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UNDERSTANDING ECONOMIC SUSTAINABILITY THROUGH THE LENS OF EDUCATION -INSIGHTS FROM HIGHER EDUCATION IN IRELAND

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ABSTRACT

The IPCC's 6th Assessment report reasserts overwhelming evidence that global warming is primarily due to anthropogenic activities causing imbalances in the carbon cycle. Our economic reliance on fossil fuels for industrialisation, urbanisation and farming exerts pressure on the Earth system. Population growth, affluence and technology represent significant sources of environmental pressure. Rapidly dispersed anthropogenic deposits constitute an alarming cause of modification of the Earth's crust, which has already become overwhelmingly dominant over nonhuman ecological processes. The current trajectory of socio-ecological interaction risks irreversible changes to the Earth system, where positive feedback may propel our life-supporting ecosystems beyond tipping points. The disappearing Greenland ice sheet, the clearing of the Amazon for farming, coral bleaching, the slowing of Atlantic thermohaline circulation and the melting of the Yedoma permafrost are highlighted as early warning signs.

Despite the continuance of environmental and humanitarian problems, there are opportunities for creative remedies to emerge in concert with our increased understanding of these problems. In this context, education is uniquely positioned to promote, envision, and lead change in the direction of the United Nations 2030 Agenda and the identified Sustainable Development Goals (SDGs). This paper critically examines the need for high-quality learning and teaching to support an effective Education for Sustainable Development provision. In particular, we seek to understand the importance of higher education in driving meaningful change, reflecting on Ireland's economic and educational model for fostering sustainability as a useful case-study.

Keywords: Economic Sustainability, Education for Sustainability, Sustainable Development Goals.

INTRODUCTION

The United Nations (UN) summit in Johannesburg in 2002 highlighted the importance of education as a catalyst for the world's robust economic development and sustainability framework (Von, 2004). Since the Johannesburg Summit, little has been accomplished, and nations' devotion to promoting sustainability objectives many of environmental and humanitarian problems remains as acute as ever. Education for sustainability (ESD) in higher education institutions (HEIs) faces some critical challenges when actively promoting and in particular concerning the implementation of sustainability practices that drive change (Mokski*, et al.,* 2023; Enberg & Harlap, 2021). Scholars involved in sustainability education encounter challenges such as a lack of agreed understanding and aims for sustainability education, a lack of institutional incentive systems, and a lack of financial and time resources. All of these are obstacles that need to be addressed if we seek to succeed in meeting the UN SDGs.

Education is identified as a key driver of the knowledge economy, and as such, it is a critical variable that deserves the attention of our political and economic leaders. In a knowledge economy, the value of education is linked to increased human-caused economic activity (Sibinga *et al.,* 2022). Likewise, there are significant links between education and economic development. An economy's long-term development is influenced heavily by its human capital, one of the externalities of the knowledge economy's production process that encompasses education, skilled labour, research, and training. Human capital underpins advancement and the maintenance of competitive advantages that have historically help nations to grow and progress. Furthermore, updated research studies provide evidence on how education contributes to empower workers as the need for more technically proficient professionals grows within our knowledge and digital driven economy (Li *et al.,* 2023; Wujarso*, 2023;* Zenkteler *et al.,* 2021).

The Irish higher education sector provides an interesting context to explore due to the country's successful story in transitioning from an impoverish economy towards one of the world's richest economies. Human capital is, arguably, Ireland's most valuable economic asset and it is a significant engine of economic, social, and cultural advancement. Ireland relies on a well-educated

workforce that can adapt to changing economic, environmental, and societal objectives. Yet, its higher education faces two main hurdles in supplying its populace with job-market credentials and skills. It has, at least until recently, suffered from persistent underfunding and the sector transition towards the tenets of neoliberal policies emerge as an area of concern (Chapman & Doris, 2019; Mercille & Murphy, 2017).

In this paper, we seek to critically evaluate Irish higher education and its initiatives to lead transformation for positive impact. Given the most recent regress from the SDGs, this evaluation is all the more urgent as it studies the Irish Educational Landscape to better understand the role HEIs may play in pushing the UN 2030 Agenda focused on driving sustainability. Having provided the context and outlined the objectives, the remainder of the paper is organised as follows. The discussion proceeds by offering some initial insights on the importance of the proposed research and the value of education in promoting sustainability. The analysis continues with a brief discussion on education for action and to drive meaningful change, and the research paper finalises offering some insights examining the case of Ireland.

