Contextualising the Principles, Policies and Practices Needed to Implement Education for Sustainable Development Into HEIs in Myanmar

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Abstract

Education for sustainable development (ESD) is an important feature of the Sustainable Development Goals, being explicitly mentioned as part of SDG4 dealing with education. While ESD needs to be embedded in all levels and types of education, its conceptualisation and implementation has been particularly driven by academics and the higher education institutions (HEIs) they work in. The Talloires declaration, the Green Campus movement and the UNESCO supported competencies for sustainable development are but a few of the many international developments in this area. However, these international activities also run the risk of embedding conceptions and approaches arising from developed countries that ignore the traditions and cultures of developing countries, countries which themselves may have a diverse set of traditions and cultures. In addition, the nature and scale of the HEIs within any country provide yet more diversity to account for when looking at the principles, policies and practices they might adopt. Myanmar is one such developing country with a diverse population that has also been subject to a distressing political and cultural history. This paper reports on the findings of a doctoral study that used models from the literature to help investigate what graduates from Myanmar HEIs and key informants saw as important for the sustainable future of Myanmar. It discusses activities and approaches that HEIs could use to integrate ESD into their work, and the changes to educational policy and practice within Myanmar's HEIs considered necessary to achieve a more sustainable future for Myanmar.

Keywords: Sustainable Development, Higher Education Institutions, Educational Policy, Educational Practice

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Introduction

While academic discourse notes the variety of terms and meanings around sustainable development, international political discourse has tended to be more focussed. The Brundtland report (Brundtland, 1987) was the first political milestone for defining sustainable development, raising worldwide concerns about the impact of human activities, and inspiring a series of international conferences and meetings. Then, the first UN Conference on Sustainable Development in Rio de Janeiro (Brazil) in 1992 agreed "Agenda 21" as the first step of international commitments on sustainable development from a global partnership.

In 2000, world leaders made a Millennium Declaration as a global partnership to implement the "Millennium Development Goals (MDGs)," which included eight targeted goals with a deadline of 2015. There was no explicit link between the environmental sustainability goal and educational institutions' involvement in MDGs. Nevertheless, the "Experiences and evidence from the efforts to achieve the MDGs" (United Nations, 2015a, p. 3) provided insights for the next 15 year-strategic-plan of Sustainable Development Goals (SDGs). At the UN General Assembly in 2015, all member states adopted the 17 Sustainable Development Goals (SDGs) to extend the global partnership for the next set of 15-year targets and the 2030 Agenda for Sustainable Development was launched on 1st January 2016. Out of 17 SDGs, the role of education is set out in SDG 4 as follows:

> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. (United Nations, 2015b)

Amongst the different targets under SDG 4, sustainable development specifically features in target 4.7, commonly known as Education for Sustainable Development (ESD):

> By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including amongst others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development. (United Nations, 2015b)

This doctoral research used this target as the context for investigating the role of the Higher Education (HE) sector in Myanmar towards ESD in general and more specifically what this might mean for individual HEIs.

Education for Sustainable Development and Higher Education Institutions

Although some countries have not given ESD priority in their national agendas, it has been gradually gaining wider attention amongst HEIs since the Rio Earth Summit (Calder and Clugston, 2003). The Talloires Declaration (1990) is an early milestone in the adoption of ESD by some HEI's (526 HEIs from 59 countries by 2023).[1] Another significant network is the International Sustainable Campus Network (ISCN), currently representing 101 signatory member universities from thirty-two countries on six continents.[2] In addition, the greening universities campus movement has become popular across the world (UNEP, 2014). Some

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[1] Data from https://ulsf.org/96-2/
[2] Data from https://international-sustainable-campus-network.org/membership-overview/

examples are the China Green University Network, the Green Campus Initiative in Africa (UNEP, 2014), the Environmental Associations of Universities and Colleges (EAUC) in the UK and Ireland, the Green Campus Network in Australia, the Green Campus Association in Korea, and the Dark Green School Project in the Philippines.

