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CREATING A PATH FORWARD:
INTERNATIONAL EDUCATION, CLIMATE
CHANGE, AND SUSTAINABILITY

by the 2020–21 NAFSA Senior Fellows

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NAFSA is the largest and most comprehensive association of professionals committed to advancing international higher education. The association provides leadership to its varied constituencies through establishing principles of good practice and providing professional development opportunities. NAFSA encourages networking among professionals, convenes conferences and collaborative dialogues, and promotes research and knowledge creation to strengthen and serve the field. We lead the way in advocating for a better world through international education.

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Introduction

BY DOROTHEA J. ANTONIO

The 2020–21 NAFSA Senior Fellows are featured in this special edition of *Trends & Insights*. Recognized for their considerable experience and outstanding academic scholarship, the Fellows provide the global, interdisciplinary approaches necessary for the field of international education to consider climate change and sustainability.

At a time when the world faces multiple complex challenges, international education is uniquely positioned for its potential to influence change. The postpandemic environment will be a critical time for universities to be globally engaged for sustainability. How can international educators help design a path forward toward a sustainable world and globally engaged students? What does a sustainable future look like?

From their unique perspectives, each Fellow presents a different approach, leading to a powerful collection of readings. **Ailsa Lamont** (Pomegranate Global) explains how the increase in climate consciousness is now presenting itself in the field of international education and urges readers to respond to this opportunity. **David Ssekamate, PhD**, (Uganda Management Institute) examines how climate change and sustainability topics can be embedded in the governance and management practices of higher education institutions and the implications for international education. **Lisa Sachs, JD**, (Columbia University) provides insight into the role of the legal profession in addressing the global sustainability challenge and suggests key changes law schools can implement to train future global leaders. **John Hoal, PhD**, (Washington University in St. Louis) looks at urban development, global inequity, and sustainability, introducing guiding principles for universities to develop innovative academic programs and global collaborations for maximum impact. Finally, **Janet Ilieva, PhD**, (Education Insight) considers the relationship between international education and sustainable development, access, and opportunity, using the United Nations Sustainable Development Goals as a framework for international educators.

The economic, environmental, and social aspects of sustainability for international education require thoughtful and innovative review and analysis, and NAFSA is committed to furthering the conversation and providing additional scholarship to the field. As part of this commitment, the five Senior Fellows will build on these ideas in a special session at the [NAFSA 2021 Annual Conference & Expo](#) and in a forthcoming publication.

DOROTHEA J. ANTONIO is the deputy executive director of knowledge development at NAFSA: Association of International Educators.

Designing a Sustainable International Education Sector

BY AILSA LAMONT

Public awareness of the severity and scale of the climate challenge has grown markedly of late, in no small part due to the increasingly visible effects of a changing climate coupled with public activism. Unsurprisingly, this shift in climate-consciousness has also begun to make itself felt in the field of international education (IE).

Until recently, it was a rare IE practitioner who drew a direct line between his or her work and action on climate change, whereas now, most major IE conferences include reference to environmental sustainability. This is a vital shift given the potential for climate change to disrupt the operating environment of higher education dramatically within a matter of decades.

That this realization has arrived just as a global pandemic wreaks havoc on traditional forms of physical mobility creates a moment of reckoning for the IE sector.

New research has illuminated the scale of IE's contribution to the climate crisis; international air travel associated with student mobility (a long-time staple of IE) generates annual greenhouse gas emissions comparable to that of a medium-sized country, like Croatia or Tunisia (Shields 2019). This figure underrepresents the emissions contribution by our field, as it only refers to degree mobility and does not count exchange mobility or the extensive travel undertaken by staff and faculty.

Any optimists harboring hopes that the COVID-related drops in manufacturing, travel, and other human activity last year have eased the problem will unfortunately be disappointed. CO₂ levels continued to rise in 2020, only slightly less than the growth rate in 2019 (Copernicus 2021). In addition to 2020's other dubious distinctions, it joined the previous 5 years as part of a select and unedifying group: the hottest 6 years since climate records began.