EDUCATION TO PROMOTE ECONOMIC SUSTAINABILITY

Education is regularly cited as one of the first steps in the path of the development process (Berchin et al., 2021; Pizzutilo & Vanezia, 2021). Sachs *et al.* (2019) recognise education as a cornerstone in building and nurturing societies that foster the transformations to set us on the path to sustainable development, underpinned by socio-economic and environmental pillars. According to the United Nations Education, Scientific, Culture and Organisation (UNESCO), sustainable development is development that meets the needs of the present without jeopardising future generations' ability to meet their own needs (WCED, 1987). The Organization of European Countries Development (OECD) defines sustainable development as a long-term and global balance of development's economic, environmental, and social dimensions. It entails a broad view of human welfare, a long-term perspective on the consequences of today's actions, and full participation of civil society in reaching solutions (Vuuren, 2022). The World Bank recognises sustainability as a vehicle to reduce poverty and share prosperity, whilst meeting the needs of future generations, in which policies are inclusive with meticulously planned actions that seek to provide immediate and long-term benefits (Adedoyin *et al.,* 2021).

This research paper aligns with the ideas, themes and goals proposed by the world's institutions most relevant to sustainable development. For instance, the World Bank's initiative to support quality education; UNESCO'S initiatives focused on meeting societal through education and the OECD’s interesting advocacy for education that touches on the economic, social and

environmental aspects of sustainability. The consideration of the views of these organisations will be considered in this paper by recognising the interdependence of quality education with other sectors and various SDGs regarding economic dynamics, growth and development. Education is crucial to developing human capacities and boosting economic prosperity. The impact of education on economic growth include improvement in production efficiency and development of educated and trained individuals that possess the necessary technical, and technological know-how skills to use organisational resources efficiently (Osmani & Jusufi, 2022). According to Muringani *et al.* (2021) economic growth is strongly tied to education (as a proxy for human capital).

Education is viewed as way to promote both peace and prosperity. Raworth (2017) suggests minimum access levels to essential resources, such as energy, food, water an infrastructure are required to live with dignity, placing a social foundation for well-being within planetary boundaries. But to achieve the goals, strategies are needed to improve health and education, reduce inequality, and drive economic progress (Sari *et al.,* 2022). According to the UN SDG Tracker website, one in every five individuals in the world's less-developed economies lives on less than $1.90 per day. The UN SDGs are quite diverse with 17 goals and 169 targets to be met. The United Nations 2030 Agenda is very ambitious, and it leads towards significant debate as we consider how the world economies should start addressing the defined goals and targets. A natural question emerges: with which one the SDGs do we start? We argue that SDG 4 is critical to help us achieve the rest of the SDGs due to the generation of synergies and the multiplier effects that it creates. But to achieve change, we need educational models that drive action and impact, aspects that are examined in the subsection that follows.

Education for Change, Action, and Impact

At the UN General Assembly in 2015, the international community adopted the 2030 Strategy for Sustainable Development, also known as the UN 2030 Agenda. Warchold *et al.* (2022) explain that the SDGs represent a comprehensive collection of seventeen goals with 169 targets approved by UN member states as an international development agenda to be accomplished by 2030. Clark *et al*. (2022) highlight the interrelated nature of the goals, where actions to address one goal can lead to outcomes that affect other goals. In their simplest form, the goals seek to strike a balance between social, economic, and environmental sustainability. Moreover, the SDGs are intended to recognise the interdependence of human well-being, economic development, and environmental health. The awareness of interconnections between current challenges can be framed in the context of the SDGs. The emergence of nexus thinking as a lens for holistically addressing

interconnected and cross-cutting challenges (Veland *et al.,* 2022). For example, natural resources are being depleted, placing further strain on remaining natural resources to meet the needs of an increasing population. This creates positive feedback loops, accelerating the depletion of natural resources and the degradation of the environment, exacerbating climate change impacts and raising levels of conflict between nations.

