

‘Challenge to the South’ Revisited: A Case Study Worldwide of Regional Centres of Expertise (RCEs) on Education for Sustainable Development (ESD)

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Abstract: Three decades ago Julius Nyerere (1990) wrote *Challenge to the South*. In response to the legacy of colonialism, Nyerere challenged the nations of the Global South to advance their development and to free their people. These concerns are as relevant today as they were in the 1990s. Established for the United Nations Decade of Education Sustainable Development in 2005, there are now over 175 Regional Centres of Expertise (RCEs) on Education for sustainable Development (ESD). This paper offers a case study of RCEs worldwide with a particular focus on challenges, and responses, including a focus on the select Sustainable Development Goals (SDGs) of poverty and health. Further, an account is given of RCEs which have attended to the recognition of Indigenous and traditional ways of knowing.

Keywords: Julius Nyerere, Global South, Regional Centres of Expertise (RCEs), Education for Sustainable Development (ESD), social and environmental justice, Indigenous ways of knowing

Introduction

Having been involved as a member of RCE Saskatchewan (Canada), as one of the United Nations University's (UNU) over 175 Regional Centres of Expertise (UNU, n.d.), I have developed an appreciation for the many and varied regional projects conducted on behalf of education for sustainable development (ESD). A glance at the Global RCE Network (UNU, 2018; see Appendix A) reveals the geographical diversity of RCEs with a wide range of regional interests and concerns from around the globe, including regions of Africa and the Middle East, Asia-Pacific, Europe, and the Americas. In bringing these diverse multi-networks together, however, conferences and other events are held regularly such as the ninth meeting of RCEs of the Americas held virtually and attended by RCE Saskatchewan in October 2020. Established in 2007, and located on the Canadian prairie, RCE Saskatchewan continues to serve as a network of regionally-based interests in education for sustainable development (RCE Saskatchewan, 2020). In this paper, however, I explore globally the initiatives and programs for sustainability, and sustainability education, of Regional Centres of Expertise (RCEs) with a focus on the Global South.

The idea of a Global South, and Global North, was introduced in 1980 through the Brandt Report, commissioned and initially chaired by Willy Brandt (German Chancellor, 1969-74) as leader of the Social Democratic Party (1964-87), to review international development issues. The Report confirmed the differences particularly in economic development between the northern and southern hemispheres of the world (British Broadcasting Corporation, 2014; see Figure 1).

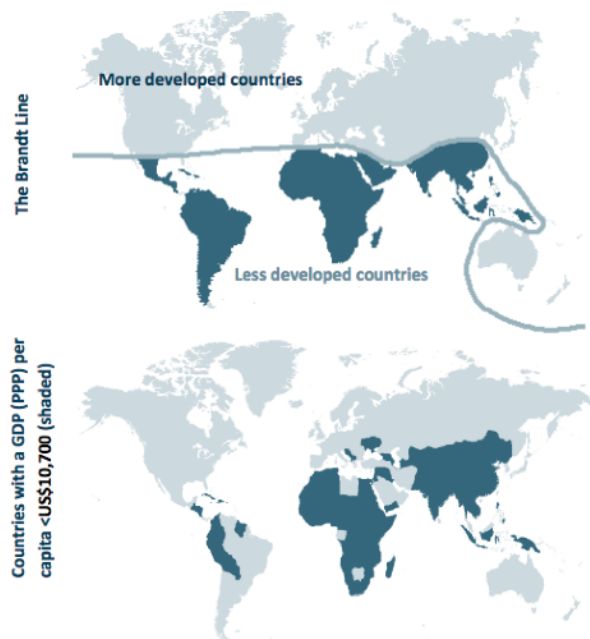


Figure 1: Global North and South (Royal Geographical Society, n.d.)

Over time, however, it has been realized that this categorization of the northern and southern hemispheres is too simplistic: “Countries such as Argentina, Malaysia, and Botswana all have above GDP (PPP) per capita, yet still appear in the Global South. Conversely, countries such as

Ukraine appear to be amongst a poorer set of countries by the same measure” (Royal Geographical Society, n.d.). Further, inequality within various countries grows steadily, leaving some to suggest that differences between the Global North and Global South are representative of richer and poorer communities found within and between countries. India, for example, is home to the largest concentration of poverty, yet boasts a sizable middle class and wealthy elite (Royal Geographical Society, n.d.).

As Julius Nyerere (1990) once observed, the Global South, while hosting the vast majority of the world’s inhabitants, enjoys a considerably smaller portion of the world’s income when compared to the people of the Global North. Mwalimu Julius Nyerere, former president of Tanzania (1964-1985) and revered African leader, was considered a magnet for anti-colonial activists and thinkers worldwide, especially for the continued struggles for self-determination and development among African nations (News Internationalist, 1999). In Nyerere’s (1990) *Challenge to the South*, he offered encouragement to the developing nations of the Global South to press on toward self-determination:

The challenge to the South is to reaffirm, in words and action, that the purpose of development is the promotion of the well-being of its people, with economic growth directed as satisfying their needs and fulfilling their purposes. ... The challenge to the South is to use its own resources more effectively to accelerate its development, giving priority to meeting the basic needs of its people and freeing them from poverty, disease, ignorance, and fear. (1990, pp. 23-24)

In an interview, however, Nyerere commented upon the contribution of the anti-colonial movement to humanity, particularly with respect to how the “arrogance of one group of people in lording over the human race and exploiting the poorer peoples was challenged and discredited – and that was a positive contribution made by the liberation struggle to all humanity” (News Internationalist, 1999). In this sense, the world map divided between nations of the Global North and Global South, and the initiatives undertaken among RCEs of the Global South toward self-determination, ought to be viewed through the lens of colonial domination, involving the extraction and transference of resources and wealth from one part of the world to another over the span of two to three centuries; that is the undeniable historical context in which Nyerere’s challenge and the subsequent work of RCEs in the Global South is to be located.

