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Education for sustainable development: Insights from Canadian and South African universities

Abstract

Universities can play a key role in contributing to a sustainable future for our planet and its inhabitants. In times of constant changes, there is a growing urgency to reflect on the vision of universities as well as their respective practices and projects that can promote the creation of sustainable societies. As is evident in scholarly literature, there is a need to empower universities and enhance their ability to prepare individuals who can confront global sustainability challenges and pursue sustainable development. The United Nations' adoption of the 2030 Agenda for Sustainable Development in 2015 recognised that societal problems were territorially blind, meaning that no country has sufficient knowledge or research capacity to solve all challenges on its own. To that end, this qualitative, comparative research study represents the unified effort of two very different countries to explore the topic of education for sustainable development (SD) at universities. The study employed a document analysis of selected publicly funded universities in Canada and South Africa. Gathered documents are from the past seven years and include the universities' mission and vision statements, annual reports, and strategic plans. The three main questions addressed in this work are: (a) What is the status and role of higher education for SD in Canada and South Africa? (b) What areas of SD are on the agenda of universities under investigation in Canada and South Africa? (c) What are the main similarities and differences between the two contexts under investigation? Findings indicate that universities focus on several aspects of SD, namely sustainable education, sustainable relationships, and sustainable initiatives. The paper discusses these areas for each country in connection to their contextual setting. Although the study's findings cannot be generalised, they can be informative for other universities and contexts and thus contribute to the body of knowledge about education for SD in higher education.

Keywords: *sustainability, education for sustainable development, higher education, UN's 2030 Agenda, document analysis, comparative studies*

1. Introduction

In response to growing environmental challenges, nations around the world have committed to sustainable development (SD). The collective commitment is evident in

193 countries formally adopting the United Nations' (UN, 2021) 2030 Agenda for Sustainable Development with the intention of alleviating existing challenges and building sustainable future. Propelled by the UN's 17 Sustainable Development Goals (SDGs), Agenda 2030 seeks to integrate development, peace, social justice and human rights (Ferguson & Roofe, 2020; Zermeno & de la Garza, 2020). The 17 SDGs are meant to protect and promote the interests of the most vulnerable people and to safeguard the planet.

As we continue to experience the global impact of climate change, exploitation of the natural world, and social inequalities, many discussions across disciplines focus on sustainability. As commonly known, education plays a pivotal role in the development of any society and its capacity to overcome the most pressing challenges. Without a doubt, the Covid-19 pandemic has exacerbated challenges and revealed inequalities in developing as well as developed countries. The UN member states have identified education as a fundamental instrument to promote social, economic and environmental emancipation of countries (Novo-Corti *et al.*, 2018). Furthermore, education as a discipline has started to pay special attention to the implementation and practice of sustainability principles. As indicated by Hensley (2017: 3), for sustainability to be achieved, education systems must nourish students' capacities to participate in the discourse and action towards equal economic and social opportunities and to assume stewardship of the planet.

It is important to recognise that although sustainability in education has gained ground, most research studies still explore primary and secondary levels of education in relation to sustainability. Based upon the literature review about higher education for sustainable development (HESD) in Canadian and South African contexts, we recognise the power universities have in nurturing teachers, researchers, future leaders and decision-makers, who are equipped with the knowledge and skills that will allow them to make sustainable decisions and take sustainable actions. Marques *et al.* (2018) emphasise the importance of research at higher education institutions (HEIs), which has the potential to inform citizens about their responsibility in environmental, social, and economic stewardship. The authors further note that the attitudes and actions of HEIs towards SD can serve as an example to other institutions and citizens. Engaging with the literature, it became evident to us that there is a need to empower universities and enhance their capacity to prepare individuals who can confront global sustainability challenges. We also learned that societal problems are territorially blind, meaning that no country has sufficient knowledge or research capacity to solve all challenges on its own. To that end, this comparative study discusses the unified effort of two different countries to explore the topic of HESD.

The purpose of this study is to explore through document analysis the nature of sustainability mandates and compare the role of sustainability in selected publicly funded HEIs in one province in Canada and one province in South Africa. We seek to understand the contribution of universities to SD through their stated public commitments, vision and mission statements, and strategic plans.

The next section provides a concept review and contextual background for both countries, namely developed Canada and developing South Africa. The subsequent section presents the research design and methodology employed in this research. The findings section is divided into three parts, corresponding to each research question. The key considerations and conclusion section culminate this work.

