

HEALTH AND SUSTAINABILITY IN HIGHER EDUCATION IN THE GLOBAL SOUTH

By Jack Ruane

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FOREWORD

The Sustainable Development Goals are a blueprint for peace, prosperity and planet. Their overarching objective is 'leave no one behind'. According to the UN, people get left behind when 'they lack the choices and opportunities to participate in and benefit from development progress'.

This statement is true, there certainly are millions of people that lack the socio-economic opportunities they deserve and should be entitled to and this must be remedied. But it should come as no surprise that those with the least opportunity and choice are often those that think of the most innovative and creative solutions to sustainable development issues. Sustainable development is more than just a nice to have for those in low socio-economic areas, it is the difference between life and death. This means they have a drive to find solutions lacking in the most developed countries.

The Global South, though demographically varied, is home to the large majority of those living in the worst poverty. These people have so much to offer regarding ingenious, low cost, low capacity ways to be more sustainable. They need infrastructure and investment to bring these ideas to fruition, and they need to be empowered and recognised to make sure they are not left out of Sustainable Development discussions, as they have much to add.

This report, which brings to the foreground really interesting initiatives in institutions in the Global South that contribute towards SDG 3 Health and Well-being is incredibly valuable and we hope to see continued knowledge exchange all around the world on the SDGs. Working together in this way is the only path to a better world, and those in the Global North have much to learn from the South.

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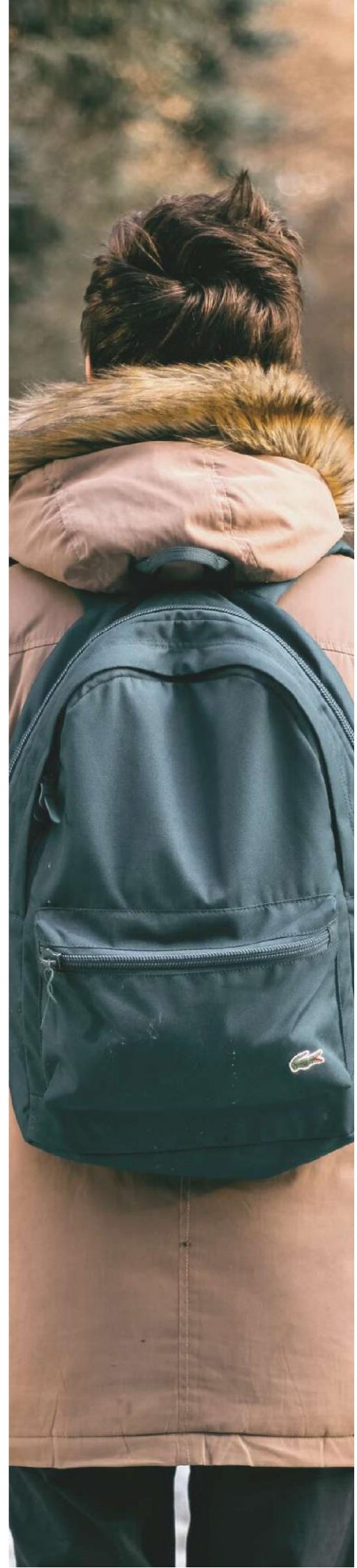
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EXECUTIVE SUMMARY

This report aims to present exemplary cases of HEIs in the global South working towards health and sustainability through four key areas: Leadership, Staff & Governance; Campus, Community & Operations; Partnerships, Society & Engagement; Learning, Research & Students. Previously, it was mistakenly believed there was a lack of engagement from HEIs in the global South with the 2030 agenda. However, this research shows that there is a wealth of action being taken towards the goals, and aims to foreground best practice from the global South so it can act as a model for the global North, in a reversal of the usual trend.

Due to the increasing calls for a One Health approach, in which planetary and human health are seen as interdependent and central to all the SDGs, this report showcases examples of HEIs working towards health and sustainability. Nine case studies from HEIs from Latin America, Africa and Asia-Pacific regions are included, and eight practices which can be implemented by other HEIs globally are identified: Health promoting and sustainable campuses; campuses as living laboratories; porosity with the local community; harness distance learning; value local and indigenous knowledge; partnership and collaboration; applied teaching and learning; demand-driven research.