The concerns expressed by Nyerere three decades ago are as urgent now as they were in the 1990s. Regional Centres of Expertise, particularly those located in the Global South as represented by the regions of Africa and the Middle East, Asia Pacific, and to some extent the Americas and Europe, have continued to answer that challenge. As indicated in this paper, RCEs worldwide have taken up Nyerere’s challenge, for example, with respect to issues associated with poverty and health from an especially regional or local point of view.

Regional Centres of Expertise at a Glance

In this multiple case study (Stake, 2006) of RCEs worldwide, I begin with the formation of the RCE concept almost two decades ago with its interest in regional development coupled with formal, non-formal, and informal learning cultures. The RCE portal (UNU, n.d.) includes descriptions of the respective regions, challenges and opportunities, as well as goals and objectives, activities and programs of over 175 Regional Centres of Expertise. In preparation for

this paper, an inventory was compiled of the text for each of the sections (i.e., regional challenges, goals/objectives, and activities/programs) for a general document analysis, which focused upon how RCEs worldwide have responded to the social, economic, environmental, and cultural challenges with attention to issues associated with poverty, health, and Indigenous (or traditional) knowledge as found in the Sustainable Development Goals (SDG) (2017) (United Nations, 2018a, 2018b) and the United Nations – Indigenous Peoples (n.d.) websites. In particular, this paper will explore Regional Centres of Expertise as learning networks, that is, as sites for learning and action on issues of sustainability of interest to stakeholders. However, I will also consider RCEs as communities of practice with a focus on economic, social, environmental and cultural sustainability, with implications notably for issues of social, environmental, and cultural justice.

Underlying these issues, however, is the challenge as expressed by Nyerere (1990) for the self-determination of subjugated peoples. In Canada, for example, Indigenous peoples (in the plural, to reflect the multiplicity of First Nations, Métis, and Inuit peoples) to a considerable extent have lived within conditions reflective of the Global South through a long colonial history that began in the sixteenth century through first contact with French explorers, and later through British settlement and the treaties of the nineteenth century with the Canadian government, which had displaced them from their land and its many benefits. In response to the legacy of colonialism, the concept of self-determination offers Indigenous peoples the right to “freely determine their political status and freely pursue their economic and social and cultural development” (Government of Canada, 2016, p. 543), including the right to dispose and benefit from their wealth and natural resources. Issues of self-determination underlie the initiatives of RCEs, and particularly RCEs of the Global South (and those people of the Global North, living in Global South conditions). Self-determination is at the heart of Nyerere’s challenge.

The start of Regional Centres of Expertise may be traced back to the Brundtland Report (World Commission on Environment and Development, 1987), which provided the foundation five years later for the first Earth Summit in Rio de Janeiro in 1992. Among the wide-ranging recommendations of Agenda 21, the Earth Summit’s official report, Chapter 36 on the promotion of education, public awareness, and training, pointed to the need for a reorientation of education toward sustainable development: “To be effective, environment and development education should deal with the dynamics of both the physical/biological and socio-economic environment and human (which may include spiritual) development, should be integrated in all disciplines, and should employ formal and non-formal methods and effective means of communication” (United Nations Sustainable Development [UNSD], 1992). Charles Hopkins, UNESCO Chair of ESD at the time, and supporter of RCE development commented:

I had the privilege of being one of a small group of individuals that was invited to work on a writing committee to develop Agenda 21 in the preparations for the Earth Summit to be held in Rio de Janeiro in 1992. Our task was to work on a chapter in the section of Agenda 21 that dealt with how we could actually implement sustainable development. Our chapter, Chapter 36, was on the role of using the world’s education, public awareness and training systems to assist sustainability, and was simply called “Education, Public Awareness and Training.” During one of the first meetings on the writing team, a member suggested that we just needed ... environmental education and more recycling. In response, the president

of a university from the developing world pointed out that he had youth who were already excellent at recycling as they lived their entire lives in the city dumps. He said that these people needed quality basic education to address the unbearable poverty that would lead to an unsustainable future due to civil unrest. (Fadeeva & Mochzuki, 2014, pp. 23-24)

A decade later, the World Summit for Sustainable Development held in Johannesburg, in 2002, indicated the need for a reorientation of education for sustainable development toward local action, thus marking the formal initiation and conceptual formation of Regional Centres of Expertise as the centerpiece of the United Nations Decade of Education for Sustainable Development (DESD 2005-2014). The distinctively regional character of Regional Centres of Expertise, as Hans van Ginkel (Rector of United Nations University, 1997-2007) once observed, holds promise for RCEs in their role of advancing a highly engaged and action-oriented approach to education for sustainable development (Glasser, 2008). In the sections to follow, an account is given of Regional Centres of Expertise as social learning networks, and as especially regional, or local, in nature.