2. Review of concepts and contexts

Education plays a major role in the development of any nation. The UN member states have identified education as a fundamental instrument towards countries' social, economic and environmental emancipation. Given the importance of education in nationhood and citizenry, as well as the global concerns about the human impact on the natural world, education in the last decade has become an important "pillar for ensuring sustainable development" (Novo-Corti *et al.*, 2018: 817), because this is a space where citizens learn about our shared responsibility to the environment. "Studies conducted in the twenty-first century are showing a direct link between the investment in education and economic, social and human development" (Novo-Corti *et al.*, 2018: 817).

There have been debates regarding the attribution of the term sustainability (Novo-Corti *et al.*, 2018) and these can be framed as social sustainability, sustainable living and sustainable future, among other broad definitions. For the purposes of this study, sustainability "involves ethical issues, aiming to achieve a balance between generations in the distribution of wealth, working conditions and human rights" (Kopnina, 2014: 931). SD, in turn, refers to a vision of the development of populations, species of animals and plants, ecosystems, natural resources, and to a vision that integrates concerns such as poverty alleviation, gender equality, human rights, education for all, health, human security and intercultural dialogue. (Novo-Corti *et al.*, 2018: 818)

Education for sustainable development (ESD) refers to education systems that privilege SD across disciplines and education mandates (McGrath & Powell, 2016). Such privileging of ESD includes institutional strategic plans as well as vision and mission statements. ESD aims to instil in students the skills, knowledge, and attitudes that will enable them to make sustainable decisions and take sustainable actions (UNESCO, 2012). ESD as an education movement stems from the need to prioritise the responsibility, transparency and active involvement of various organisations worldwide in a global effort to change the negative effects of human activities on the environment (Daub, 2007). It is important also to acknowledge the debates within public sectors globally regarding ESD from a demand for a higher level of commitment to a demand for action plans based on the principles of SD (Ball & Grubnic, 2007).

SD is an educational movement involving the Sciences, Economics, Business, Cultural Studies, Health Sciences, Political Sciences, Social Studies, Humanities and all other disciplinary areas. ESD is also a "field of distinctive research" (Kajikawa, 2008) encompassing methodologies that connect knowledge of ESD with action and emphasising the impact of environmental issues (Azeiteiro *et al.*, 2015). It is notable that there are correspondingly fewer studies emphasising integration of ESD across curriculum and pedagogy (Wu Jim & Shen, 2016) and few studies exploring the value that education places on integration of ESD within systems across global contexts. These are notable gaps, and we agree with Jämsä (2006), who asserts that ESD is or should be a fundamental feature of ethical and moral education.

Scholarly literature refers to ESD as the method with the most potential to change the mentality of citizens, nurture sustainability-related competencies, and achieve the long-term goal of sustainability (Novo-Corti *et al.*, 2018). ESD is a lifelong learning process that entails transformative teaching and learning methods that focus on critical thinking and thorough reflection, as opposed to traditional approaches (Lu & Zhang, 2013).

2.1 Canadian context

Canada is considered a 'developed' country (Education in Developing Countries, 2021). The Canadian context of education is categorised as pre-school or early childhood education, elementary education, secondary education, and postsecondary or tertiary education, which includes college and university education generally referred to as higher education. "The Canadian 'system' of higher education is highly decentralized" (Jones, 2014: 1), meaning that the operations and functions of higher education are under the purview of individual provinces, with differing mandates, institutional structures, and provincial ministry regulations. Canada also "boasts one of the highest participation rates in postsecondary education in the world, with widely respected university and college sectors" (Jones, 2014: 1). Canada has approximately 223 public and private universities (Council of Ministers of Education, Canada [CMEC], 2022). While there is no unified vision statement for all tertiary institutions in Canada, and as each province has its own mandate, there are common values among universities related to Canada's societal values. For example, in the last decade, two prominent areas of interest affect tertiary education in Canada: (a) The Truth and Reconciliation Commission (TRC) of Canada's Final Report on the Indian Residential School (IRS) systems and (b) EDS.