INTRODUCTION

It is often mistakenly believed that HEIs in the global South engage less in the 2030 agenda than their Northern counterparts, often attributed to a lack of resources and prioritisation of other challenges, such as how to expand access in light of rapidly increasing demand. However, this research shows that HEIs in the global South are engaging with the 2030 agenda in a number of innovative ways that do not necessitate huge resources. These cases can therefore act as examples for the global North, in a reversal of the usual trend. This report will present case studies from the Latin America and the Caribbean, Africa and Asia-Pacific regions, to showcase how they promote health and sustainability through four key areas: Leadership, Staff & Governance; Campus, Community & Operations; Partnerships, Society & Engagement; Learning, Research & Students.

The HE sector has responded well to the Covid-19 crisis, including manufacturing PPE, allowing testing on facilities, providing expert advice, shifting to online teaching, supporting students with accommodation among many others. The question remains whether the same commitment to transforming to a greener economy and fairer society can be maintained. Among the following case studies and practices identified are examples of community collaboration, effective regional and global partnerships, innovative research agendas and organisational role modelling that can act as models for orienting HEIs globally towards the SDGs going forward.



METHODOLOGY

This report has been compiled using multiple qualitative methods for data collection. Data has been collected from various sources, such as internally produced documents, externally conducted studies or documentaries, and where possible semi-structured interviews with representatives from the HEIs themselves (Universidad de Veracruz, Earth University, University of South Africa, University of the South Pacific). Information was then triangulated for verification and presented in case study format.

In order to capture a good geographical representation of HE from the global South, three HEIs each from the regions of Latin America, Africa and Asia Pacific were chosen. Exclusion criteria employed were that HEIs had to be based in LMIC countries in the three regions and to be multi-disciplinary institutions providing post-16 education. It should be noted that this report focuses on innovative and exemplary practice and these HEIs' contributions to the SDGs are not limited to those mentioned in this report.



INTERDEPENDENCE OF HUMAN AND PLANETARY HEALTH

The Covid-19 pandemic, as well as other outbreaks this century, have highlighted the inextricable link between human and planetary health (WHO, 2020). There is increasing recognition that poor human health is linked to environmental causes, with 23% of deaths potentially attributed to environmental issues such as air pollution, poor sanitation, deforestation and other environment-related causes (WHO, 2016). This view was echoed in a 2019 UNEP report entitled *Healthy Planet, Healthy People*, which concluded that ‘a healthy planet is a necessary foundation for human physical, psychological, social, economic and emotional health and wellbeing, and is therefore critical for achieving all the SDGs’ (2019:5). The pandemic therefore represents an opportunity for renewed solidarity and action towards the goals, with the SDGs acting as the guiding principle for improving human and planetary health, managing the Covid19 recovery and minimising the risk of future outbreaks.

There is increasing consensus among supranational agencies and the scientific community that the Covid-19 recovery should adopt a One Health approach, in which the complex interconnections among the health of people, animals, plants and our shared environment are recognised (Settele et al, 2020). For this reason, this report uses a socioecological definition of health, encompassing physical, mental and social wellbeing (WHO, 2020) and the inextricable link between our health and the natural environment. Following this holistic definition, the



report aims to highlight the reciprocity between human and planetary health and where this relationship intersects with the other SDGs.

UNIVERSIDAD DE LA REPUBLICA URUGUAY

“PEOPLE’S HEALTH CAN
NO
LONGER BE SEPARATED
FROM THE
HEALTH OF THE PLANET.”

The Universidad de la Republica(UDELAR) in Uruguay is a publicly funded HEI which has a ‘constant concern to carry out and disseminate its studies on the problems of Uruguayan society, expanding its links with various social organizations (unions, professional and producer associations, cooperatives, etc.)’ (UDELAR, 2020). In order to ensure research serves existing societal needs, the program *Linked Research and Society*, facilitates interaction between researchers from all disciplines at the university, and actors in civil society in order to foster innovation. Unusually, undergraduates are encouraged to conduct research that complies with the UDELAR’s ethos of public service. This sees the university act as a donor for student research projects and has had a number of positive outcomes on health.