STUDENT ATTITUDES ON SUSTAINABILITY

So how do these issues play out in terms of student attitudes? The evidence is inconclusive, as most major international surveys have only recently introduced questions on student attitudes to climate and sustainability. Additional research is clearly needed to improve the field's understanding of these dynamics. That said, current indications show most students now expect universities to take active steps to operate in a more environmentally sustainable manner.

Together, this rising eco-consciousness among students and the emergence of rankings that measure universities' performance against the United Nations Sustainable Development Goals—including climate action—create clear potential for the green credentials of a university, or even a country, to sway prospective students' decisions about where to study.

Students' growing appetite for action is mirrored by that of professionals working in our field. The Climate Action Network for International Educators (CANIE) has grown exponentially since its launch in late 2019 and is running to keep up with the demand from the sector for resources, guidance, and events to support the transition to more climate-friendly operating models.

What is driving this demand? The recognition of the growing chasm between where we are today (global greenhouse emissions still rising) and where we need to get to (carbon neutrality by 2050) as well as the knowledge that the remaining years of this decade are critical.

SUSTAINABILITY IN EDUCATION ABROAD AND INTERNATIONAL OFFICES

Higher education is at the forefront of many efforts to slow or reverse global heating, most notably through research and innovation, teaching, and investment in green campus infrastructure. Not to diminish the importance of that work, but these efforts simply will not be enough. Tackling climate change requires that we pull every lever at our disposal, which means study abroad and international offices must also consider how they might contribute to this collective effort.

We face a major dilemma, however, as international educators seek to balance the competing needs of reducing the carbon footprint of study abroad with their aspirations to provide students with access to international experiences.

Many universities and study abroad providers have chosen to concentrate their efforts on greener travel policies, offering financial incentives to students to choose destinations that can be reached by low-carbon means of transport or offsetting the emissions associated with travel.

Sustainable internationalization certainly extends beyond travel policies, however, and the response by the field of IE to the challenges and restrictions of the pandemic offers some helpful pointers for how we might approach this conundrum.

Some aspects of internationalization can be achieved by virtual means, a fact that holds true for the work undertaken by staff and faculty to support the infrastructure of IE as well as for student mobility. There are numerous examples of practitioners utilizing virtual recruitment and digital marketing, collaborating with sustainability office colleagues, creating climate innovation funds and scholarships, and embedding climate literacy across the curriculum. Collaborative Online International Learning (COIL) may have gained prominence recently as a substitute for physical mobility, but there is growing evidence that it can and should play a valuable role even beyond the pandemic.

These positive examples offer many benefits, so as word spreads and techniques are shared, they will likely come to be seen as standard good practice in internationalization, particularly as many of these approaches lend themselves well to a postpandemic world.

And yet, we face a critical decision as the pace and quantum of change are still far from sufficient. We can carry on as before, perhaps with some minor tweaks, knowing that we could have done more and that the consequences of our failure to act will be felt most keenly by people in marginalized groups and low-income countries, or we can face the future head on and do everything in our power to make a significant impact.

If we were to choose the latter option, what *could* IE look like if it were truly sustainable?

- Every single institution would factor in the carbon cost of its work and make the commitment to climate action a clear and central pillar of its strategy.
- Every student who studies abroad, whether on a short program or for a degree, would learn the basics of climate action and climate justice.
- Staff and faculty would forego some of their travel privileges to “credit” their emissions to the students who have not yet had the opportunity to explore this incredible world.
- The challenge posed by the heating planet would be viewed as a learning opportunity, a teachable moment to improve understanding of systems change and complex problem-solving.

In short, in a truly sustainable IE sector, we would keep faith in the value of our work and continue to give students chances to build their international outlook, mindset, and connections—but in a way that is as intentionally low-carbon as possible and delivers the utmost insight, empathy, and learning about the problem.

Designing a sustainable and inclusive IE sector fit for this challenge is within our power if we choose to

harness the wealth of our collective knowledge, connections, and skills. As international educators, we recognize and promote the value of studying abroad. There may never again be an opportunity such as this to step up, model global leadership, and show ourselves and others the true power of IE.