Commonly referred to as "Canada's greatest national shame" (Stanton, 2011: 1), the IRS institutions were places where First Nations, Metis and Inuit children were forced to go by legislative authority (Royal Commission on Aboriginal Peoples [RCAP], 1996). The goal of these schools was to "civilise" and to "kill the Indian in the child" (RCAP, 1996). Mental, sexual, physical and emotional violence and neglect were rampant in IRS institutions, resulting in both immediate and intergenerational trauma (Bombay, Matheson & Anisman, 2014; RCAP, 1996). The IRS system operated from the 1880s until the last institution closed in 1996. The TRC was later established with a mandate to inform all Canadians regarding what happened at IRS institutions. The TRC documented the truth of survivors, their families, communities, and anyone personally affected by the residential school experience. The TRC concluded its work with a Truth and Reconciliation Report (TRR) and 94 Calls to Action, focusing on education, reconciliation, and decolonisation (Truth and Reconciliation Commission of Canada, 2015).

After the TRR was released, all institutions in Canada have been encouraged to 'indigenise' and to answer the 94 Calls to Action. Indigenisation refers to a:

> Process of naturalizing Indigenous knowledge systems and making them evident to transform spaces, places, and hearts. In the context of post-secondary education, this involves bringing Indigenous knowledge and approaches together with Western knowledge systems … Indigenous knowledge systems are embedded in relationship to specific lands, culture, and community. (Antoine *et al.*, n.d.: 6).

In addition to answering to the TRR, and as Canada continues to experience the effects of climate change and environmental degradation, sustainability has had an increasing prominence politically, economically, socio-culturally and in higher education. The CMEC formally outlined a federal education-focused strategy to promote EDS goals that align with the UN's (2015) 2030 SD Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

2.2 South African context

South Africa is a developing nation with the most advanced economy on the African continent. The country's education system is comprised of elementary, secondary and tertiary-level

education, encompassing 26 public universities located across South Africa's nine provinces. Within a South African context, it is essential to recognise that the country has one of the most unequal social and education systems in the world as a direct result of apartheid. The country has been deeply affected by a history of political exclusion, racial and class discrimination, and inequality. Apartheid laws resulted in a highly unequal education system that prepared citizens for different and unequal roles within society, depending on their race and ethnicity. The inequality was also evident in differentiation between institutions in terms of financial resources and their allocated roles in society. The post-apartheid era heralded a commitment to decolonisation and thus the elimination of colonial elements causing injustice and inequality. Efforts are continually made to foster accessible and inclusive educational opportunities. As indicated by the Department of Environmental Affairs (DEA, 2016), from 1994, in transitioning to democracy, South Africa has strived to create an inclusive society, providing previously disadvantaged people with access to quality education, health services, and fulfilment of other basic needs. In 2008, the country adopted its vision for a sustainable society which emphasised the interconnectivity of all systems (economic, socio-political and ecological):

> South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration (DEA, 2008: 19).

Regardless of its commitment to sustainability, South Africa struggles to achieve sustained levels of economic growth and has been labelled as one of the most unequal countries in the world (Statistics South Africa, 2019). Having said that, it is important to acknowledge that the country shows promising progress towards SD. Scholarly literature (DEA, 2016; Statistics South Africa, 2019) provides evidence that ESD in South Africa has grown in quality and scope, which is reflected in the country's legislation and policies as well as its commitment to the SDGs. To start with, South African legislation and policies entail laws that reflect and promote SD and bring attention to issues such as human rights, environmental conservation, gender equality, peace building, and social justice (UNESCO, 2013). The *Constitution of the Republic of South Africa* (RSA, 1996) is the most significant piece of legislation linking environmental concerns with human rights and social responsibilities. In addition, South Africa actively participates in strategic planning meetings, programmes, and summits that aim to assist the country in achieving the 17 SDGs. As stated earlier, in 2008, the South African Cabinet embraced the National Framework for SD that aimed to declare South Africa's national vision to redirect development onto a sustainable path. Furthermore, the country participated in the Partnership for Action on Green Economy (PAGE) programme aiming to position sustainability at the heart of economic policies and action (DEA, 2016). In 2015, South Africa linked its National Development Plan (NDP) with the 17 SDGs and 169 Sustainable Development targets, resulting in 74% of the SD targets being addressed by South Africa's NDP (Statistics South Africa, 2019).

The review of these concepts and contexts provides the necessary background information to approach this research project, which, as described in the next section, is a qualitative document analysis of selected publicly funded universities in Canada and South Africa.

