSU has seen that some faculty actively engage with the SDG reflection process while others appear hesitant, thus there is additional work to be done to achieve active engagement.

Finally, the Office for EA has begun to tag events, such as guest lectures, workshops, and interest meetings, with one or more SDGs to which they correspond. This is a simple method of socializing the intentional connection of the office's work with the SDGs and encouraging community familiarity. Given that many other units within ISP, such as the African Studies Center, Asian Studies Center, Global Youth Advancement Network, and the Center for Gender in Global Context, are also engaging with the SDGs, the opportunities

for increasing awareness are many, as are the possibilities for collaboration that optimizes the transdisciplinary nature of Agenda 2030.

Program Perspective

Finally, we discuss the SDGs at the program level. Ávila et al. (2017) and Hale et al. (2013) stated that gaps often exist between research and innovation when compared to reality and reinforce how even though sustainable travel models are emerging, many programs do not integrate them well into curriculum and practice (Hale et al., 2013; Parmentier & Moore, 2016; Weaver, 2006). Building off earlier research, experts suggest that if a program is not designed well, students could achieve either less rich learning outcomes or potentially negative experiences such as increased ethnocentrism (DiGregorio, 2015).

For this reason, EA programs that maximize deep, enduring learning should discuss sustainability as a topic and incorporate the concept into the experience's design, implementation, and assessment. Zhang and Gibson (2021) noted that intentional program design enhances student learning, especially sustainable learning, by helping students feel connected to "place," applying sustainability in the real world, and discovering opportunities to advance sustainability in their personal and professional lives. As such, this program's instructional team tried to address the irony of taking students to Australia to study sustainability through multiple tactics, such as changes to logistics, community engagement, and pedagogy (Dvorak et al., 2011; Jirka, 2007; Mader, 2006).

Logistics & Planning

The sustainability-themed program started as a 3-week traveling field experience, spending about 9 days traveling in New Zealand and the remaining time in Australia. To maximize exposure to the two nations, the participants changed locations and accommodations almost every night by charter bus. For the initial revision, the instructors eliminated the New Zealand position of the program and extended the duration to 4 weeks. To address carbon emissions, the instructors integrated habitat restoration projects as a carbon offset. In addition, the program budgeted funds for community organizations and promoted methods for making donations for carbon offsets (Arsenault et al., 2019).

Relative to transportation, the program started using a local, female-owned business that specializes in cultural tourism instead of a large

multinational bussing corporation. With the help of this new partner, the program now uses centralized accommodations with day trips to local sites, helping the group travel less overall and spending more time in a region. This process allows the group to use a smaller bus, take advantage of public transportation, and minimize drive times. They also ask students to minimize their luggage to one checked bag per person to allow us to use the smaller public transportation options.

For housing, the group has moved away from staying in large, chain hotels and has focused on using youth hostels and locally owned caravan parks (Dvorak et al., 2011). The Youth Hostel International (YHI) ethic promotes recycling, energy conservation, and water reduction, while also providing students with the ability to buy and cook local foods for themselves. The location of the YHI hostels not only provides financial savings in major cities, but they also offer space for reflection and group meals. Most importantly, they facilitate the use of mass transit and walking for site visits and personal time. Establishing strong relationships with local partners supported changes to housing and transportation and was the second tactic in making the program more sustainable.

Community Engagement

One powerful way to embed the SDGs into EA is to build sustained, partnerships within the local community and intentionally address issues of equity and culture (Mule et al., 2018). Assuming students will naturally interact across cultures intragroup or with the host often leads to lowered engagement and intercultural learning, as students tend to stay within their identity bubbles (Johnstone et al., 2020); therefore, failing to address inequity through the curriculum and critical reflection allows students to avoid and ignore harder truths pertaining to the SDGs and can engender a sense of national or cultural superiority. To maximize positive intercultural learning and minimize dynamics of power and privilege, the program leaders used multiple approaches to increase engagement.

First, the leaders worked to establish partnerships with locally owned travel companies whose personal and business ethics aligned with sustainability and cultural learning. Through these partnerships, the instructors found new, more diverse field visits with local organizations including nonprofits, government agencies, small-scale farmers, schools, and health services. This change not only helped us work more closely with local communities (Hale et al., 2013; Woolf, 2007), but it also allowed us to access a new cadre of organizations that increased the students' interaction with the

community. For example, we started visiting a local elementary school for a day each year and also began working with an Indigenous student services office at a local university.

Second, after working hard to make and sustain community relationships that supported the SDGs, the instructors refined the organization and implementation of the programs' orientation and assignments. Starting with predeparture orientation, the instructors increased the focus on Australia's European and Indigenous histories to set the stage for learning while abroad and build intercultural learning both intra- and intergroup into the expectations for participation and engagement. They purposefully highlighted equity as a topic of academic discussion and group travel, making it part of the group's norms, a conflict resolution expectation, and an ongoing question for group reflection. Instructors also created field observation activities that asked students to specifically explore each new city they visited through a sustainable lens.