RCEs as Regional Centres for Learning and Action

Regional Centres of expertise provide a platform for learning, often community-based, yet also focused on social action at a particularly local or regional level. In an interview, van Ginkel (as cited in Glasser, 2008) observed that “People often feel that they belong to their region and they are prepared to work hard to improve its prospects for the future” (p. 111). In this way, RCEs are well positioned to support self-directed developmental processes at the regional level, thus creating a “learning region ... [with] an underlying environment or infrastructure which facilitates the flow of knowledge, ideas and learning” (Florida, 1995, as cited in Mader et al., 2008, p. 404). This is reminiscent of the notion of a learning society, in which learning is viewed as a process that takes place non-formally, and informally, beyond the curricula of postsecondary education. Thus, RCEs can play potentially a “central role in developing an integrated regional approach to ESD, bringing the best of knowledge from the natural sciences, social sciences and humanities and integrating this knowledge with the best of educational practices of their community and regional partners” (Mochizuki & Fadeeva, 2008, p. 378). The interest in locally, or regionally based, action-oriented education for sustainable development found among RCEs is central to the reorientation envisioned so many years ago at the first Earth Summit in Rio de Janeiro. This focus on learning as action-oriented is reflected in Leal Filho’s (2011) view of sustainable development, and particularly, education for sustainable development, as necessarily “inclusive, lifelong, holistic, connective, and especially, action-oriented so as to convince people it works and makes sense” (p. 429).

Common among Regional Centres of Expertise is an interest in education for sustainable development (ESD), and notably a learning culture, which encompasses formal, non-formal, and informal learning. While formal learning can be found in schools and universities, for example, non-formal learning takes place within an organizational framework often in response to the initiatives among learners to develop skill or knowledge in a particular area, yet without a formal curriculum. This is a common form of learning among RCEs, especially as learning that takes place within a community-based environment. RCE Lucknow (India), for example, has focused on the agricultural training of farmers and youth through the introduction of various techniques

that utilize locally available resources to increase soil fertility, thus providing alternatives to chemical fertilizers and pesticides (Kanaujia & Pal, 2012). Informal learning, like non-formal learning, takes places beyond schools and colleges and can be described as self-directed or as tacit learning as “acquired in everyday life in interactions with others and the environment” (Hrimech, 2005, p. 311). Among formal, non-formal, and informal learning, however, Walters (2005) suggests the significance especially among local communities of an informal learning culture:

There is a growing recognition that if all learning is represented by an iceberg, then the section above the surface of the water would be sufficient to cover formal learning, but the submerged two-thirds of the structure would be needed to convey the much greater importance of informal learning. This is particularly true in societies where formal schooling levels are low. It is in families, communities, through the media, in books, on the Internet and at workplaces that informal learning occurs. ... It is in local communities, in townships and villages, on sport fields, religious bodies, or in workplaces that values, skills and cultural practices are often acquired. A learning region therefore needs to be concerned to improve the informal learning cultures. (pp. 361-362)

Among Regional Centres of Expertise, the links between formal, non-formal, and informal learning is especially significant given the collaborative nature of RCE networks (see Figure 2).

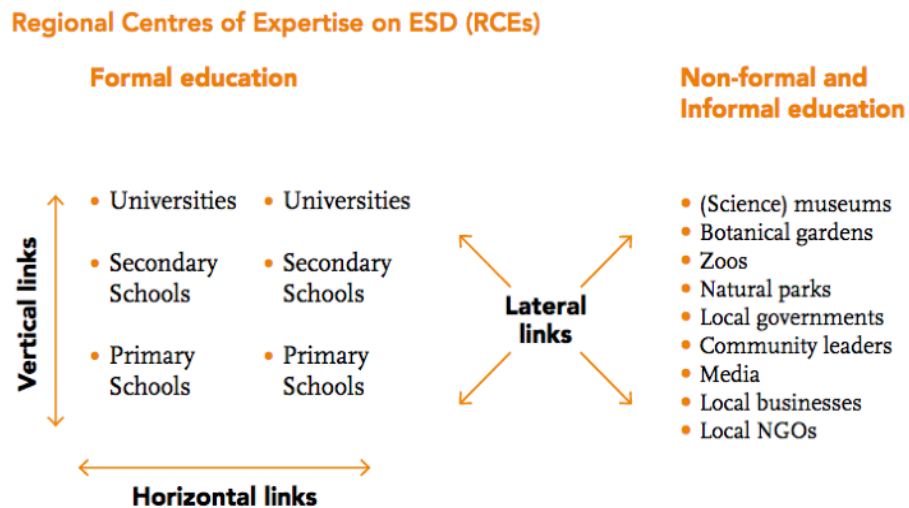


Figure 2: Formal, non-formal, and informal education links for RCEs (Fadeeva & Mochizuki, 2014)

RCEs as Learning Networks

Regional Centres of Expertise are essentially networks for learning. Mochizuki and Fadeeva (2008), however, have indicated that the United Nations University’s initial conceptualization has changed over time: “At one end of the spectrum of RCE interpretations is the image of an RCE as a hub to promote ESD, a meeting point, a link point, a clearinghouse, a knowledge broker, and a platform for information exchange and sharing,” essentially a one-directional system of “knowledge management, transfer, and delivery of ESD to the community” (p. 40). At

the other end of the spectrum, Mochizuki and Fadeeva (2008) maintained, is the RCE as a community of practice for social learning; that is, a learning network. This is in contrast to the knowledge transfer model, and its emphasis on a leadership role for knowledge-related institutions, such as universities. One might look to social construction theory as a way to understand how RCEs function as learning sites; that is, learning “as a social and cultural process that occurs in the context of human relationships and activity and not just in the heads of individual learners” (Dudley-Marling, 2012). This is a view of learning reflective of Mochizuki and Fadeeva’s (2008) understanding of RCEs as “sites for learning, presupposing the existence of conflicts of interests and views among different stakeholders and seeing the potential of a network in the very fact that each partner contributes differing perspectives to the network” (p. 40). The two ends on the spectrum of RCEs (i.e., knowledge transfer and social learning) are not categories or types as much as aspects of RCEs that can be found to varying degrees with the potential, however, for change or the transformation of postsecondary educational institutions in their relations with communities as knowledge keepers beyond formal learning.