3.   Research design and methodology

This qualitative study is connected to a larger research project, which has received ethical clearance. In alignment with the requirements of the ethical approval, the anonymity of the HEIs under investigation was ensured through data analysis and data interpretation. This study is a comparative document analysis of three teaching-oriented, publicly funded universities in one province in Canada and three corresponding universities in one province in South Africa. As explained by Yavuz (2016), relevant data must be accessible to undertake document analysis successfully. The findings of this research study rely on purposefully selected 41 publicly available institutional documents (23 in Canada and 18 in South Africa) from 2015 to 2021. To fully address research question 1 and thus the status of HESD in both contexts, the institutional documents were complemented by relevant journal articles and government reports. The three main questions addressed in this work are:

- What is the status and role of higher education for sustainable development in Canada and South Africa?

- What areas of sustainable development are on the agenda of universities under investigation in Canada and South Africa?

- What are the main similarities and differences between the two contexts under investigation?

Document analysis is a form of qualitative research that uses a systematic procedure to analyse documentary evidence and answer specific research questions. Like other methods of analysis in qualitative research, document analysis requires repeated review, examination and interpretation of data to gain meaning and empirical knowledge of the construct being studied. According to O'Leary (2014), there are three primary types of documents in a document analysis: public records (e.g. records of an entity's activities), personal documents (e.g. notes, letters), and physical evidence (e.g. artifacts found in a study setting, such as flyers or posters). The documents that form data for this study fall within the categories of public records and physical evidence. Collected data were publicly available. The documents that were analysed consisted of universities' mission and vision statements, annual reports, strategic plans, and other relevant documents ,varying in length from five to 200 pages.

In terms of data analysis, an informed decision was made to employ content analysis as a qualitative document analysis research tool. The qualitative content analysis process involved three main phases: preparation (collecting data), organisation (coding and categorising), and reporting of results (describing results based on the content of categories). As indicated by Busetto Wick and Gumbinger (2020), the coding process makes raw data more manageable and sortable. Therefore, the coding process involved allocating codes to collected documents, then merging codes to categories, and categories to themes relevant for addressing the research questions.

Bowen (2009: 33) describes the overall concept of document analysis as a process of "evaluating documents in such a way that empirical knowledge is produced, and understanding is developed"; it is not just a matter of lining up a collection of excerpts that convey whatever the researcher desires. As researchers we maintained a high level of objectivity and sensitivity to ensure that the document analysis results would be credible and valid (Bowen, 2009). We do, however, recognise that the sample size of the investigated institutions in each context is small; therefore, findings are not generalisable but rather are informative, as is customary with qualitative research designs.

4. Findings

The findings section is divided into three parts corresponding to each of the study's research questions. Therefore, the first part addresses the status and role of higher education for SD in both contexts. The second part draws attention to the inclusion of SD on the agendas of universities under investigation. The last part of the findings section provides a comparison of the two higher education contexts (i.e. Canada and South Africa) where similarities and differences are identified.

4.1 Status and role of higher education for sustainable development

4.1.1 Canada

Based on the analysis of all three institutions, it is evident that the leaders within the institutions acknowledge the importance of reshaping higher education to prepare graduates for an uncertain and complex future. The Government of Canada embraced the United Nations Agenda for Sustainable Development 2030. Canada has a national strategy for ESD entitled "Moving Forward Together: Canada's 2030 Agenda National Strategy" (Government of Canada, Moving Forward Together, 2021). There is also a Federal Implementation Plan for the 2030 Agenda, which includes a Sustainable Development Goals Funding Program and a Canadian Indicator Framework for the Sustainable Development Goals Data Hub, functioning as a monitoring and reporting on progress plan as measured by Statistics Canada. It is evident in the national strategy that significant attention has been paid to the linkages and interrelationships among the 17 SDGs. However, it is noteworthy that higher education is only marginally represented in the national strategy. The national strategy speaks to industry, private and public sectors, indigenisation, and a vision for the future, but the section devoted to tertiary education primarily speaks to "preparing the workforce to meet the challenges of sustainability" and reports that Colleges and Institutes in Canada are focused on raising awareness of SDGs and recognising the research expertise available in Canadian universities and colleges (Moving Forward Together, 2021: 13).

All provinces and territories, through the CMEC, have contributed to a white paper report entitled "Ensuring Inclusive and Equitable Quality Education" (CMEC, 2015) which outlines SD goals, including goals in relation to indigenisation, global citizenship, and SD. However, to date, there is little available in terms of a funding strategy or accountability measures for this ESD plan.