- Recent successes have been the formulation of cheap artificial skin, and software currently in use in Uruguayan hospitals using digital imaging to detect epilepsy (Arocena, Goransson, & Sutz, 2014).
- Collaborated with the Uruguay Ministries of Health and Education to assess the nutritional impact of school meal and create the National Social Emergency Plan, which reformed the food available in Uruguayan public schools (Arocena, Goransson, & Sutz, 2014).
- In 2019, 118 undergraduate projects were approved and financed by the university. Examples included a study on back pain among pregnant women and the effect of e-cigarettes on people aged 15-21.



EARTH UNIVERSITY- COSTA RICA

Campus, Community and Operations

Universidad Earth was founded in 1986 with joint funding from the WK Kellogg Foundation, USAID and the Costa Rican government. Spread over



3300 hectares of tropical land in Guacimo, it aims to fundamentally reorient higher education towards sustainable development (Earth University, 2013). The university has a unique educational model which combines scientific and technical expertise in agriculture and environmental management, development of entrepreneurial skills with commitment to the environment and social equality. For this reason Earth University accepts students from across the globe, often on scholarships from disadvantaged backgrounds.

- Students produce a business plan for a sustainable agriculture venture in their first year, which is then funded by the university and operated by the students on-site until they graduate.
- Students are immersed in hands-on learning alongside classroom theory. 75% of all learning is through hands-on problem solving.
- Self-sufficient services, such as restaurants where the food is sustainably sourced produced, cooked and served by students.
- After returning to their communities of origin many graduates had a positive social, economic and environmental influence and promoted the sustainable management expertise they learned at the university (Rodriguez-Solera & Silva-Laya, 2016)

UNIVERSIDAD VERACRUZANA- MEXICO

Leadership, Staff and Governance

Founded in 1944, the publicly-funded Universidad Veracruzana is spread over 4 campuses in the state of Veracruz on the Eastern coast of Mexico. Deliberately situated in areas where access to HE had previously been scarce, its mission is based on promoting social, cultural and gender equality, valuing local knowledge as complementary to scientific, fostering the use of indigenous

- The university embraces indigenous knowledge by collaborating on projects that study plants and preserve seeds.



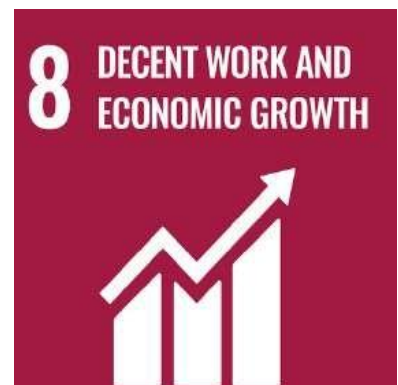
languages and following the principles of Buen Vivir. Meaning living well, it is a concept borrowed from indigenous cultures and political movements across Latin America which advocates harmonious living with nature. Research and operations at the university are influenced by collaboration with the local community.

- La Veracruzana has a policy of ‘linked research’, in which research must be rooted in the needs of the local communities the university serves. This demand side approach to research means academic staff and students engage in dialogue and knowledge sharing with the local community.
- University Houses, which are sites based in indigenous and rural populations where graduate students go to do internships in many disciplines, including sustainable agriculture and health sciences.

UNIVERSITY FOR DEVELOPMENT
STUDIES GHANA

Partnerships, Society and Engagement

The University for Development Studies (UDS) was founded in 1992 and has since spread across four campuses in traditionally impoverished areas of the country, in order to address the geographical inequalities of educational access that were heavily skewed to the South. The university was founded on principles of interaction and service to the community, and aims to reduce poverty by ‘blending the academic work with that of the community in order to provide constructive interaction between the two for the total development of Northern Ghana and the country as a whole’ (UDS, 2020).



- Its motto 'Knowledge for Service' permeates all its curricula, which have instrumental purposes with egalitarian principles designed to build healthy communities.
- Every course has a Third Trimester Field Practical Programme (TTFPP) that requires an 8 week field placement, in which students participate in identifying issues in impoverished communities and running projects to overcome them.
- Notable health examples have been interventions aimed at 'building healthy communities' by the Allied School of Health on nutrition and child and maternal health.