However, ESD in Southeast Asia is not as strongly promoted or implemented in HEIs. ASEAN (Association of South-East Asian Nations) launched its "Roadmap on the ASEAN Higher Education Space 2025 and its Implementation Plan" in 2022 which mentions SDG 4 in general but with no explicit mention of ESD (ASEAN, 2022). Similarly, the ASEAN University Network has no mandate or commitment of collaboration for ESD amongst its thematic networks, although individual HEIs are engaging in other international networks around ESD.

Higher Education Institutions in Myanmar

There are 171 HEIs under the control of eight different ministries in Myanmar (Ministry of Education, 2016). Of these, the highest numbers are administered by the Ministry of Education and two main types of HEIs can be distinguished as:
1) full-time/day-campus/face-to-face universities, and
2) distance education universities.

Yangon University of Distance Education (YUDE) and Mandalay University of Distance Education (MUDE) account for about 50% of overall HE students in the whole country (JICA, 2013). In addition, HEIs have had to adjust to three major political transitional periods:
- Military regime during 1988-2010,
- Quasi-democratic governments (2011-2020), and
- on going Military Coup (2021-2023).

The first period was one of relative isolation from international developments, with centralised control of higher education department, a reliance on didactic teaching methods to teach traditional subjects, and little focus on HEIs wider social influence beyond them being treated as potential sources of opposition to the governing regime. Most plans for educational reform were devised and slowly being implemented within the middle period. The Comprehensive Education Sector Review (CESR) (2012-2014) aimed to analyse the educational situation, shape new policies, and draft a comprehensive education plan. A "National Education Strategic Plan (NESP): 2016-2021" was launched in 2016, in which educational transformation was a high priority and a key driver for social and economic development (Heslop, 2019). NESP aimed to promote greater autonomy for HEIs, update curricula and develop the use of technology to enhance teaching methods. Then, in 2018, a "Myanmar Sustainable Development Plan: 2018-2030 (MSDP)", heavily informed by the UN's SDGs, was launched. However, while the MSDP provides a reference point for the Education for Sustainable Development (ESD), ESD was not made explicit in the NESP. A revised NESP that built upon these two previous plans was being developed at the time of the Military coup, but essentially Myanmar's HEIs have had a very limited involvement in shaping educational reforms and any discussion of and plans for implementing ESD.

While plans for reform are on hold in Myanmar, this doctoral study reviewed the potential models for implementing ESD at institutional and sector levels and investigated how those models might be applied in Myanmar's context.

Models for Conceptualising and Implementing ESD at the Institutional Level

While the international networks noted above produced list of points to consider, they did not provide an overarching framework for how ESD might be conceptualised and implemented. One of the first universities to do address this gap was the University of Plymouth in the UK which viewed ESD as a holistic concept requiring a whole university approach. They considered all aspects of teaching, learning, assessment, research and cultural practices as important for ESD development and implementation (Dyer, Selby and Chalkley, 2006). Subsequently, the Centre for Sustainable Futures (CSF) at the University proposed a "4C" model in which *"Curriculum, Campus, Community and (institutional) Culture are seen as mutually enfolded and complementary foci"* (Jones, Selby and Sterling, 2010, p. 7) form a framework for a sustainability-sensitive university. They claimed that the students' learning (curricula) can be facilitated or supported by their experiences in the campus, the community's engagement, and the cultural practices of the university. Equally, they claimed that the students' learning from both formal and informal experiences *"can be directed towards campus, community and institutional cultural change"* (Jones, Selby and Sterling, 2010, p. 7). However, they did not explicitly discuss how campus and community are inter-related and how the university's culture can influence the other three elements. Moreover, although innovative teaching methods or approaches are recommended, pedagogy is not represented in the 4C model, and how culture relates to the HEIs vision and mission is not set out.