While Canada does have a national development strategy for ESD, fiscal planning and accountability measures, the provincial governments have the main funding responsibility for both provincial mandates in higher education and funding allocations. This means that there may be competing interests between the provinces and between an individual province and the federal government in terms of their dedication to ESD.

4.1.2 South Africa

Based on the analysed sources, it is evident that the post-apartheid South African government acknowledges the importance of reshaping higher education to prepare graduates for an uncertain and complex future. As evident in the following quote, the proposed reshaping calls attention to SD, namely a "need for university curricula to be adapted to better prepare graduates for current and future uncertainties also echoes the calls for universities to include more explicitly the critical issue of sustainable development in all university curricula"

(Padayachee, Matimolane & Ganas 2018: 290). Regardless of the commitment of including SD within the curricula, the analysed sources show that there is very limited research about actual implementation of SD in South African HEIs. Awuzie and Emuze (2017: 1176) indicate that the implementation of the SD agenda in South African HEIs is gradually gaining attention, driven by universities' "desire to support the national government's sustainable development (SD) aspirations through their core activities of teaching and learning, research and operations". Yet, most studies look at factors driving the adoption of sustainable practices and not the actual implementation of SD or the outcomes of ESD.

It is essential to add that as a developing nation, South Africa is vulnerable to many social issues such as poverty, high levels of crime, unemployment, and social inequality, which all impact the implementation of ESD. As Feinstein, Jacobi and Sisitka (2013) report, the effective implementation of ESD is limited due to weak tertiary institutions, inadequate financial and human capital, lack of proper infrastructure, and a lack of prioritisation for ESD in the curriculum and teacher training programmes. In fact, the role of ESD within the South African curriculum and teacher training is not clearly articulated, leading to its poor integration within HEIs. This in turn may limit the role of HEIs to equip students with the knowledge, skills, and attitudes necessary to contribute towards sustainable future.

Although South Africa has a national development strategy towards SD (Statistics South Africa, 2019) to date, the country does not have national or long-term funding strategies for ESD. Lack of clear guidelines may potentially impact effective implementation of ESD. It is also important to mention that the State is the most important source of financial support for South Africa's public universities, providing the core support for all operating and capital expenses. In recent years, however, state funding has significantly declined, which carries consequences also for implementation of SD initiatives. Despite some progress being displayed in HESD, there is still much to be accomplished.

4.2 ESD as an agenda imperative for higher education institutions

4.2.1 Canada

SD, in some form, appears in the mission, vision and strategic planning of all three universities; however, the prioritisation of ESD and community engagement appears in different ways and with differing emphasis and scope. All are mandated and funded by the Provincial Ministry of Higher Education to be responsive to their respective communities. Strategic planning within each university is managed as an internal process within the institution. While sustainability is acknowledged as one of several pressing needs in the province, so too are other factors such as Indigenisation and Truth and Reconciliation Calls to Action on Education, and it is up to the institution to decide the emphasis and scope of sustainability in relation to other provincial mandates. Indigenisation is emphasised as social imperative at all three institutions and is specifically connected to sustainability at two of the three institutions.

All three universities mention environmentalism in current strategic plans. The first university had ESD identified in its vision and mission statements and ESD is evidenced in some disciplines and in the campus-wide Institutional Learning Outcomes. The second university briefly mentions environmentalism in its strategic plan and has ESD woven into Science, Horticulture and Education programmes, but otherwise ESD is not emphasised as a significant commitment. There is no evidence that speaks to accountability for ESD as a university commitment. The third university prominently features ESD as an

institutional commitment; it has a specific ESD action plan and has ESD woven throughout programme learning outcomes, community engagements, as evidenced in most disciplinary descriptions. The third university also provides ESD specific definitions and measurable performance indicators.

The first university connects ESD to indigenisation. This university is in a region that had one of the 18 IRS institutions in the province. Indigenisation efforts across the institution emphasise respect for indigenous worldviews, which is inherently connected to the land and respect for the natural world. EDS at this institution features prominently in the strategic plan and values statement. ESD also features throughout disciplines, and in some disciplines (such as Education and the Social Sciences) it is connected to social justice. At this institution, there is a Centre of Sustainability with a focus on research and pedagogy related to sustainability. Community efforts feature prominently across the institution and are connected to indigenisation, social inequities, homelessness (which is a social concern affecting the area) and systemic racism. These efforts are connected to learning and ESD, accepted as learning opportunities for students' academic transcripts (co-curricular record) and often appear as faculty-driven research efforts within disciplines.