As consistent with this view of learning, Wenger’s (2011) communities of practice (CoPs) offer a way of understanding how RCEs function as learning sites. According to Wenger (2011):
Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavor: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems, a clique of pupils defining their identity in the school, a network of surgeons exploring novel techniques, a gathering of first-time managers helping each other cope. In a nutshell: Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. (p. 2)

In this sense, Ros Wade (2013) comments on how communities of practice take social learning and action a step further beyond networks of information-sharing sites; that is, “CoPs look at social networks more from the perspective of action and learning, rather than merely information sharing through interpersonal relationships. While some networks may remain at the level of information sharing, others can develop into CoPs” (p. 93). This is consistent with Mochizuki and Fadeeva’s (2008) description of RCEs as sites for social learning with a focus on action, learning, and social change. Among over 175 RCEs worldwide, however, only one account has been found of an RCE as a community of practice. RCE Waikato (New Zealand) describes itself as a community of practice, with an emphasis on collaborative engagement for interdisciplinary and integrated practices in education “for sustainable societies, and as a community, based upon ethics and values for the social, environmental and cultural dimensions of teaching and learning” (UNU, n.d.). In this instance, networked collaboration in learning (and action) is emphasized in common with descriptions in the United Nations University’s RCE Portal (UNU, n.d.).

Regional Centres of Expertise commonly describe themselves as networks, partnerships, and platforms for learning and action. Fadeeva and Mochizuki (2014) have indicated that, “An RCE is not a physical centre, but an institutional mechanism to facilitate shared learning for sustainable development” (p. 22). While one exception may be found through RCE Tongyenong (South Korea) with respect to the establishment of a building dedicated to the work of their Regional Centre of Expertise, described as the Sejahtera Centre, “a three-story education centre ... to serve the RCEs network in Asia-Pacific as the hub” (UNU, n.d.), RCEs commonly

describe themselves, as RCE Penang (Malaysia) reports, “not [as] a physical center or building, but [as] a network of individuals, organizations and groups who are committed to building a more sustainable future through education and learning” (UNU, n.d.). Among RCEs worldwide, this appears to be the norm.

Several examples of RCEs as networks or platforms (Mochizuki & Fadeema, 2008) for learning and action can be found as follows in the United Nations University's RCE Portal (UNU, n.d.). RCE Okayama (Japan) is described as “a multi-stakeholder platform composed of more than 250 members of organizations, collaborating to empower people to change the way they think and work towards a sustainable future in Okayama City.” Similarly, RCE Cuenca Del Plata (Argentina) “seeks to become a regional leading platform to foster ESD and sustainability along with governments, private sector, academia, civil society and communities to advance the achievement of SDGs through stakeholder management, training, research and extension programs.” Further, RCE Hamburg (Germany) describes its role “in fostering synergies and in serving as a platform for exchanging knowledge, experiences and best practices and to facilitate networking among actors active in the field of sustainability” (UNU, n.d.). RCE Creias-Oeste (Portugal), however, emphasizes its diversity as consisting of “an informal network of diverse institutions – municipalities, schools, universities, enterprises, NGO” (UNU, n.d.). Alternatively, RCEs express their work in terms of partnerships among educational institutions, governmental agencies, business and industry, and community groups among others, with an emphasis on diversity. RCE Vojvodina (Serbia), for example, aims “at giving the region the tools needed to implement a framework for a university-government-economy-civil society partnerships model in sustainable development as founded upon a unique and innovative organizational network based on a four-fold model of cooperation between the public, civic, business and academic sectors” (UNU, n.d.). In like manner, RCE Aquitaine Bordeaux (France) describes itself as,

... developed in the framework of partnerships involving the academic world, communities, socio-economic actors and civil society ... to bring the academic world to grasp the SD issues facing our society, to strengthen cooperation between institutional and non-institutional actors, to contribute to a real dialogue between the different institutional and non-institutional actors of ESD. (UNU, n.d.)

While each of the above examples is unique in its own respect, RCE Mutare (Zimbabwe) takes a refreshing perspective upon people (not organizational or institutions) in its efforts “to ensure people of all ages and from all walks of life participate equally in education for sustainable development in order to effect a change to more sustainable ways ... in respect of peace and in the name of ‘hunhu.’” (UNU, n.d.). The notion of hunhu, also known as “ubuntu,” emphasizes the role of community and citizenship in human relations (Sibanda, 2014).