Peoples' awareness of sustainability is enhanced by quality education, particularly in relation to the significance of developing economic models that are sustainable and in line with current requirements for the development and advancement of our modern society. We argue on the importance of increasing our understanding of the necessary skills, values and behaviours connected to environmental stewardship if we aim to promote and lead effective and significant transformation where the energy sector has a critical role to play. Energy emerges as a significant variable to consider due to the strong correlation between a country's economic and educational development and its energy consumption (Acheampong *et al.,* 2021). Energy requirements for developed countries with lesser educational attainment are lower than for those with strong economic growth and educational accomplishment nations. Furthermore, urban regions are heavily dependent on energy because of the fast economic growth and the needs of the dense urban population. Such high urban consumption of energy derived from fossil fuels that remain the dominant energy source, can degrade the urban environment, as shown by urban heat islands and increasing greenhouse gas emissions (Ekeocha, 2021; Kuddus *et al., 2020*).

Another relevant aspect to be considered relates to the interlinkages of the different SDGs and how they can lead towards socio-economic and environmental positive spill over effects. Zaidi *et al.* (2019) posit that health, economic growth, quality education, and climate control are top priorities. As a result, it is critical to pursue sustainable development in a manner that minimises health, energy, and environmental costs by developing new technologies and supporting quality education for future generations. Moreover, it is seen as essential that development in one area does not come at the price of progress in another. This is a difficult task, as the SDGs highlight targets and areas of interest that emerge as competitive in their own nature. As such, countries need to engage in a balancing act as they identify their priorities. SDG 3 (health and wellbeing) aims, for example, may be found in other goals like SDG 1 (no poverty), SDG 2 (zero hunger), SDG 6 (clean water and sanitation), and SDG 10 (reduced inequities) (ICSU, 2017). The SDGs were thus credentialed as a system of benchmarks with interconnections between areas of the economy, including synergies and trade-offs linked to their management (Fonseca et al., 2020), where interconnectivity is well ingrained into the SDGs' architecture.

A core consideration is how education emerges as a driver for action, change, and impact. As education promotes values of academic integrity and freedom, it provides opportunities to nurture critical thinking, questioning, and knowledge sharing. Therefore, the educational system offers significant opportunities to create a critical mass that is characterised by diversity of skills to develop new ideas for social change through bold experimentation (Fitzgerald, 2022). Education has also been central to fostering technological advancement (Ivanova & Rimanoczy, 2022). Diemer *et al.* (2020) and Adiqa (2011) argue that to achieve economic sustainability, educational institutions need to have the capacity to educate for sustainability. In addition, we argue that educational systems need to acknowledge financial and economic inequalities as a driver of exclusion and a contributor to increasing socio-economic imbalances. Consequently, efforts are needed to provide appropriate mechanisms that do not exclude those with insufficient resources to afford quality education. We also argue that, to achieve desired change, HEIs should offer a holistic education provision that integrates different areas of expertise into a common interdisciplinary environmental, economic, and social educational model. Pohl *et al.* (2021) claim that an interdisciplinary approach to research entails the creation of descriptive, normative, and practice-oriented knowledge to aid in issue-solving, risk mitigation and problem prevention. To do this, one must have the ability to comprehend the sophistication of challenges, take into consideration the uniqueness of science based and real-world challenges, connect conceptual and contextual insight, and establish techniques that endorse what is viewed to be the public benefit.

Education for economic sustainability requires further attention, as there is a need to identify how sustainability can be embedded in the local business community (Rahman *et al.,* 2022; Allen *et al.,* 2019; Hopkins & Mc Keown, 1999). Teaching methodologies and curricula must be tailored to the community's needs, for instance, increasing awareness, community integration, and social adhesion while equipping individuals to live, work and conduct business sustainably within their communities.

Education to Build Sustainable and Peaceful Societies

As we seek to explore further the role of education in building more sustainable societies, it is interesting to examine the UN 2030 Agenda and how updated research studies are considering it. For example, Serafini *et al.* (2022) argue that education is critical to accomplishing Agenda 2030's other goals, which means that education can be considered the key to articulating the remaining 16 SDGs. Sharing the same line of thought, Artyukhov *et al.* (2022) explain that SDG4 aims to ensure an inclusive and equitable society; moreover, the goal aims to promote lifelong

learning opportunities for meaningful change. Mmari *et al.* (2022) assert that quality education is essential for sustainable development, and that the role of teachers, teacher educators, and curriculum is critical in accomplishing the aim of inclusive and quality education. The SDGs are conceptualised as a network of interconnected goals. Hence, by enabling and promoting synergies, the SDG goals' interrelated nature opens the way to creating co-benefits in execution rather than being viewed as merely a compilation of objectives and targets (Scharlemann *et al.,* 2020). The reviewed literature shows how SDG 4, which focuses on acquiring quality education, is a crucial component of the UN's Agenda 2030.