The second university is a smaller institution in terms of student demographics. There does seem to be some emphasis on ESD in relation to community, particularly in relation to inequalities in society and social justice, but this is primarily disciplinary specific, and particularised to representation in Humanities and Education programmes. Otherwise, some opportunities for institutional volunteer engagement and community engagements are apparent, with some connection to ESD and global civicmindedness.

The third university strongly emphasises and prioritises ESD. A connection of ESD to indigenisation features, as are connections to environmental climate change, social justice, and collective responsibility. There are many community-engagement projects, research and outreach initiatives that emphasise ESD. ESD is featured at this institution as a priority, responsibility affecting all areas of study, and of critical importance at this time.

All three universities demonstrate evidence of an interest on the community, and sustainability, but for two universities sustainability is disciplinary specific and less comprehensive as a priority. The third university has woven ESD throughout all areas of the institution. Two of the universities connect ESD to indigenisation. There are differences between the universities in relation to community engagement projects to address inequalities in society, systemic racism, and a goal to achieve social justice but these were disciplinary specific in all three universities. The emphasis of ESD seems fragmented at the first and second universities in terms of inclusion of some aspects of SD occurring in certain programmes, and other elements are not addressed. There is no evidence that indicates a cohesive effort across academic programming to address all elements of sustainability in holistic manner in the first and second university, but there is evidence of a cohesive effort across most academic programming to address all elements of sustainability in a holistic manner in the third university.

4.2.2 South Africa

It is promising to see that the HEIs under investigation aim to achieve sustainability within their respective institutions and the communities that host them. Sustainability is mentioned in the strategic planning as well as mission and vision statements. Furthermore, all institutions

show commitment to achieving the UN's SDGs through research and teaching and learning. It is concerning, however, that the analysed documents do not contain adequate definitions explaining sustainability-related terms. As pointed out by Tierney *et al.* (2016) and Da Silva *et al.* (2019), inconsistent definitions and potential misconceptions may hinder the successful implementation of ESD.

The HEIs under investigation report their awareness that sustainability is not limited to the environment, and they acknowledge the social, economic and environmental dimensions of sustainability. However, only environmental events and policies are extensively implemented and discussed in the analysed documents; thus, a holistic approach towards ESD appears not to be followed. The emphasis on environmental sustainability might be partially influenced by lack of clarity about sustainability-related concepts. In fact, the documents show that the environmental dimension of sustainability dominates the curriculum, research and community initiatives. Sustainable practices include saving electricity and reducing carbon footprints. Some documents explicate that paying attention to their direct ecosystems and preserving their resources allow HEIs to contribute towards the fulfilment of the social and economic dimensions of sustainability. In addition, using resources optimally and sustainably allows HEIs to achieve institutional sustainability and strategic objectives.

The analysed documents indicate that HEIs aim to equip their students with the knowledge, skills and attitudes required to contribute towards SD. On numerous occasions, documents across the investigated institutions report their aim to educate citizens able to make sustainable decisions and take sustainable actions. However, in practice, the curriculums of the three institutions mostly incorporate environmental education into their curriculum and academic programmes.

The three institutions under investigation prioritise community engagement, which mainly focuses on the environmental dimension of sustainability. Only one institution provided a list of community engagement projects linked to both economic and environmental sustainability. In addition, these projects were notably designed to address inequalities in society and foster social justice.

Financial sustainability receives special attention in the strategic goals of HEIs. The institutions show concern about their financial sustainability, heavily relying on government funding, external fundraising, and the development of business entities meant to generate a third income stream. Student debt and uncertainty about government funding are identified as the key factors threatening financial sustainability. This in turn reveals that South African HEIs are operating in an environment (country) that is not financially secure or sustainable. To address the above-mentioned issue, HEIs strive to achieve organisational sustainability and prevent the brain drain by developing highly competent researchers, as well as attracting and retaining high-calibre human capital through fair incentives and policies.

4.3 Similarities and differences in contexts

The findings indicate that although the two contexts are quite different (mainly in terms of financial stability and available resources), they share several similarities. Canada and South Africa are both dedicated to fostering SD through engagement in their local communities. Students and staff are offered opportunities to engage in environmental community initiatives that focus on the protection of the ecosystem and promotion of social justice. The community initiatives serve as a bridge enabling interaction between HEIs and their local communities with

the aim to (a) improve the conditions and the well-being of the communities and (b) develop citizens conscious of and concerned with social and environmental stewardship. Through the community engagement projects, HEIs function as veritable sustainable communities and serve as an example for other social institutions.