Rethinking Sustainable Development

Sustainable development has been understood for decades in terms of the three pillars of environmental, economic, and social sustainability. The United Nations Educational, Scientific and Cultural Organization, however, observes four parts to sustainable development: “society, environment, culture and economy – which are intertwined, not separate” (UNESCO, 2019) with culture introduced in 2010 as the fourth pillar of sustainability (Culture 21, 2018). As a derivative of the four dimensions of sustainability, social and environmental justice may be

understood through the efforts among RCEs, especially in the Global South, to alleviate poverty and improve the health of people in their regions. Cultural justice as a dimension of cultural sustainability, however, may be located in the initiatives taken among RCEs worldwide to acknowledge the value of Indigenous and traditional ways of knowing in their respective regions. In the sections to follow, an account is given of social and environmental justice through Sustainable Development Goals of poverty and health, while cultural justice is considered with respect to the recognition and (re)development of Indigenous and traditional ways of knowing.

Social and Environmental Justice

Social and environmental justice are common themes shared among Regional Centres of Expertise in the Global South. A few years ago while becoming acquainted with Regional Centres of Expertise worldwide, I found of interest Stefanovic's (2008) study of RCE Toronto (Canada), particularly with respect to the observed "lack of integration of ESD with issues of environmental justice" (p. 420). It was found that issues such as "poverty alleviation" and "peace studies" were not identified by any of the responding organizations as a primary area of focus; in fact, over 80 percent responded that these concepts were "not a focus" at all (p. 420). Similarly, there are a few accounts at present of socio-economic and cultural sustainability notably in the regions of Europe and North America; yet pockets of attention can be found with respect to issues social justice. RCE Georgetown (United States), for example, reports on issues of social justice, particularly "lower average income and higher poverty rates that disproportionately affect the African-American residents in the country" (UNU, n.d.). In the United Kingdom, RCE London emphasizes issues of social and environmental justice with reference to "inequality of housing, air quality, employment and green space" (UNU, n.d.). Most reports of social justice issues, however, are found among RCEs of the Global South, particularly in the regions of Africa, Asia, and South America. Located in southern Africa, RCE Lesotho, for example,

... faces huge socio-economic and sustainability challenges. The rate of unemployment is currently estimated at about 50%, and with about one fifth of the population experiencing severe hunger every day. Lesotho is faced with HIV/AIDS prevalence of 35%, making it the third highest infected country in the World. Under these conditions the country is riddled with high death rate, weakened workforce, high number of orphans, poverty and crime. (UNU, n.d.)

Issues of inequality, and social injustice, are also reported upon in the Global South with reference to entrenched differences among urban neighborhoods. Poverty in association with issues of health, hygiene, unemployment, and diminished environmental resources are reported commonly among RCEs in Africa and Asian countries of the Global South. RCE Matare (Zimbabwe), for example, reports that,

[P]overty has led to massive deforestation of the mountains surrounding the city particularly the mountains adjacent to high density suburbs. One legacy of the colonial era is the division of the city's residential areas into three categories; low density, medium density and high density. The high density suburbs are characterized by poor housing, abject poverty, and over-crowding. (UNU, n.d.).

While not always stated explicitly, issues of social and environment justice are commonly cited among RCEs of the Global South with implications directed, for example, toward the reduction of poverty and the improvement of health services among the regions.

In the context of Regional Centres of Expertise worldwide, the relation between social and environmental justice is most significant, and often alluded to in the reports especially of RCEs located in the Global South. Thought on social justice, however, may have begun with an account in 1840 by a Sicilian priest, Luigi Taparelli d'Azeglio, who appealed to the ruling classes to attend to the needs of the new masses of uprooted peasants who had become urban workers (Novak, 2000, as cited in Sumner, 2005, pp. 580-581). Perhaps not as widely known as social justice, environmental justice began in part with the pioneering work of Bullard (2005) who introduced the concept of environmental justice in the 1990s with its attention to environmental policies, for example, and their effect on communities notably of race or color. While attention to the issues of social and environmental justice have evolved with time, problems of inequality with respect to social and environmental injustice continue to surface in connection with increasing urbanization worldwide. RCE Makana (South Africa) points explicitly to the problem of unplanned urbanization through its recent emergence from apartheid:

With the 1994 demise of apartheid and a recent regional change from a predominance of stock farming to game farming and eco-tourism there has been rapid urban growth. This change has led to many small land holdings being consolidated into larger game park blocks, displacing many farm workers to urban settlements where there are high levels of unemployment. The changes have also shaped a deepening poverty that is now being further exacerbated by the recent slowdown in the global economy and an attendant loss of further jobs as the market economy levels out. (UNU, n.d.)

Issues of social and environmental justice through unplanned urbanization, for example, are increasingly becoming a common challenge among RCEs in the Global South. RCE Chennai (India) reports on the combined environmental and social challenges of urbanization:

The lack of water supply dominates the problem of poor water quality in the city thereby ignoring the importance of water, sanitation, health and hygiene (WASH) topics.

Urbanization also makes waste management a huge challenge. Another major problem that the people face is related to safety. Chennai records the highest number of road accidents compared to any other metropolis in India, road safety has become the first priority among safety issues. (UNU, n.d.)

Further, issues of poverty and unemployment (notably among women) are typically cited as conditions associated with unplanned and rapid urban growth. RCE Khomas-Erongo (Namibia), for example, reports that,

Unemployment levels are as high as 51% in urban areas and 36.1% in rural areas. High unemployment levels in urban areas are especially experienced in major cities and towns such as Windhoek, Walvis Bay and Okahandja, since people migrate from rural areas to cities in search for jobs. A relative high percentage of the unemployed are women. The inequality in society results in environmental problems such as the formation of informal settlements around major cities and towns. This is also due to a lack of low cost housing provision. These informal settlements lack proper sanitation systems as well as provision of drinking water and power. (UNU, n.d.)