Educating people about the value of healthy nutrition and sanitation yield benefits from progress toward SDGs relating to energy, cities, and infrastructure. Education is more resilient in the long run if other SDGs are implemented to combat hunger (SDG 2), provide clean water (SDG 6), and improve health (SDG 3). However, disparities in accessing high-quality education negatively impact the success of the SDGs (Kohl *et al.,* 2021; Shulla *et al.,* 2021). So, many of the SDGs place education at the centre of this global plan for long-term development. Menon and Suresh (2022) add further insights, suggesting that HEIs should provide a conceptual educational framework for sustainable development and lifelong learning opportunities. They must also lead by example by adopting sustainable communities themselves. HEIs play an increasingly important role in achieving new global goals because education generates leaders and professionals committed to sustainability across all sectors (Nejati & Nejati, 2013). Research studies suggest that higher education plays a prominent role in society, with potential to directly impact the SDGs (Mallow *et al.,* 2020; Ramasio *et al.,* 2019). According to Sustainable Development Solutions Network (SDSN) Australia/Pacific, (2017) HEIs provide a far substantial contribution to the SDGs, as they not only add to the success of each goal but also to the execution of the SDG framework itself. Moreover, Mori et al. (2019) and González-Torre *et al.* (2022) highlight the significance of HEIs in embracing, advocating, and promoting the UN SDGs.

As previously explained, SDGs are tied to environmental, economic, and social sustainability factors. SDG 4 (education quality) is also linked to other SDGs. Furthermore, education is connected to the SDGs on social sustainability: SDG 2, no hunger, SDG 8, decent work and economic growth, and SDG 3, good health and well-being. The connection between education and sustainability is integral to SDG 4, particularly SDG 4.7, ensuring that all learners acquire the knowledge and skills required to promote sustainable development. As we reflect on the importance of different SDGs, once more we align with the idea that education emerges as the enabler of the UN 2030 agenda. There is a need to reconsider existing investment strategies and

their significance to the development of human capital, and that means that more resources are needed to support education and research activities. Recognising the need for holistic approaches, we argue that ESD should be based on a paradigm that offers comprehensive education, guiding students' learning across all stages and segments of schooling and takes place in a supportive classroom culture. This is especially significant, since ESD should foster a constructive viewpoint in which information is only one aspect and is combined with mindsets, values and skills needed for long-term transformation, as well as promoting sustainability competencies.

CORPORATE SOCIAL RESPONSIBILITY AND GOVERNMENT SOCIAL RESPONSIBILITY

Sustainability, corporate social responsibility (CSR), government social responsibility (GSR), and business ethics have long been related touchstones in industry and academia (Mogaji *et al.,* 2021). Arguably, the SDGs represent an 'indivisible whole', a network of connected goals that can only be attained in concert (Bornemann & Weiland, 2021). The context of CSR in higher education includes a variety of initiatives aimed at developing skill sets, attitudes and actions among students, faculty, and institutional leaders. This may be seen in the increasing integration of social education, service learning, volunteerism, and collaborative learning within the curriculum (Pizzutilo & Venezia, 2021). Existing studies show evidence of multiple education procedures that have been amalgamated across GSR and CSR policies, in which the GSR establishes legal structures and the CSR defines the trajectory under which HEIs move in accordance with sustainability (Avelar *et al.,* 2022; Fonseca et al., 2021; Leal Filho *et al.,* 2021).