THE UNIVERSITY OF SOUTH AFRICA

Learning, Research and Students

The University of South Africa (Unisa) boasts a student population of nearly 400,000, making it the largest university in Africa. The majority of Unisa's courses are delivered via distance learning, using an Open, Distance and ELearning (ODL) approach. Founded in 1873 as the University of Good Hope, the university became the first public higher education institution to teach exclusively by distance in the world, which has allowed it to provide education to students irrespective of colour, gender or creed throughout South Africa's history (Unisa, 2020).

- Its vision is to be 'the African University in Service of Humanity' by overcoming regional inequalities in educational access and providing a flexible form of study that enables those often excluded from traditional study, as shown by 58% of its student body being female (Mawonde & Togo, 2019).
- In the Geography department, assessment is formative with students completing project work that requires real world problem solving in their local context. Such tasks require students to contribute to sustainability wherever they study from. Examples include locating an ecotourism site wherever they are situated and observing, analysing, evaluating and reporting on it.
- Through this approach, Unisa has harnessed distance learning as a powerful tool which extends the boundaries of the campus and with it the potential for student impact on issues of sustainability.



11 | MAKERERE UNIVERSITY- UGANDA

Partnerships, Society and Engagement

Founded in 1922, Makerere University underwent several revisions, before arriving at its largely privatised and market-oriented model today. Makerere was a pioneer of the ‘parallel stream’ model of funding in which public universities diversified their income streams by allowing enrolment from fee-paying students. Alongside a shift in funding came greater autonomy and funding for individual faculties and a curriculum that was responsive and instrumental to market need for skills (Mamdani, 2018). This is reflected in its current mission to ‘to provide innovative teaching, learning, research and services responsive to national and global needs’ (Makerere University , 2020). In recent years, its innovation and instrumentality have manifested in international collaborations with Johns Hopkins and Nottingham Trent universities, which have produced bilaterally successful health outcomes.

- Makerere’s use of community health workers as a form of disease prevention was studied and used at community health promoting organisations in Nottingham. Student and staff exchange visits have been coordinated and staff members have acted as guest lecturers on each other’s programmes.
- Johns Hopkins University and Makerere have collaborated on a number of innovative health promotion practices pilots, such as the use of peer to peer approaches to empower local communities to care for people dealing with HIV/AIDS and improving uptake to retroviral therapy in Uganda(Chang et al., 2010).



TERI SCHOOL OF ADVANCED STUDIES- INDIA

Campus, Community and Operations

The Energy and Resources Institute (TERI) began life as a not-for-profit research institute before being granted university status in 1999. With its motto 'knowledge for sustainable development', the university is the first of its kind in India to dedicate itself entirely to the study of environment, energy, and natural sciences for sustainable development. TERI has responded to the Indian government's call for sustainability to pervade all undergraduate university courses to ensure its rapid development respects the health of people and the planet. Since 2008 it has been based on a Green Campus in New Delhi, which aims to put into practice the principles taught in its classrooms (TERI, 2017).

- TERI's Green Campus boasts 10 well equipped laboratories including the Solar-Lighting Laboratory, which has tested more than 200 solar lighting systems for quality and assurance. It aims to be a node for development of solar lighting products for India and the whole South-East Asia region (TERI, 2017).
- The campus acts as an exemplary model for green technology in the design of its, energy conservation, water harvesting and waste-water recycling, such as an Earth Air Tunnel (EAT) cooling system and utilization of solar technology for heating water (Chhokar, 2010).



13| UNIVERSITI SAINS MALAYSIA

Campus, Community and Operations



Founded in 1969 as the second university in Malaysia, Universiti Sains is based in a 417 acre campus 10 km from Georgetown. The university changed its vision statement to 'Transforming Higher Education for a Sustainable Tomorrow'. This commitment to the 2030 agenda can be seen in its renovation of its vast campus into a healthy campus, which seeks to promote physical, mental, cultural and spiritual wellbeing through its physical environment, campus policies and activities. Through its settings approach to the campus environment the University in a Garden aims to contribute to human and planetary health and have a direct effect on learning, or as they put it 'Nature and knowledge are quite inseparable. Through nature, knowledge evolves'.