The challenges faced among regions particularly in the Global South can be illustrated further through an account of what RCEs have indicated with respect to the issues associated with poverty and health.

Sustainable Development Goals: Poverty and Health

In an illustration of the attention among RCEs worldwide to issues of social and environmental justice, the United Nations' (n.d.) Sustainable Development Goals (SDGs) provide a useful frame of reference. In this regard, I have selected Goal 1 (No Poverty) (United Nations, 2018a), and Goal 3 (Good Health and Well-Being) (United Nations, 2018b), as search criteria for issues of poverty and health as reported among RCEs. Further, a search of text with respect to Indigenous (or traditional) ways of knowing is included. Although a SDG for Indigenous or traditional knowledge is not available, the United Nations – Indigenous Peoples (n.d.) provides a reference point.

To understand poverty, one might look to the concept and practice of sustainable livelihoods (SL), as derived from the word livelihood, which is understood essentially as “a means of gaining a living” (Chambers & Conway, 1992, as cited in Petry et al., 2011, p. 86). Common among RCEs of the Global South, one may find reference to sustainable livelihoods to promote local economic production. RCE Central Kenya is a case in point with its “[e]stablishment of alternative livelihood projects such as fish farming, wool spinning and bee keeping for local communities” (UNU, n.d.). In terms of social justice, RCE Greater Kampala (Uganda), for example, reports on its work to “[d]evelop and promote a strategy for improvement of livelihoods of slum dwellers in Kampala; skill development and vocational education; and advanced gender equality” (UNU, n.d.). As a uniquely local approach to development, however, sustainable livelihoods has gained attention over the last two to three decades as a way of addressing poverty, particularly for those living in rural and marginalized areas. Perhaps the most salient point about SL is that it distinguishes “between those components over which an individual has direct control and those components affecting the individual’s livelihood over which there is little or no direct control – at least over the short term” (Petry et al., 2011, p. 86). The principle of sustainable livelihoods then encourages local communities to participate in productive activities outside of the global marketplace. The concept of sustainable livelihoods, in the plural, is in contrast to the better known concept of the “green economy,” in the singular, as commonly associated with sustainable development, and as determined by new technologies and the commodification of nature through the global marketplace (United Nations Environment, n.d.).

As an example of sustainable livelihoods, RCE Greater Phnom Penh (Cambodia) reports of a project involving several partners in the promotion of sustainable agriculture for poverty reduction with the aim, “to promote sustainable agriculture conditions through various forms of education for change agents (agricultural extension officers) and farmers in the province... [and] [t]hrough education for sustainable development, farming conditions based on sustainable agriculture will set up in the project areas” (UNU, 2014). Specifically, RCE Greater Phnom Penh’s program of safe vegetable production for Cambodia and Vietnam aims, “to empower small farmers with integrated experiential education and training for sustainable vegetable production that limits postharvest losses and increases food safety, market access and especially

income” (UNU, 2014). In maintaining the balance among social, economic, and environmental sustainability, one must not forget the all encompassing role of the environment. In that regard, RCE Greater Dhaka (Bangladesh) reminds readers of the delicate balance between the use of technologies such as pesticides for enhanced agricultural production and the effects of this approach on the surrounding environment, including deforestation and increased urbanization:

But to feed the huge population, short-term benefited technologies especially high inputs depended ones, excessive use of chemical fertilizers and pesticides, deforestation in and around the region, change of the landscape. [U]nplanned urbanization and industrialization especially textile, dyeing, hide and skin and medicine industries etc. have polluted the environment especially the air, soil, water-bodies and thus the ecosystem services are becoming less functional and affecting the human health as well as other lives. (UNU, n.d.)

In short, issues of health are closely linked with those of poverty as they are with the environment.

The United Nations – Ending Poverty (n.d.), however, defines poverty as “more than the lack of income and productive resources to ensure sustainable livelihoods ... [as its] manifestations include hunger and malnutrition, limited access to education and other basic services, social discrimination and exclusion, as well as the lack of participation in decision-making” (n.d.). In this context, poverty is understood among RCEs worldwide in association with other issues as situated in increasing urbanization. RCE Zomba (Malawi), for example, cites “challenges related to poverty, unplanned settlements, rapid population, growth, deforestation and waste management” (UNU, n.d.), and RCE Guwahati (India) also looks to poverty as linked with other issues of social, cultural, and environmental justice, as tied in with “loss of biodiversity, human-animal conflicts, land degradation, scarcity of drinking water, unplanned development, natural disasters, and a loss of traditional knowledge and wisdom” (UNU, n.d.). In the Americas, RCE Shenandoah Valley (United States) points out that, “Poverty threatens the well-being not just of the poor, but our communities at large” (UNU, n.d.). Perhaps the message among these reports of RCEs in Malawi, India, and the United States is that poverty is a community-wide, if not a societal and global issue in need of urgent attention.