Anand et al. (2015) adapted the 4C model by adding research as an additional element and by elaborating 'campus' into 'campus operations' but like Jones, Selby and Sterling (2010) they did not make pedagogy explicit in their model. Neither are they explicit in terms of Universities' expectations for ESD related graduate attributes and competencies for their alumni to contribute to sustainability beyond their University lives. Developing students' ESD related competencies can be achieved by various pedagogical approaches, such as running real projects or undertaking internships (see Brundiers, Wiek and Redman, 2010; Lozano et al., 2017). So, by using the 4C+R model by Anand et al. (2015) and considering "pedagogy" as an explicit element to the "4C+R", a new model i.e., "4C+RP" (Curriculum, Campus, Culture, Community, Research, and Pedagogy), was proposed as a framework for this research (see Figure 1). The five oval elements inside the institutional context are intended to be mutually supportive and interdependent, collectively they support the development of ESD related graduate attributes illustrated at the point they intersect. In addition, the proposed model broadens the context beyond the institutional culture to reflect the influence of proximate and distant communities to encompass their cultural values, policies, and expectations.
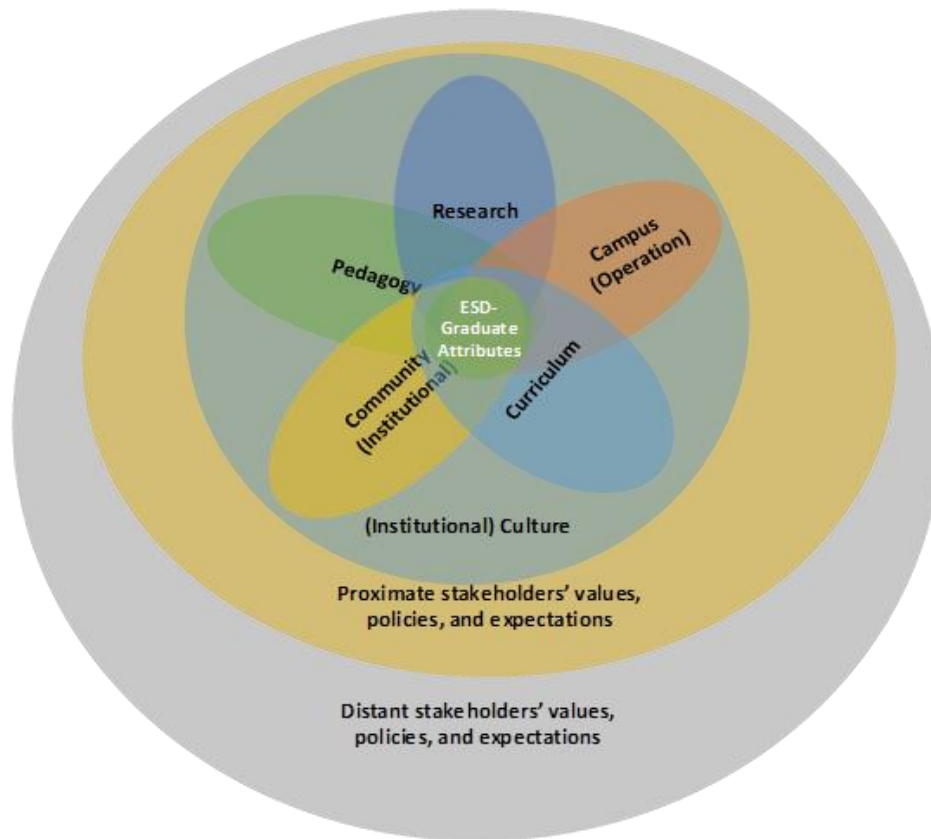
Figure 1: Proposed 4C+RP model of ESD integration in HEIs (Source: authors)

Models for Conceptualising and Implementing Education for Sustainable Development at the Sector Level

As discussed earlier, HEIs are expected to contribute to addressing sustainability. Nevertheless, it is acknowledged that reforming the whole institutional approach to this global challenge is a difficult and challenging long-term process for HEIs (Holmberg et al., 2012), often requiring external support from government and other national and international stakeholders, as evidenced by the many networks mentioned above. The option and potential for ESD implementation by HEIs depends very much on the current state of the HEIs and the relevant country context. For some, implementation will require relatively small changes, for others it requires more fundamental reforms of the HEI, particularly where the country context is also changing dramatically.