- Students interact with nature through mass reforestation, creation of an eco-trail and tree-planting activities embedded into undergraduate induction.
- A number of health programmes have been run on campus, such as antitobacco and obesity campaigns.
- A student-led campaign to ban disposable food containers has been replicated in other HEIs across Malaysia
- A love of nature is encouraged through educating students on the flora and fauna on campus, use of solar energy, conducting energy audits and the rehabilitation of lakes.



UNIVERSITY OF THE SOUTH PACIFIC

Partnerships, Society and Engagement

Island nations situated in the South Pacific are among the most vulnerable to the devastating effects of climate change. Most of the population of Pacific states live near the coast and survive on subsistence diets, meaning the damage potentially caused by rising sea-levels and destruction of agricultural land through flooding cannot be over-emphasized. Practical constraints such as distance



between islands mean access is often difficult. The University of the South Pacific strives to counteract these constraints by providing flexible higher education across 12 island states.

- USPNET is a flexible mode of distance study that has made higher education possible for many people in inaccessible areas. These include blended, online and print only for students without access to internet; half of the students at the university are enrolled in some kind of flexible study.
- Compulsory modules aim to preserve and disseminate the culture of the Pacific and to provide education for sustainable development that is relevant to the communities of island nations and their adaptation to climate change.
- The University set up the Network of Island Universities (NIU) and Pacific Centre for Sustainable Development (PACE-SD) which are regional collaborations designed to help resilience and adaptation to climate change and embracing Pacific knowledge across the whole South East Asian region.



5 KEY FINDINGS

These case studies have showcased a diverse range of HEIs, including public, private and third way institutions, who are each making unique and valuable contributions to planetary and human health. In the following section, key themes among the cases are identified and some suggested actions for HEIs globally are proposed.

HEALTH PROMOTING AND SUSTAINABLE CAMPUSES

HEIs can take a settings approach to campuses, in which health is prioritized in the built environment, services and operations. Opportunities to increase interaction between campus stakeholders and the environment should be taken, such as at the Universiti Sains Malaysia, where tree planting is incorporated into induction. Campuses can also act as a site for student engagement and leadership, as seen in student-run restaurants and agri-businesses at Earth University and health campaigns at various HEIs (Uni.

Veracruz, Sains Malaysia).

SUGGESTED ACTION

Campus, Community and Operations:

HEIs can transform their campuses into living laboratories in which campus services are provided by the students. Allowing space on campus for students to experiment with running services such as restaurants would give students valuable opportunities to apply their skills and provide agency over the campus as a healthy and sustainable space.

SUGGESTED ACTION

Partnerships, Society and Engagement

Many of the HEIs studied had a dedicated department whose primary function was to build partnerships with civil society organisations, in order that all functions of the institution are

COLLABORATION WITH THE LOCAL COMMUNITY

HEIs are often central parts of communities, however a number of HEIs in the research blurred the line between the institution and the community and enjoyed close bi-lateral relationships. At the Universidad de Veracruz, Mexico, Earth University, Costa Rica and University for Development Studies, Ghana students are required to complete placements and assignments, often in rural and deprived communities. Such interactions foster trust between the university and the local community and are opportunities for students to learn from existing sustainable practice.

rooted in local needs. Institutions that do so will increase community resilience and improve the quality of life of local people, which in turn helps to attract students and promote regional growth.

5

CAMPUSES AS LIVING LABORATORIES

Campuses themselves can act as organisational role models by testing new technologies and allowing students a space to experiment. At TERI, India its buildings are an exemplar of green technology and also function to teach students about these new technologies. At Universidad de la Republica, Uruguay and Earth University, Costa Rica the HEIs effectively act as donors for student projects, funding sustainable agriculture at the latter and research that serves the public good at the former. These HEIs act as



organisational role models of operational management and fostering student engagement with issues of health and sustainability.