Cultural Justice and Indigenous Ways of Knowing

While RCEs worldwide have illustrated the challenges they face with respect to social, economic, and environmental sustainability, however, a few RCEs have further considered the place of cultural sustainability, and cultural justice, in relation to Indigenous and traditional ways of knowing. As Payyappallimana, Fadeeva, and O’Donoghue (2013) maintain, traditional knowledge as a contributor to sustainable livelihoods, offers “a better prospect for inclusivity, and better alignment for understanding and responding to social-ecological risk” (p. 8). Yet Indigenous peoples worldwide continue to seek “recognition of their identities, way of life and their right to traditional lands, territories and natural resources for years, yet throughout history, their rights have always been violated ... [and] are arguably among the most disadvantaged and vulnerable groups of people in the world” (United Nations – Indigenous Peoples, n.d.). This yearning for recognition is essentially about cultural justice, described by Maddox (2010) through multiple lenses:

It may refer to culturally specific conceptions of what is just. Alternatively, it may refer to deciding what constitutes justice between members of different cultural groups. ... A further possible demarcation is between instances where culture is the marker of distinct groups who face injustice on issues such as access to resources or discrimination. They may also experience situations where culture itself is the subject of injustice, such as when their culture's beliefs, values, or practices are suppressed by the members (or dominant institutions) of another culture, whether or not that suppression goes along with other kinds of injustice. (pp. 249-250)

The latter description of cultural injustice as a suppression of beliefs, values, and practices, as well as other kinds of injustice (e.g., economic injustice) is especially relevant to the issues facing Indigenous peoples worldwide.

The problem of suppression of Indigenous and traditional ways of knowing, and further the challenges faced by Indigenous peoples, is at least acknowledged by a few RCEs across the globe. RCE Murray-Darling (Australia), for example, reports that "rural and regional communities deal with a diverse range of issues including poverty and social exclusion, mental health problems and suicide, and an ageing labour force due to the exodus of young workers" (UNU, n.d.); yet in this context, RCE Murray-Darling indicates "ongoing disparities between Indigenous and non-Indigenous social and health indicators" (UNU, n.d.). In response, RCEs worldwide have looked to acknowledging and recovering Indigenous and traditional knowledge and culture within the context of sustainable development. RCE Gippsland (Australia), for example, reports, "The Gippsland region is the traditional home of the aboriginal peoples of the Gunnai/Kurnai language group and continues to be home for Gunnai/Kurnai people today. Gunnai/Kurnai knowledge of language and country is important for eco-social sustainability" (UNU, n.d.). Likewise, RCE Trang (Thailand) reports, "Population increases from migration is one of the primary challenges the region faces, as it places added pressure on the environment and destroys natural resources. The region is also working to conserve its indigenous traditions and cultures, which are battling against modernization" (UNU, n.d.). Further, RCE Peterborough Kawartha Halliburton (Canada) acknowledges, "Ways of Knowing that value Indigenous Knowledge as foundational to sustainability education; that recognize the importance of lived and community-based experience; and, that are guided by reciprocity and caring" (UNU, n.d.). In this example, however, RCE Guatemala has taken decisive action:

In addition, programmes and projects of innovative teacher training, research and publications favouring the Mayan cultural heritage studies and the local knowledge from indigenous peoples promote citizenship and build national identity. ... Within its activities, REC Guatemala also offers spaces to Mayan undergraduate students so that they can be part of these pedagogical processes that can provide their perspective ... allowing them to strengthen the link between disciplines, cultures and experiences. (UNU, n.d.)

Further progress is being made by other RCEs globally on Indigenous and traditional ways of knowing as part of an integrated and inclusive approach to education for sustainable development that is mindful of the interconnections among environmental, social, and cultural issues and challenges. RCE Thiruvananthapuram (India), for example, reports on its efforts to "raise public awareness and action about the key sustainability issues in the region (especially in the context of threatened biodiversity, agriculture, and traditional knowledge) for a sustainable

way of life in the region” (UNU, n.d.). Similarly, RCE Lima-Callo (Peru) describes its work to “[p]romote traditional knowledge recovery, especially Andean Amazonian, through action-research projects that support human reciprocal relationships and balance with nature, typical of indigenous communities” (UNU, 2016).

Further work in the development of Indigenous and traditional ways of knowing have been carried out by RCE Greater Masaka (Uganda) through “implementing the research project on revitalising the utilisation practices of indigenous food resources” (UNU, n.d.). Likewise, RCE Waikato (New Zealand) tells of its program of *Values in Education for Living Well with the Earth*, which includes work with Indigenous collaborators; and RCE Crete, has been “developing a digital repository of indigenous knowledge practices in the areas of health, agriculture, local food production, music and culture” (UNU, n.d.). The acknowledgement of Indigenous ways of knowing can also be found also through RCE Greater Portland (United States), which hosted a panel of Indigenous speakers and allies who had come together to consider how the world could be organized differently if it were based on Indigenous wisdom. This led to a “pathway to problem-solving and ways to inspire people to pull together to re-achieve ecological and social balance and harmony, [and further] a discussion on ‘Indigenous Wisdom’ in overcoming the legacy of colonization, and to provide leadership in response to global climate change” (UNU, n.d.). Attention among Regional Centres of Expertise worldwide with respect to the recognition of Indigenous and traditional ways of knowing, however, appears to be relatively recent on the horizon, and will require further research and action.