Finally, they used local community connections to embed service-learning and community engagement projects into the program. Some efforts include a partnership with a local city council to help with research related to urban sustainability efforts, the ongoing partnership with the local elementary school, and ongoing visits to Indigenous communities to help with projects as needed. Two more formal efforts include a rainforest reclamation effort in Far North Queensland in which students spend several days with a community ecologist learning about the role of the rainforest in return for a day weeding and planting trees to create corridors between smaller forest patches, as well as a partnership with an ecological center located on a degraded former pastoral zone. In exchange for lodging, lectures, and tours with local guides, the students participate in local research projects and habitat restoration efforts.

Integrated Pedagogy

Students in this program earn credits that fulfill general education and experiential learning graduation requirements. Research states that programs that focus on sustainability as a topic should also connect sustainability into the design of the programs' assignments, outcomes, and location (Dvorak, 2011; Parmentier & Moore, 2016; Tarrant et al., 2014 & 2013), so having a program design that integrates the SDGs into as many facets of the program as possible is essential to maximize learning and promote sustainable action (Johnstone et al., 2020). This section outlines how the instructors restructured the program's pedagogy to align with the SDGs.

As suggested by the literature, sustainability efforts often fail to address all aspects of the concept and vary between the program's location, logistics, planning, activities, and learning outcomes (Hale et al., 2013; Tarrant et al., 2013). Although this program always had environmental and social components, it focused on agriculture and government; therefore, the instructional team worked to broaden content and site visits to include water use, resource equity, education, health, and Indigenous history and culture. In addition, they embedded sustainability not only as the program focus and curricular content, but as an ethic for how they designed and implemented the program, weaving it into the ethics of the experience, not just the topic.

They also worked with their community partners to develop relationships with Indigenous families, and the program works with these families to foster meaningful engagement—not touristic engagement—between Indigenous communities and students. For many years, the instructor struggled to have students participate in a meaningful engagement with the local Indigenous peoples that was not a preset show or tour. The students have now visited Indigenous farms and homesteads, gone crabbing, and participated in dialogue with our partners. All students on the program are now required to write at least one paper on an issue related to Indigenous social justice issues, and the instructors weave the concepts through all the visits.

The instructors have increased the use of a social justice lens on the existing themes of food, water, and energy. As part of group reflection and dialogue, the instructors intentionally ask questions such as "sustainable for whom" and "access for whom." When students see something as a good model, leaders problematize the use and applicability of the effort to various communities based on race/ethnicity, economics, and geographic location. Instead of spending most of our time touring major cities and tourist areas, the program now very intentionally visits small towns and considers how rural Australians are (and are not) grappling with sustainability.

Just as the program sought to minimize travel, we also started to cluster site visits around key topics to curate diverse site visits related to major themes. For example, when talking about food production, the group would visit large, traditional farms, family-owned operations, organic farms, and permaculture operations. These visits would showcase a range of food production tactics that would help students consider the topic from different perspectives. The advantage of this approach was threefold: (1) it provided students with more background knowledge to compare abstract concepts in real-world contexts (Reilly, McGrath, & Reilly, 2016); (2) it provided more depth and less breadth in content and allowed for more reflection time; and

(3) it supported efforts to integrate economic and social issues into the traditional environmental focus of the program.

Conclusion

The discussion to eliminate EA to enhance sustainability is important, yet rash, for several reasons. First, a major argument to limit travel is due to carbon emissions. As seen from the SDGs, literature, and the case at MSU, HE should employ multiple methods to achieve sustainability; eliminating academic travel across the board is an overstep, and only focusing on carbon emissions and ignoring the other ways EA can promote sustainability. Second, one must consider context. The definition and implementation of sustainability vary based on many factors, including institutional mission, program design, learning outcomes, and travel purpose and location. Third, and related to this idea, how one operationalizes sustainability as a concept matters. Using the SDGs as a foundation, EA has the potential to expose students to a wide range of ideas in concrete, life-changing ways. Done right, EA is not a determinant of sustainable lifestyles but rather a core activity to further them.

Examining the practical effects of EA activities—as well as their potential for deepening student learning through program structures, content, and pedagogies—is especially informative when approached from a systems perspective. This multifaceted discussion of EA through institutional, unit-level, and individual programmatic lenses emphasizes the merit of academic travel and its promise for the cultivation of individuals who are exposed to issues of sustainability and may contribute to the advancement of the UN SDGs. Through attention to context, collaboration, and intentional design, the benefits and challenges of EA can be realized, while the importance of attending to progress toward sustainability is not diminished.

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