VALUING LOCAL AND INDIGENOUS KNOWLEDGE

Higher education has sometimes been seen as antithetical to indigenous knowledge systems and an entity that removes people from their communities to place them in urban centres, thereby

SUGGESTED ACTION

Learning, Research and Students:

As seen at the above HEIs, living labs provide opportunities for applied learning and a testbeds for research and innovation., while also enhancing student employability. *The University Campus as a Living Lab for Sustainability – a practitioners Guide and Handbook*, by Verhoef and Bossert (2019) provides a useful framework for HEIs to become Living Labs.

SUGGESTED ACTION

Leadership, Staff and Governance:

HEIs should take a whole-system approach to health promotion in which health and sustainability permeates all decision-making surrounding healthy and sustainable living, working and studying environments, learning research and knowledge exchange and contributions to the wider community. The UK Healthy Universities Network has a range of resources to inform action towards a whole-system approach.

SUGGESTED ACTION

eroding traditional customs, culture and languages. In order to subvert these trends the Universidad de Veracruz, Mexico has foregrounded indigenous knowledge systems into their courses, research and operational policies. For example, the concept of a reciprocal and harmonious relationship with nature known as Buen Vivir features in the mission statement of Veracruz's Intercultural section.

HARNESSING DISTANCE LEARNING

Distance learning has come under renewed focus in HE globally, as a solution to delivering classes during the Covid-19 pandemic. While not without its problems, the University of South Africa and the University of the South Pacific have long been using remote learning as a means to expand access to marginalised groups. At Unisa, it is believed that distance education has much greater potential for encouraging students to have impact on the sustainability of their local areas, because campus students are confined to the boundaries of the university. This has been achieved by embedding problem-solving tasks on issues of sustainability into the formative assessment, most notably in the Geography department.

PARTNERSHIP AND COLLABORATION

SUGGESTED ACTION



Seen as central to all the goals, successful global partnerships and collaborations are evident in several case studies. Makerere, Uganda has seen successful collaborations with British and American HEIs that have yielded positive health outcomes among all parties. The University of the South Pacific is itself a partnership

Learning, Research and Students:

Rather than restricting the extent to which an HEI can act as a living laboratory, distance learning can expand the borders within which learning can have real societal impact. This can be achieved by embedding problem-based and applied pedagogy into course teaching and assessment on distance courses. The forced shift to distance learning caused by Covid-19 is therefore an opportunity to integrate this pedagogy into online courses.

Partnerships, Society and Engagement

While local engagement with civil society is key to addressing health and sustainability, international and regional partnerships like those seen with Makerere are also essential. Bi-lateral engagement and knowledge exchange can foster innovation by giving new insights and opportunities for learning. HEIs can build such relationships through global networks such as the SDG Accord, as well as regional sustainability initiatives.

of 12 countries, whose existence has massively increased access and promoted joint research and knowledge sharing in all of these states. Such partnerships will be key in tackling the 2030 agenda and recovering from the Covid-19 pandemic in the coming years.