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After 25 years of professional experience—spanning capacity building, social innovation, and international education—as well as roles as international director and pro vice-chancellor international at three Australian universities, **AILSA LAMONT** founded Pomegranate Global in 2016 to guide the education sector to take action on climate change. She has since trained with The Climate Reality Project, former U.S. Vice President Al Gore’s foundation to catalyze a global solution to the climate crisis. In 2019, Lamont cofounded Climate Action Network for International Educators (CANIE), a grassroots initiative by international education practitioners who see the need and the opportunity to step up and take greater action on climate.

Sustainability, Climate Change, and Higher Education Governance

BY DAVID SSEKAMATTE, PHD

Matters of climate change and sustainability continue to dominate discussions across various sectors and disciplines, focusing on how economies can address the climate change phenomenon and ensure sustainable development across the globe (Boyde and Hume 2015; Filho 2017). This article examines the various ways in which climate change and sustainability aspects can be embedded in the governance and management practices of higher education institutions (HEIs) as well as the implications for the field of international education (IE).

THE ROLE OF HEI GOVERNANCE IN PROMOTING CLIMATE CHANGE AND SUSTAINABILITY EDUCATION

Ongoing scholarly discourse indicates that education, and specifically higher education, can play a key role by contributing to global efforts to address climate change and sustainability topics (Calzadilla, Mauger, and Du Plessis 2018; Filho 2015; Gale et al. 2015; Higgins and Thomas 2016). These roles include:

- integrating climate change and sustainability topics into the curricula across various disciplines to produce graduates with the knowledge and skills to address these issues in their workplaces;
- conducting scientific research and promoting innovation on climate change and sustainability to inform society and other actors of the impact, mitigation opportunities, and adaptation strategies;
- educating communities on climate change and its impact on social, economic, and political aspects of their life as well as how they can respond; and
- engaging government officials and policymakers to create awareness of climate change and sustainability topics based on research and propose policy interventions for mitigation and adaptation.

HEIs in many countries are led by external entities—such as boards, councils, or committees—that govern administrative and academic functions (Yirdaw 2016; Higgins and Thomas 2016). Such governing bodies can play a key role in promoting climate change and sustainability education. They oversee decisions on the vision, mission, strategy, resources, and operations and, therefore, can ensure that topics of climate change and sustainability are embedded into programs and practices. For instance, the governing council could influence adoption of renewable sources of energy within the institution.

EMBEDDING CLIMATE CHANGE AND SUSTAINABILITY TOPICS IN HEI GOVERNANCE

There are several ways that aspects of climate change and sustainability can be embedded in governance and management practices at HEIs:

- Review organizational culture to embed climate- and sustainability-friendly practices. This could be done by revising the organizational values and strategies, communication systems, procurement processes, and campus administrative systems to support efforts for a green campus and the use of sustainable energy sources.

- Sensitize governing bodies on the need to mainstream climate change and sustainability aspects in strategic and operational systems. This will encourage them to review institutional strategic and operational plans, policies, and practices and embed these topics throughout.
- Invest in capacity-building or trainings for all managers and support staff on aspects of climate change and sustainability to embed them into management operations.
- Revisit appraisal and performance management systems to ensure that individuals and departments report on performance indicators for climate change mitigation, adaptation, and sustainability in their work.
- Develop a “civic engagement strategy” to engage communities and partner institutions to work toward climate change mitigation and promote sustainability in their operations.
- Invest in reshaping knowledge structures by promoting interdisciplinarity and multidisciplinary teams among faculty to address climate change and sustainability aspects within their operations. For instance, connect faculty from natural science units with those from the social sciences to jointly work on a common research project.

IMPLICATIONS FOR IE AT HEIs

Embedding climate change and sustainability topics in governance and management practices of HEIs will influence IE. IE offices will need to be cognizant of current sustainability topics in designing internationalization strategies for their institutions. For example, internationalization at home (IaH) programs, like internationalizing the curriculum, will need to be reviewed to ensure that climate change and sustainability topics are addressed. IE offices should ensure that sustainability topics are embedded throughout the curriculum as well as in cocurricular activities to enable all students to become informed on these topics. For cross-border international programs (e.g., faculty in international research, study abroad programs, and visiting scholars), IE offices could develop ideas for how to support faculty in integrating topics of climate change and sustainability in their international research projects, promote interdisciplinary and multidisciplinary teams, as well as guide students

on study abroad programs to engage these topics (Deardorff and Charles 2018; Puntenev 2019).