Regarding CSR in higher education, Ireland provides a useful case to explore. The 1997 Universities Act introduced several goals, such as enhancing society's cultural and social life. The Act aimed to facilitate economic, environmental, and social growth, and disseminating research findings Cromien (2000) mirrors flaws in policy formation at Ireland's Department of Education and Science. Cromien (2000:2) highlighted that the *'department is so concentrated on dealing with short-term and operational difficulties that it appears to lack room to take a balanced approach to policy formulation.'* The number of researchers in Ireland who work on educational research, such as policy-relevant studies, is about average for a country its size (OECD 2020, 2007). Yet, public investment in social sciences is particularly low when compared with public investment in science, technology, engineering, and mathematics (STEM) research (O'Connor, 2022; Eurostat, 2020). Considering the percentage of higher education research and development budget expenditure by areas study, social science receives 18 per cent of funding whereas STEM receives 69 per

cent (Department of Enterprise Trade and Employment, 2021). The Chief Inspector's report at the Department of Education, published in March 2022, highlights the chronically insufficient provision of teacher Continuous Professional Development to complement the work done in schools to serve students with special educational needs. There is a clear need to help schools comprehend and promote ESD (Department of Education, 2022). The modest output of peer reviewed educational research in higher education in Ireland is spread thinly across the universities and other institutes of higher education in Ireland (O'Connor, 2022). Furthermore, the integration of research into undergraduate and postgraduate education requires enhancement if Irish Higher education is to contribute more effectively to pressing sustainability issues.

Experts acknowledge that CSR creates significant problems for HEIs. For instance, HEIs are required not merely to generate graduate expertise, but to build an open-ended communication across the dividing line between the HEIs and wider society (Dmytriyev *et al.,* 2021; O'Connor, 2022). Dmytriyevet al. (2021) argue that the government must keep up with the rapid pace of development in information technology. However, unlike companies, governments are hampered in their abilities to manage and lead because long-term objectives are abandoned in favour of short-term frameworks. The public sector needs critical reform in its policy formulation. The genesis of public policies needs to be established from credible evidence bases that are current and from relevant studies, communicated through research findings. These should form the bedrock of public education policies capable of stimulating legislative debate (O'Connor, 2022). It is critical for HEIs to have coordinated efforts to accomplish the SDGs, by recognising that education is a *'key to success'* for responsible leaders capable of collaborating and promoting long-term sustainable growth.

EDUCATION FOR SUSTAINABILITY IN IRELAND

This section offers insights regarding ESD in Ireland. Research suggests that Irish HEIs need to align with corporate and government stewardship in pursuit of more ambitious approaches to long-term ESD policy. HEIs cannot be considered entirely distinct from economic activities or disconnected from the needs of our financial systems and, therefore, need to extend beyond their traditional remits (Bahmani & Hasanzade, 2022; Cochran, 2021; Hidalgo, 2021). Eggins & West (2010) highlight the long-term repercussions of the 2008 Global Economic and Financial Crisis (GECF) for HEIs. Beginning in 2009, five successive budgets in Ireland deployed austerity measures in response to the GEFC. To date, measures that have touched all Irish public employees include an extra income levy (up to 6% of salary) and a doubling the health levy (up to 5% of income). Both were introduced in the 2009 budget before being merged into a single

‘Universal Social Charge’. Education accounts for almost 20% of overall government spending, following only social welfare and healthcare. Because the state funds the bulk of Irish education, all public sector budgetary policies directly influence Irish education (CSO,2021,2009).

Hopkins & McKweon (2001) argue that great efforts are needed for any education system seeking to pursue successful ESD. The Irish government introduced ESD as a strategic goal over a decade ago, recognising early a need for every individual in Ireland to have access to education, to learn about their rights and duties as global citizens, as well as their ability to affect change for a more fair and equitable world (Department of Education and Skills, 2007:28). However, a recent OECD (2021b) study indicates that Ireland lags in education investment; the expenditures on education were approximately 3 percent relative to GDP, in contrast to the 4.5 percent OECD average. Darmody *et al.* (2021) claim that the effects of the Global Health Crisis in 2020 have emerged as a wake-up call for the Irish government. Its ongoing effects have helped to expose shortcomings regarding digital infrastructure, with worrying insights regarding emerging disparities in the national, sectoral, and educational fields. In addressing these shortcomings, a second National Strategy for ESD was launched in 2022, this time with a detailed implementation plan focused on advancing policy, transforming learning environments, building educator capacity, mobilising young people and accelerating local action (Department of Education, 2022). Several universities have assumed leadership roles in advancing the ESD agenda. University College Cork, NUI Galway and TU Dublin all appear in the Times Higher Impact rankings. TU Dublin’s inaugural strategic plan is written through the lens of the SDGs (TU Dublin, 2019).