Education is also considered as a vital role in the reform process for war-torn countries or countries severely affected by natural disasters or ethnic/religious conflicts. At this level, the concept of education for reconstruction developed by Arnhold et al. (1998) provides an appropriate framework through which to study the HE sector in Myanmar, which has suffered from civil unrest, various conflicts, and civil wars. The model, based on the experiences of countries with prolonged civil wars and conflicts like Bosnia, Rwanda, etc., includes five components of reconstruction (Arnhold et al., 1998, p. 11):

- Physical reconstruction
- Ideological reconstruction
- Psychological reconstruction
- Provision of materials and curricular reconstruction
- Human resources

Methods

Against the backdrop of limited ESD literature and practice in Myanmar, this research set out to investigate the relevance of these two models for informing the principles, policies and practices needed to develop and implement ESD. Two methods of qualitative data collection were used. First, through seven Key Informant Interviews (KIIs) with experienced professionals from different backgrounds and second through two Focus Group Discussions (FGDs) with 9 and 10 university students and teachers, with all participants being from Myanmar. Both the KIIs and FGDs were recorded, transcribed, and verified with the participants concerned.

As the research aimed to explore how ESD and the roles of HEIs were viewed from the research participants' perspectives, it employed an interpretivist approach using grounded theory (Glaser and Strauss, 1967). Research data management and participant recruitment processes were cautiously handled due to the higher risks and potential likelihood of ethical issues being imposed by the COVID-19 pandemic regulations and the political crisis in Myanmar. Although all participants were Myanmar nationals, many of those invited to take part in the research lived outside Myanmar. This design was intentional to avoid potentially negative consequences for participants given the situation in Myanmar. Remote data collection was employed, and Braun and Clarke's (2006) suggested thematic analysis was conducted using NVivo software.

Findings

The research participants were asked what sustainability means to their personal lives. While asking the participants in both KIIs and FGDs, 'sustainable development' was intentionally paraphrased and inter-changeably used as 'sustainable future or desirable conditions they would like to see in the future of Myanmar' to capture a holistic view of their understandings. Five thematic components emerged from the qualitative data with many coded references (52) being associated with more than one theme (Table 1).

Sustainable future for Myanmar	*Coded References*
Economic view	47
Environmental or ecological view	57
Political view	40
Socio-cultural view	23
Philosophical view	51

Table 1: Themes for the sustainable future for Myanmar

These five themes are regularly seen in the ESD literature and affirm that the participants do see a sustainable future as covering all the themes. They also recognise that there are interconnections between them, given many coded references apply to more than one theme, most notably between the economic and environmental views which share 27 coded references.

Participants were also asked to consider what the role of HEIs might be in contributing to this sustainable future. Analysis of the relevant data resulted in another five themes on the role of the HE sector as a whole and how it might contribute to ESD (Table 2).

Role of HEIs in Sustainable Development of Myanmar	*Coded References*
Investing in education as a foundation of society	14
Preparing students with sustainability literacy and attributes	90
HEIs as exemplar learning hubs	31
Contributing through quality research and innovation	25
Influencing policy leading to sustainability	12

Table 2: Themes for the roles of HEIs for sustainable development of Myanmar

In this case preparing students with sustainability literacy and attributes has more references than all the other themes combined. In addition, it was also possible to define what should be the relevant attributes that all graduates should develop through their learning at these HEIs, although more details on this issue of graduate attributes is addressed in Lwin, B., Lane, A. and Slater, R. (2024).