IE offices should explore designing IE activities that address climate change and sustainability topics on and off campus as a way of contributing to sustainable development in their communities. Doing so will help students, faculty, and community members become aware of these topics, as well as enhance mitigation and adaptation efforts in the communities. They should also explore climate- and sustainability-friendly practices during events and activities, such as ensuring sustainable travels, hosting climate smart events, and pursuing partnerships that promote sustainability within various areas of operations. All of these initiatives are achievable with collective effort and collaboration with the governing bodies of institutions.

CONCLUSION

Embedding climate change and sustainability aspects in the governance and management practices of HEIs has implications for IE. Therefore, IE offices will need to reflect on what they can do to promote sustainability at their campuses. Doing so will position HEIs as partners in addressing the climate change crisis and prepare the next generation of actors and champions for sustainability.

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Integrating Sustainable Development into Legal Education for Global Impact

BY LISA SACHS, JD

The world stands at the precipice of transformative societal change. The relentless pursuit of wealth at any cost has created unprecedented dangers: climate change, collapse of ecosystems, and historically high levels of income and wealth inequality, leading to new social tensions and instabilities. In the race against time, the world collectively embraced the globally supported Sustainable Development Goals and the Paris Agreement; together, these efforts chart a path toward a world that is more inclusive, just, and environmentally sustainable, healing societies and averting deeper crises.

A sustainable and just future will require “a major change in the organization of societal, political and economic activities,” led by the coordinated actions of governments, businesses, financial institutions, civil society, and academia (Sachs et al. 2019). Some are leading the way—notably the policymakers in the European Union, Japan, and Korea, who have announced not only ambitious climate goals but robust “Green New Deals” that incorporate transformations in energy systems, food systems, infrastructure, jobs, and so on. Some industries are following, such as the business and financial sectors, which are awakening to the risks of their continued quest for profits.

Unfortunately, the legal profession lags behind, adhering closely to its traditional roles in service of clients and ignoring the brewing storm. A transformation is needed, and for that, we should look to law schools and how future lawyers are trained.

ETHICS AND RESPONSIBILITIES OF LAWYERS AND LAW SCHOOLS

In the United States, the American Bar Association (ABA) requires law schools to prepare their students “for effective, ethical, and responsible participation as members of the legal profession” (ABA 2020). However, what “ethical and responsible” lawyering constitutes

is left to the schools (Center on the Legal Profession at Harvard Law School 2018), and few have interpreted that standard to require training lawyers to understand the world’s challenges and the lawyer’s central role in contributing to—or addressing—them.

Indeed, lawyers play a central role in the sustainable development challenge. Law—as it is created, used, and enforced—underpins societal allocations of costs and benefits, delineates the relationship between property rights and the public good, and drives innovation while providing checks on private power. Lawyers are at the cross-section of societal transformation; they have a unique and central role in navigating society out of crisis and toward a just and sustainable future.

Law schools have a responsibility to their students and society to instill a deeper appreciation of the power lawyers hold to shape societies through their practices and decisions over which causes to champion and which to decline. Through the numerous programs for international students, including master of laws (LLM) and exchange programs, law schools also have a unique opportunity to reflect and exchange on the transnational nature of legal responsibilities and ethics.

DEVELOPMENTS IN THE LEGAL FIELD

In 2013, the ABA encouraged law schools “to help promote a better understanding of the principles of sustainable development in relevant fields of law” (ABA 2013). The report accompanying the resolution explained, “In a world with a growing economy and population, widespread poverty, and growing environmental degradation and greenhouse gas emissions, sustainable development will be increasingly important to lawyers and their clients.” Accordingly, the report anticipated that an understanding of the challenges and approaches to sustainable development, including the interrelated components of environmental protection, economic development, and social justice “will be critically important for the legal profession.” Yet the uptake since has been too little and too slow.

While legal ethics remain narrowly construed and taught as the duties owed by lawyers to their clients and the courts, society has a broader understanding and will increasingly hold lawyers to account. For instance, in October 2020, a group of Yale Law students published *The 2020 Law Firm Climate Change Scorecard* (Law Students for Climate Accountability 2020), a scathing report of the role that top law firms play in the climate crisis. The students evaluated the core activities of the law firms—litigation, transactions, and lobbying—and concluded that, overwhelmingly, the 100 most prestigious law firms in the country are doing “significantly more...for clients who exacerbate the climate crisis than for those who address it.”