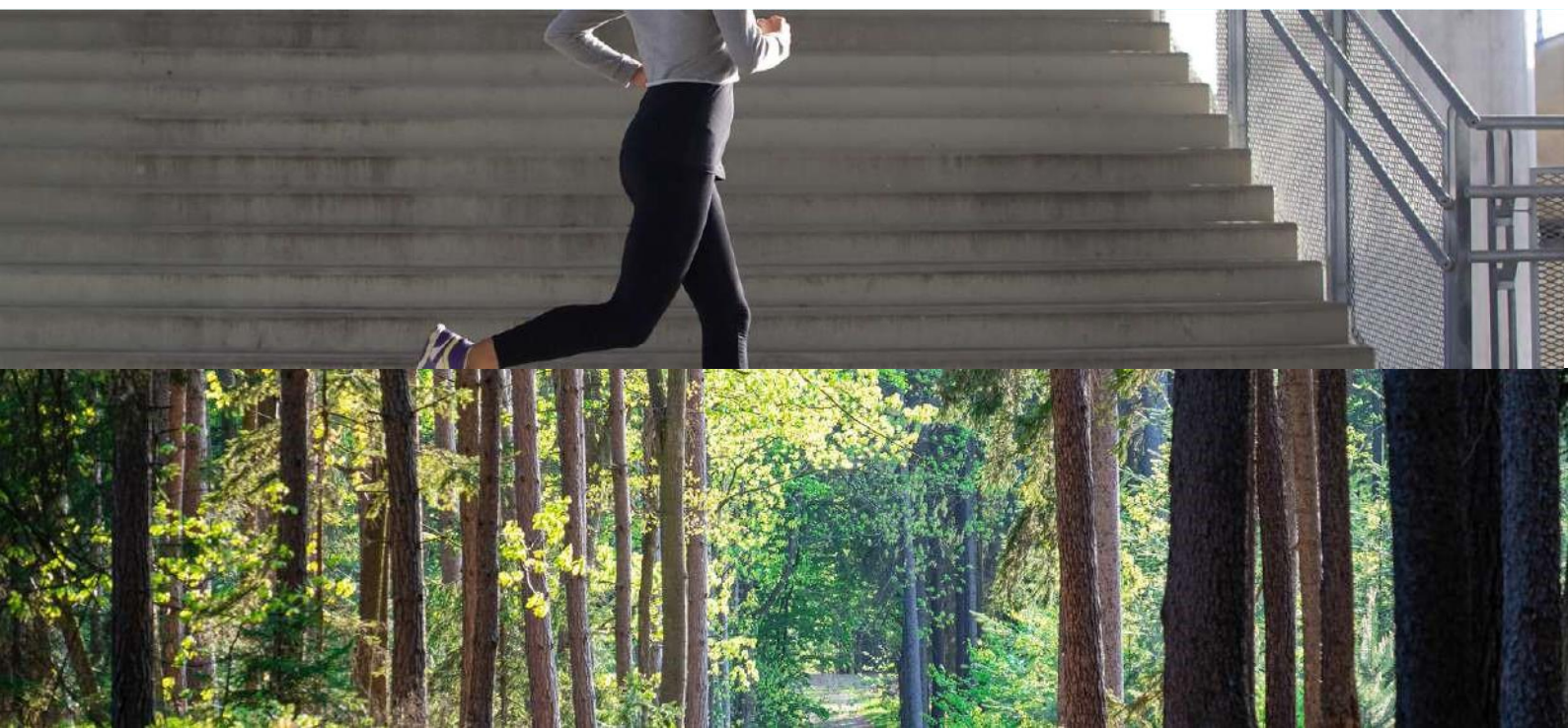
at the Universidad de la Republica, Uruguay research agendas are dictated by the needs of the Uruguayan population, with a specific department set up to link civil society organisations and the university in order to foster innovation, which has seen a number of positive health outcomes. At the Universidad de Veracruz, there is a similar policy of linked research, in which research must be shown to have a link with the public good, and the SDGs are increasingly being used as a touchstone for this.

APPLIED TEACHING AND LEARNING TO DEVELOP CHANGE AGENTS

Many HEIs in the research ensure learning is based in real-world scenarios with tangible impact by embedding application of knowledge into teaching and assessment. Integrating the maxim of 'learning by doing' the University of South Africa Geography department and Earth University have both made problem-solving project work a large part of assessment, meaning students are required to apply their knowledge in real world scenarios. At the University for Development Studies, Ghana and

DEMAND DRIVEN RESEARCH

With the trend towards privatisation of HE, there has been a move towards research that generates profit (McCowan, 2019). However,



time spent in the field have been embedded into the course structure to ensure students' learning emerges from relevant and realistic contexts, which gives graduates tangible experience they can use when approaching these issues in their working lives.

SUGGESTED ACTION

Learning, Research and Students:

The Universidad de la Republica's innovative funding of undergraduate research provides an exemplary model of how universities can promote student learning through research as part of the Living Labs approach. Where student projects are linked to the needs of the local population, they can create social, environmental and economic impact, while giving students skills to increase their employability.

Learning, Research and Students:

All too often learning that claims to be practical is in fact hypothetical. Vertically Integrated Projects (VIP) are a form of research-based education the University of Strathclyde has adopted from Georgia Institute of Technology. Students from all year groups work simultaneously on the same research project while gaining academic credit. When students graduate, new ones build on what has gone before, which allows for a high level of continuity and for teams to address bold research questions. The innovative model offers a method of integrating SDG research and applied learning within undergraduate curricula (Strachan et al, 2019)

SUGGESTED ACTION

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