Expanding slightly on these two sets of themes, a democratic government and a healthy political system without any physical violence or civil wars was expressed as a desirable political future. In the economic view, fulfilment of basic needs, fair opportunities and sharing of benefits, just distribution of power and caring the environmental health system are the key concepts for a sustainable future. Regarding the environmental view, destructive and unethical industries or businesses without sound sustainable environmental management should be curtailed. Education needs to be re-enforced to ensure all citizens care, and use the resources respectfully, and learning from ancestors' sustainable practices should be encouraged. The socio-cultural view reflects the philosophical views in terms of ethical values and social justice. It embraces values such as inclusive decision making and appreciating diversity, mutual respect, and collaboration, sharing power and resources in a just and fair manner, fulfilment of basic needs, happiness and freedom of faith and cultural practices. Without these qualities in society, there will likely be more conflicts and violence over natural and social environments. According to the ethical values and moral constructs in the philosophical view, development interventions need to be locally relevant and feasible, and should not lead to dependency. Current generations need to be resilient to climate change and should be able to pass this knowledge to future generations.

These features of the desirable sustainable development/future of Myanmar can be taken into consideration in a nationwide reform process for ESD across Myanmar's HE sector. More investment is needed in Myanmar HEIs in providing quality service and facilitating students' learning process and research activities. Moreover, HEIs should act as learning hubs for their communities and the public. These might prepare the students with desirable graduate attributes to contribute to the expected sustainable development or future of Myanmar. Both the HEIs as learning hubs and their graduates will potentially help build more awareness and normalise sustainability practices amongst wider communities. On the other hand, the advancement in research and innovation contributed by the HEIs can help inform policy and recommendations for contextually relevant development. The graduates equipped with

relevant sustainable literacy and attributes will potentially contribute to desirable sustainable development implementations in the country. These ideas for HEI's contributions or engagement in ESD are much like those discussed and claimed for ESD in the literature (for example Liu and Kitamura, 2019; Abunasser, AlAli and Al-Qahtani, 2022).

However, there were also elements in this Myanmar specific data not widely highlighted in the published literature:

- HEIs need to invest and put effort in policy focused research and be actively engaged in the policy influencing process.
- HEIs need to learn from their alumni and their communities, including indigenous knowledge and traditional practices (Myanmar is very diverse in terms of ethnic groups and cultures).
- While ESD in the Myanmar context is like the common international/ western view that more readily links sustainability with environment or climate change, the participants from Myanmar also had a strong focus on justice and equity (which accords well with SDG 4 target 4.7 quoted earlier but is not foregrounded in western interpretations of ESD).

As previously outlined, ESD is relatively new to Myanmar HEIs. There was a need to have a collective understanding and conceptualisation of desirable sustainable development (SD) and ESD in the Myanmar context, before considering how they could be integrated into Myanmar HEIs. It seemed probable, given the in-country context, that future ESD integration into HEIs would need to be a parallel process alongside HE reconstruction. In doing so, it was also important to understand what needed to be changed to enable the reconstruction of Myanmar's HEIs that might support the teaching of desirable graduate attributes. Further analysis of the qualitative data provided several sub-themes under these two main themes of ESD integration and HEI reconstruction (Table 3).

Theme and Sub-themes of ESD integration and HEI reconstruction	Coded References
3.1 Ways to integrate ESD in HEIs	
Campus – a learning hub for sustainability practices	21
Community – Creating a community of learning, supporting, and collaborating	120
Culture – Cultivating desirable leadership and happy working environment	45
Curricula – embedded sustainability, locally relevant, flexible, and accessible	38
Pedagogy – appropriate teaching methods for ESD attributes	44
Research – research learning and research projects for both students and teachers	40
3.2 Reconstruction Needs for HEIs	
Administrative and quality assurance systems	48
Curricula and materials	45
Human resources development	36
Ideological reconstruction	100
Physical reconstruction	14
Psychological reconstruction	29

Table: 3 Themes and sub-themes of ESD integration and HEI reconstruction

To reiterate, ESD integration can be viewed as practices that individual HEIs should do whereas reconstruction can be viewed as required changes in the principles or policies in the HE sector in Myanmar to enable and inform ESD integration. Nearly all the sub-themes for ESD integration have some overlapping coded references with sub-themes for educational reconstruction but there were three with significant overlaps - with curriculum being an obvious one, also ideological reconstruction with pedagogy, and community with human resources development. As before, the intersections/interconnections between themes and sub-themes are often as important as the themes and subthemes themselves. Furthermore, the data supports the proposal to add pedagogy to the 4C model while also adding quality assurance as an explicit theme in the educational reconstruction model.