Rose *et al.* (2015) explore the issue of diversity, equality, and inclusion in Ireland, affirming that SDG4 asks for inclusive and equitable quality education and the promotion of lifelong learning opportunities for everyone by 2030. Many instructors are hesitant to educate pupils with special needs or from diverse ethnic backgrounds. This leads us to critique the Irish government's role in investing and developing strategies that respond to a growing and diverse society and the need to examine and gather evidence and track progress on policies that drive outcomes in order to implement the 2030 Agenda (Howe & Griffith, 2021; Murphy, 2019; Rose *et al.,* 2015). Fleming (2020) review existing educational shortcomings and the importance of offering more support to Irish higher education as it seeks to contribute to the SDGs. *The role of higher education in achieving the SDGs is based on landscapes, policies, and systems that interact with each other. HEIs partake in many initiatives, including environmental stewardship, gender equality, quality education, and improvement. As such, universities play a social and economic role in establishing upcoming generations and preparing future leaders for sustainability transition (Murphy, 2019).*

Academic institutions are well-positioned to form strategic alliances and, therefore expand their footprint well beyond the ideological bubble of academia (Budihardjo *et al.,* 2021). However, Irish HEIs are confronted with significant issues, such as budget limitations, increased expectations, gender imbalances, and the impact of COVID-19 exacerbated existing inequalities (CSO, 2020e). HEIs operate in a competitive market, compounded by the necessity to raise finances from various sources in the face of declining government support and in alignment with corporate goals. Individuals on campus are also under stress. Academics are expected to publish in prestigious journals, get research funding to advance their careers, and catapult their institutions into the international and global rankings lists. As a result, learning and teaching receives less attention, which has been particularly difficult in Ireland due to higher student-staff ratios than elsewhere (Goulart et al., 2022; Tomlinson & Watermeyer, 2022; Kwiek, 2021).

In 1995, Ireland begun removing full-time undergraduate tuition fees. These fees represented a twenty percent increase above the standard rate at public flagship universities in the United States at the time. At the same time, tuition costs were shifted to a system of registration fees charged to every student. Despite the fact that these expenditures were just $200 in US dollars at the time, which is equivalent to $3,600 in US dollars now, the underlying worth of these expenditures has grown by a factor of 10. This is more than most EU nations now charge, yet lower than the normal tuition levied in the United States (University World News, 2021). Another major source of worry is the growth in mental health issues among students as they confront pressures such as transitioning to college, tuition, loan debt, test stress, and a highly competitive job market (IUA, 2020). Further significant aspects to consider relate to gender inequality and its effects in many spheres of society, despite the introduction of equality legislation (European Commission, 2021). Women are under-represented in technical occupations, accounting for 24.9% of self-employed professionals in STEM. Moreover, women are underrepresented in academic institutions at the highest academic levels (26.2 percent), reflecting the global issue of gender inequality in higher education (European Commission, 2020b). The 2030 Agenda provides an opportunity for universities to reassess their position as institutions of higher learning and shed light on the benefits of incorporating principles and practices for sustainability in their mission and core values. In light of this, Irish universities have recently initiated efforts to help bolster obligations to sustainability by establishing a wide range of digital resources to assist teachers and administrators with integrating the SDGs into curricula. Ireland’s National Forum for the Enhancement of Teaching and Learning in Higher education has recently launched a digital badge in ESD aimed at building educator capacity. Technological University (TU) Dublin has already started and implement the SDGs and include the concept of sustainability into its courses,

programmes, events and projects, policies, and campus management plans, all of which have an impact on the 17 SDGs.

Furthermore, formal CPD for academic staff and informal communities of practice (Behan et al., 2022) have been rolled out across its faculties, providing space for consideration of the SDGs in curricular, co-curricular and extra-curricular offerings. The university has been among the first to appoint a vice president for sustainability and is actively building out an organisation design to achieve its strategic intent to 2030. TU Dublin, Ireland's first Technological University, has begun to consider how to address and implement SDGs and includes the concept of sustainability within its curricula, initiatives, events, projects, governing bodies, strategies, and campus management plans that are impacting the 17 SDGs (TU Dublin Report, 2021). The University access service, which assists communities in overcoming socio-economic barriers to higher education, and the TU Dublin Foundation, which involves multiple projects to improve the experience of students by promoting education for marginalised communities, assisting in the transformation of educational facilities, and helping communities in developing closer links with TU Dublin (TU Dublin Report, 2021). Furthermore, the university has specific journals dedicated to sustainability issues that contribute to the dissemination element of research contributions in the area.