LAW SCHOOLS OF THE FUTURE

The law schools that will best prepare their students for future legal practice will be those that successfully integrate society’s triple bottom lines—economic, social, and environmental—into core legal training. Indeed, our environmental and social crises and society’s response to them are relevant to all traditional legal courses. Two years ago, Warren Lavey (2019) delivered a tremendous resource to law schools with his “Toolkit for Integrating Climate Change into Ten High-Enrollment Law School Courses.” Lavey (2019, pp. 215–6) emphasized:

Effective lawyering requires understanding threats from changing environmental conditions and laws, navigating complex regulatory mechanisms, developing innovative transactions and litigations, guiding corporations in considering and

disclosing climate-related measures and risks, planning land uses for resiliency and lower emissions, and other activities demanding knowledge and skills absent from most law courses.

In his toolkit, he demonstrates the critical relevance of climate change to 10 areas of law: contracts, property, torts, civil procedure, constitutional, business associations and securities, tax, administrative, land-use planning, and international law. To this list, one could add other areas of law, including immigration, international arbitration, and criminal law, as well as the critical relevance of social inequality to all of these fields.

Law schools around the world are teaching the future stewards of our society; they have a unique opportunity, and indeed responsibility, to provide law students with all of the understanding and perspective that that role requires. Key elements are aligning to position law schools at the forefront of these efforts; the ABA has underscored the importance of integrating sustainable development, students are calling for change, employers value skills mirroring the market, and phenomenal law professors have expertise in critical areas of sustainable development. Many law schools welcome cohorts of international students each year, bringing perspectives and experiences that can enrich all students’ understandings of global challenges and seeking the most globally relevant legal tools and skills for a broad set of global careers. The law schools that integrate these components will be most successful at attracting and training tomorrow’s leaders.

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Sustainable Urbanism: Opportunities and Challenges for Higher Education Institutions

BY JOHN HOAL, PHD

The design, development, and management of cities is instrumental to the challenge of combating climate change and moving the planet toward a more sustainable future. Approximately 55 percent of the world's population (4.25 billion people) live in cities today, a number expected to grow to 6.8 billion people or 70 percent of the world's population by 2050 (United Nations 2018).

Cities are engines of economic growth, centers of innovation, and arenas for social transformation. They generate approximately 85 percent of the world's gross domestic product, while at the same time being one of the greatest contributors to climate change and the overuse of the earth's planetary systems (United Nations 2019). When cities are understood as metabolic systems and their impact is quantified through their ecological footprint, the significant role of cities in exceeding the bio-physical planetary boundaries is apparent.

Without a significant change to how cities are designed, developed, and managed, the projected growth of cities will result in an unprecedented and unsustainable demand on the planet's biosphere and an increasingly large carbon footprint that will most likely prohibit achieving the goal of limiting global warming to 1.5–2.0 degrees Celsius per the Paris Climate Agreement. A new teaching model for city design and development based on sustainable and resilient urban development and climate mitigation and adaption is required. Higher education institutions (HEIs) must respond to this challenge.

Historically, cities are the greatest drivers of prosperity, creativity, innovation, and social change. With many of the leading HEIs located in cities and driving innovation therein, higher education becomes an essential partner to facilitate the necessary transformations. In order to address the challenges of climate change and create the necessary knowledge

base for a sustainable future, HEIs (especially those located in metropolitan areas) need to have a major focus on the design, development, and management of cities—humanity's habitat.

THE TWENTY-FIRST CENTURY HIGHER EDUCATION IMPERATIVE: SUSTAINABLE, RESILIENT, AND CLIMATE-READY URBANISM

Today, there is a lack of academic programs in higher education focused on creating the necessary city design, development, and management professional expertise and knowledge required to address the varied and localized implications of climate change in cities and the path toward a resilient and sustainable future. To this end, HEIs need to develop new, integrated city design, development, and management academic programs utilizing the next-generation, inter- and transdisciplinary knowledge base that should be deeply rooted in HEIs' evidence-based research, experimentation, innovation, and practice for climate-ready, resilient, and sustainable urbanism.