Reflections Upon the Future of RCEs

Regional Centres of Expertise worldwide serve as networks for social learning and action, sometimes referred to as communities of practice (Wade, 2013). However, one might also imagine RCEs as sites or spaces for social movement learning. Morris (2005) describes social movements as “a specific kind of concerted action group. ... not as organized as formally constituted organizations” (p. 589). In this sense, Regional Centres of Expertise serves as an informal affiliation of people and groups with interests in the social, economic, environmental, and cultural well-being of their respective regions may be understood as social movements, especially as sites for education and action (Hall, Clover, Crowther, & Scandrett, 2012). The conceptualization of Regional Centres of Expertise as social movements merits further research.

Among RCEs worldwide, notably in the Global South regions of Africa, Asia Pacific, and South America, action is being taken through activities and programs directed toward social, economic, and environmental sustainability. However, one may find examples of the beginnings of action toward the recognition and inclusion of Indigenous and traditional ways of knowing in all four corners of the RCE world, including the regions of Africa and the Middle East, Asia Pacific, Europe, and the Americas (both North and South). As Fadeeva and Payyappalliman (2014) observe in an assessment of United Nations’ Decade of Education for Sustainable Development (DESD), RCEs have served well in creating “specific regional capabilities to connect not only to local and regional learning networks but, through vertical linkages, with national and international processes as well” (p. 278). Perhaps, the connections between developing and developed regions, or regions of the Global North and South, through RCE networks will provide opportunities, in response to Julius Nyerere’s (1990) challenge to meeting

the colonial legacy through bringing into focus contemporary questions of global sustainability and justice, and further, social action in response to those questions.

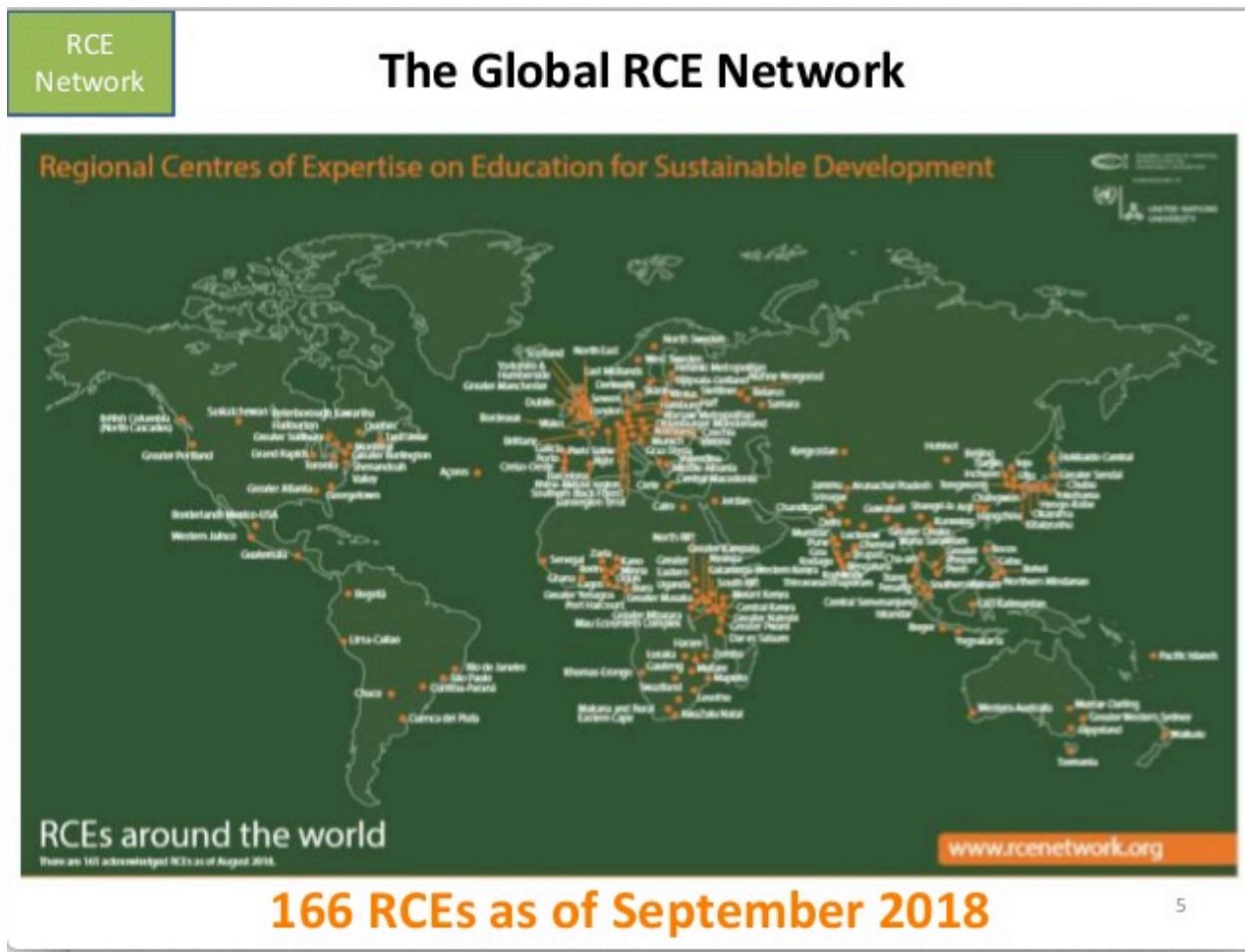
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Appendix A



(United Nations' University, 2018)



RCE REGIONAL CENTRE
OF EXPERTISE
ON EDUCATION
FOR SUSTAINABLE
DEVELOPMENT

SASKATCHEWAN