Foci on ESD as education for sustainability-oriented citizenship is present in both contexts. This links to the previous paragraph pointing out the goals of community initiatives and empowerment of sustainability-literate citizens. It is important to mention that competencies students potentially could acquire during the initiatives allow them to read the world around them and make links with other social areas. In alignment with the definition of ESD and citizenship education, the goal is to nurture citizens capable to act sustainably considering social, economic, and environmental dimensions.

In addition, both countries utilize their curriculum to prepare students for active global citizenship, commitment to social justice, and the world of work – all of which reflect sustainability principles. The findings point to the focus on transferring knowledge, but also skills to question knowledge and power, and institutions engage in critical analysis of social structures as well as causes of existing realities. It is interesting to note that two institutions in Canada specifically connect ESD, social justice, and questions of power and domination, and Canada's reckoning in relation to Truth and Reconciliation with Indigenization is apparent, although somewhat fragmented in terms of emphasis. In South Africa, nationally there is a strong emphasis on decolonisation in higher education intertwined with the principles of sustainability. However, none of the analysed institutional documents in the South African context clearly points to the link between decolonisation as a social justice movement and ESD.

As per key identified differences, South Africa's focus on financial sustainability is unique, compared to Canada. This can be justified by vastly different levels of financial stability in both countries, as well as accountability when it comes to the distribution of resources and their respective Truth and Reconciliation mandates. Furthermore, the South African higher education sector has experienced a decrease in public funding, which has hindered student enrolment, research productivity, as well as SD initiatives. While Canada has also experienced decreases in public funding, this has been mediated through promoting Canada's universities to international students, who pay significantly higher tuition rates. Consequently, all the South African HEIs under investigation undertook extensive measures to ensure their financial sustainability. Some of these strategies include: (a) optimising the income generated from intellectual property and government subsidy by ensuring efficiency in teaching and research; (b) intensifying commercial projects to secure resources through government grants, philanthropy, and private business donations; and (c) expanding internationalisation to attract funding from international sources.

Indigenization connected to ESD was foregrounded on the agenda of two Canadian HEIs under investigation. Although South Africa is strongly dedicated to decolonisation, which is a component of Indigenization, the analysed documents did not display a direct connection to SD. It is possible that the worldview connected to the Indigenization of First Nations people in Canada, which is strongly connected to land and respect for the natural world, naturally connects to SD. Decolonisation in South Africa, being related to anti-racism and dismantling the colonial structures that resulted from apartheid may not signal instant connection to SD.

Lastly, there was a noticeable disparity in the level of commitment and implementation to EDS across the Canadian universities investigated. One university had demonstrable and

measurable engagement of ESD, one had some commitment to activities promoting ESD initiatives, while another showed little evidence of demonstrable commitment to ESD. In South Africa, all three universities showed similar levels of commitment and implementation to ESD.

5.   Concluding remarks

It is apparent that all six universities are committed to contributing to SD to varying degrees, which is directly connected to regional contexts. As evident, contexts and universities differ in terms of location, size, resources, philosophical orientations, etc. Even across two international contexts, both with Truth and Reconciliation Statements that form mandates for change acknowledging the impact and horrific truths of colonisation, the nature and the scope of change based on these statements in terms of enacting social justice are different. This leads us to deduce that applying the same guidelines does not seem to be a solution for effective implementation of ESD. Universities are influenced by external determinants (government mandates, local policies, regional interests), which make the situation even more complex. To that end, it is our view that each university should integrate principles of sustainability and engage in SD activities based on their individual conditions and needs, while recognising the impact of the regional to global SD interests.

We acknowledge that our comparative document analysis is only a starting point and more comprehensive studies are needed. Yet, based on the findings at hand, we recommend holistic shifts towards sustainability – namely, being present in all institutional aspects rather than in scattered areas such as community engagement, or under the purview of discrete disciplines. This would call for revisiting curricula, research agendas, mission and vision statements, leadership practices, community engagement projects, and institutional culture. More attention needs to be devoted to including and clearly describing terms such as sustainability, SD, and ESD within institutional documents. In addition, we also would argue for explicit linking of ESD to Indigenization and decolonisation agendas.

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