FRAMEWORK PRINCIPLES

HEIs as a collective, global enterprise should adopt the following principles in developing the new sustainable, resilient, and climate-ready urbanism academic programs:

1. Inter- and Transdisciplinary Knowledge

Climate change and sustainability requires the

creation of new research methodologies and knowledge bases that utilize full-spectrum inter- and transdisciplinary systems thinking. Building a sustainable, resilient, and climate-ready city will require the life, physical, and social sciences as well as the arts and humanities to develop new streams of integrated and holistic knowledge and methodologies for a multi-scalar spatial and temporal approach to the design, development, and management of cities. Creating this knowledge base is a fundamental task of HEIs.

2. Co-Creation of Knowledge and Evidence-Based Research

For this knowledge to be actionable for communities and to overcome the “know-do gap,” it is essential that communities co-create this knowledge from evidence-based research and practice. This approach requires long-term and in-place community engagement and commitment by HEIs in partnership with industry, government, NGOs, and activists. HEIs need to lead this engagement based on an agreed upon set of transparent and articulated ethics and research models that value culture, people, place, and shared responsibility for mutual benefit.

3. Integration of Research and Teaching

HEIs need to establish a global network of university-wide research and teaching centers to create world-changing innovation at the scale necessary to combat urban climate change and achieve a sustainable future. HEIs should establish these centers to integrate research and academic programs and overcome siloed disciplinary research and teaching. In partnership with other HEIs, these centers need to engage in transnational projects and provide a venue for innovation for sustainable, resilient, and climate-ready cities.

4. Open-Source Global Knowledge Commons

Climate change is an emergent, complex, multi-scalar, and transboundary crisis in an unequal world that has and will continue to have varied and inequitable spatial and temporal impacts on communities. In turn, communities have very different approaches and available resources to

mitigate or adapt to these evolving conditions. HEIs need to research these varied impacts, approaches, and resource limitations in order to innovate applicable solutions and make this knowledge available to *all* through an open-source global knowledge commons.

5. Radical and Ethical Pedagogical Programs and Research Practices

For academic programs and research protocols to be globally applicable, HEIs need to embrace radical and ethical pedagogical practices, foster experiential and transformative learning, and address the dominance of the Western-centric educational model. It will also require a focus by HEIs on multi-institutional and international post-professional education and advanced research degrees. Thereby, HEIs can address the global inequity in education, which is essential to the creation of livable, sustainable, and climate-ready cities as well as addressing the local climate challenges and the particular geographical distribution of the future growth of cities.

IMPLICATIONS FOR INTERNATIONAL EDUCATION

Given the global scale of the climate crisis with its immense collateral impact on cities and the need to move toward urban sustainability, creating relevant and evolving models for the design, development, and management of cities is an essential and immediate task for higher education. To achieve this at the speed and scale needed to successfully impact the crisis, international educators must form global partnerships and collaborations. The creation of a global network of urban sustainability research and teaching centers, based on the framework principles noted above, will enhance the ability for HEIs to address these challenges locally and globally, and equitably and sustainably. Only through active international engagement, teaching, research, and innovation partnerships by HEIs on a long-term basis will urban communities become climate-ready, resilient, and sustainable.

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Toward Sustainable Engagement in Global Higher Education

BY JANET ILIEVA, PHD

The reach of global higher education engagement is understated, and often it is reduced to measuring the number of international students and the tuition income they bring to higher education institutions (HEIs) and their local communities. Comparisons are not often provided regarding international graduate outcomes, internationalization at home, and international partnerships. UNESCO data (see <http://data.uis.unesco.org/>) point to 5.6 million globally mobile learners in 2018; however, there are no estimates about the breadth of universities' courses delivered across national borders or the true scale of international research cooperation beyond citation metrics. Simultaneously, there is a growing awareness around the universities' contribution to sustainable development. The [United Nations Sustainable Development Goals \(SDGs\)](#) provide an excellent framework for global engagement to advance health and education and tackle shared challenges like climate change, poverty, and food security. The past year highlighted the strength of multinational scientific collaboration and knowledge-sharing in the quest for COVID-19 vaccines and illustrated the positive impact of international cooperation in the face of global challenges.