Several networks have begun to assemble good practices and cases from HEIs to serve as role models for other academic institutions. The main goal is to contribute to how they can take action. For example, in 2021, Trinity College ranked 57th globally for implementation of the Sustainable Development Goals, 5th in the world on gender equality and 26th in the responsible consumption and production by the Times Higher Education impact rankings. The reviewed literature shows encouraging evidence on progress made. Still, there are some constraints as well. For example, access for low-income students was the driving force behind Ireland's decision to make higher education completely free in 1995 (University World News, 2021). In spite of this, historical data shows that Ireland has had very little growth and the percentage of students from low-income homes attending college has increased over the past two decades, they are still vastly outnumbered by those from affluent backgrounds (HEA Newsletter, 2022). In terms of the quality of education, the Irish Higher Education System Performance Framework are receiving extremely positive feedback from participants in international debates (European Universities Initiative, 2021). However, the moderate rise in resources coupled with a far more rapid growth in enrolments over time has put a strain on the system. This has resulted in greater student-to-faculty ratios and degradation of numerous facilities and pieces of equipment (RIA, 2021). However, after

the implementation of free tuition, many people have seen a decline in standards at Irish institutions (University World News, 2021).

Furthermore, efforts to provide students with an education free of tuition were to be successful, the government would need to continue investing enormous sums of money in order to compensate for the tuition costs that students would have been required to pay and to provide educational institutions with more resources (European University Association, 2021). If there is not a substantial financial commitment made over a long period of time the level of quality within the educational sector will suffer, especially if the number of students dramatically increases. When tuition fees were done away with in the 1990s, Ireland's modest registration fee appeared like a fair approach to ensure that students would still pay certain costs (University World News, 2021; OECD Education at a Glance, 2019). However, due to the rapid increase of registration fees throughout time, a significant portion of the money that would have been spent on tuition has been substituted by these fees instead. Therefore, receiving a higher education in Ireland does not come cheaply anymore. In this way, Ireland is comparable to a number of other nations and states in the United States, such as California, in that tuition is not paid but fees can be rather expensive (Zurich Cost of College Education in Ireland survey, 2022).

Additionally, there appears to be a discriminatory approach in the payment of tuition fees in Irish education because of the imposition of different types of fees depending on nationality; for example, undergraduate tuition and fees in the EU are capped at €3,000 per year, whereas those of overseas students might pay between €25,000 and €55,000 per year (University College Cork, 2021). In light of this, universities have become too dependent on tuition revenue as a result of the drastic reduction in public funding for higher education on an individual basis, and it is acting as a source of economic and financial exclusion. This may birth reputational harm to the entire breadth of the student experience attending colleges in Ireland (Irish Times, 2020). As a final thought, we reflect on the value of education and its significant role to foster economic growth and development and the mismanagement of human capital as a significant amount of the population that cannot afford an education is neglected, clearly failing with the UN vision of “leaving no one behind”.

CONCLUSIONS

A solid, long-term ESD policy in Ireland requires HEIs to collaborate with the private and public sectors. HEIs are intertwined with economies and monetary systems. Ireland implemented austerity measures in response to the Global Economic and Financial Crisis including new taxes

on the salaries of government workers. These policies had an impact across all industries, including education. Despite government efforts to reinvest in higher education, funding levels are still below what they were before the 2008 recession, putting pressure on schools with rapid enrolment increases.

Policymakers and corporations, too, are critical in driving the SDGs and contributing to professional growth, hence, it is imperative to encourage students to understand and act in favour of sustainable development and have a voice in sustainable governance. There is a need to develop a social and cultural environment where education becomes central to accomplishing meaningful progress towards SDG 4. The educational system should help individuals to comprehend the benefits of quality education for economic sustainability, allowing them to make educated decisions that lead to sustainable actions that create impact and drive transformation. People require capabilities to begin action, assume responsibilities in nurturing educational sustainability, engage, collaborate, and effectively communicate and empower others to act to contribute to developing a more sustainable socio-economic and environmental system. To ensure that individuals and society are able to develop such competencies, education should focus on the interrelated cognitive and affective elements of learning by supporting interpersonal skills that lead to sustainability awareness.

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