This article reflects on a year filled with disruptions and considers their mid- to long-term impact on HEIs. The list of priorities draws on the challenges many HEIs are facing in response to shifts in the external environment. This article pays special attention to the potential opportunities internationalization at home and transnational education (TNE) contribute to the sustainable development and climate change agenda. TNE is broadly defined as education delivered in a country other than the one where the degree-awarding institution is based (Universities UK n.d.).

ECONOMIC DOWNTURN AND WIDENING INEQUALITIES

Despite all of the challenges, there is a range of unintended consequences of the pandemic that can be viewed as silver linings. The pivot to online learning in 2020 required a significant investment by HEIs and governments when face-to-face instruction was suspended. As a result, online and blended learning are likely to become embedded in the standard education delivery, presenting an opportunity to

continue to engage with learners irrespective of their geographical location.

Many universities were already offering virtual internships to students who are unable to travel from their home country. Some are drawing on their international partners in the joint delivery of programs abroad, whereas others are in the pursuit of such partners to ensure that uninterrupted education takes place and their international students are supported locally. Will these new means of engagement remain in the future? The opportunity is certainly there. In addition to widening access through internationalization at home efforts, TNE provides environmentally friendly means to sustain the delivery of programs and strengthens global connections.

SUSTAINABLE ENGAGEMENT THROUGH INTERNATIONALIZATION AT HOME

A very small proportion of the world's tertiary education learners have the means to study abroad. An even smaller number of students participate in study abroad

credit mobility, or access short study abroad experiences. In a recent article for the Center for International Higher Education, Tsiligiris and I (2021) argue:

Increasingly, globally-minded students are environmentally conscious, and their choice of study opportunities is no longer solely focused on career prospects. Institutions' carbon footprint and contribution to sustainable development policies globally are likely to become a critical decision-making factor for students. The question is whether this change will be demand-driven or whether higher education institutions will take leadership on this matter.

There is a clear opportunity for universities to collectively take ownership and contribute to the climate change agenda. Greener means of experiencing study abroad will evolve, and students will continue to demand this from the institution of their choice. Additionally, engaging all students with the SDGs is a task for all education providers. A well thought-out and carefully considered curriculum, which draws on the challenges the world faces, will emerge as a necessity for each HEI claiming to be globally engaged.

TNE'S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

As previously argued, the breadth and impact of TNE on the host country remain relatively unexplored. While both Australian and UK universities report large numbers of TNE students, most countries do not collect data on their cross-border education activities.

Also, collaborative teaching through TNE has enabled local capacity-building and development in subject areas that lack local expertise (British Council, Philippines 2021). Closer collaborations between HEIs globally contribute to a greater awareness of the challenges around widening access to education. Research shows that TNE widens students' study options (Tsiligiris, Lawton, and Hill 2021) and responds to the needs of those with family and work commitments. An exploratory research shows that TNE appeals to students who often speak two or more languages. This is valuable for international businesses seeking to recruit talent with language skills. TNE reverses brain drain by attracting international students to the geographical locations in which it is taught (Ilieva et al. 2021). Still, the contribution of TNE to sustainable development remains broadly unexplored.

McNamara and Knight (2015, 45) distinguish between collaborative and stand-alone TNE. Collaborative TNE provision takes the shape of strategic partnerships between the host institution and the sending HEIs. Degrees become more valuable when issued by HEI partners; these degrees bring a wide range of benefits to students, such as enriched cultural and academic experiences that are valued by employers, degree recognition across several countries, and access to labor markets.

CONCLUSION

This article uses the United Nations SDGs framework to raise awareness about the contribution of HEIs to sustainable development through their internationalization at home programs and TNE activities. In addition to the introduction of virtual mobility, many HEIs are advancing projects that bring together students from different geographical locations. Increasingly, programs that focus on public health, climate change, and sustainable development are gaining popularity with students.

Engaging in collaborative TNE provides the means to develop programs that contribute to local capacity-building in niche subject areas that are limited or do not exist locally. The contribution of TNE is primarily in widening access to quality education and advancing opportunities for lifelong learning (SDG 4).

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