Recommended Changes for Policy, Principles and Practices

Based on the analyses briefly discussed here and those described in Lwin et al (2024) the following recommendations, for changes to in both policy (or principles) and ESD practices, are made, for the transformation of Myanmar HEIs which will potentially contribute to the development of desirable ESD graduate attributes for the conceptualised sustainable future for Myanmar (Table 4):

Policy and Principles	Practices
Ideology ➢ Vision and mission ➢ Autonomy & Academic freedom ➢ Collaboration	• Inform staff and students • Operations, and decisions guided by ESD • Encourage alternative teaching/learning methods • Collaborate with different stakeholders • Provide learning spaces (culture, non-violence, diversity, natural environment)
Administrative principles and systems ➢ Own charters (federal democracy) ➢ Reliable and feasible quality assurance and accreditation system ➢ Democratic values (policies and procedures)	• Facilitate active learning • Provide freedom in selecting the modules • Monitor services and progress • Learn from experiences to ensure graduate attributes • Encourage Students' Associations (extra-curricular)
Human resources development ➢ Own HR policies ➢ Guided by conceptualised ESD ➢ Teachers' professional development (PD) and qualification framework	• Create supportive/nurturing working environment and cultivate desirable practices to become norms • Ensure all decisions and management promoting and respecting multicultures and minorities • Prioritise assessment and management for teachers' PD
Psychology ➢ Leadership embracing mutual respect and empowerment ➢ Respect and care for the natural environment (core policy)	• Encourage democratic practices, empowerment, mutual respect, and collaborative learning in all types of leadership (supervision, and teachings) • Contribute to the students' development (attitude and behaviours) regarding the sustainability
Curricular reconstruction ➢ Locally relevant curricular contents from ESD perspective ➢ Locally relevant degree programmes	• Integrate ESD into the curriculum • Offer a special module (Institute-wide course) • Apply hidden-curriculum approach • Deliver SD degree/diploma programme • Encourage research-based teaching and learning
Physical infrastructure and facilities ➢ Sufficient budget/fund for the required assets and facilities ➢ Infrastructures for stakeholders' wellbeing, supportive learning, and sustainable practices	• Provide sufficient facilities and services (e.g., library, laboratory, sports, and green campus practices) • Upgrade internet service and online technology to enhance teaching and extend services to remote areas • Provide suitable infrastructure/facilities to teachers

Table 4: Recommended changes in policy, principles and practices for Myanmar

Concluding Remarks

This paper has provided a brief account of some aspects of a doctoral study investigating the principles, policies and practices needed to implement education for sustainable development into HEIs in Myanmar. This study examined how a sustainable future for Myanmar might look, what types of reform and reconstruction would be needed following any changes to the unstable political situation in Myanmar, how HEIs could transform their own practices and what attributes graduates needed to be able to contribute to the reform and reconstruction (not covered here but discussed in Lwin et al, 2024).

ESD is an ever-growing part of higher education worldwide although dominated by more developed countries. The many networks and projects over the years have come to highlight the importance of taking a whole institution approach to the implementation and integration of ESD within an HEI and equally the reconstruction of HEI after conflict. This study has found that to also be the case in Myanmar, although we have suggested additions to two of the more common models in the literature and also shown how both models can be used alongside each other. However, while many of the findings resonate with those described in the literature there are also aspects that were specific to Myanmar but may have relevance to many other countries, as are the research methods used to generate contextual data.

First, SD/ESD needs to be contextualised to the social, cultural, environmental, political, and philosophical factors of a country rather than adopting international guidance as is. International guidance can provide a starting point for discussions within a country, but internal consultation and dialogue is more important so that a reasonably common understanding of what is required is developed and this research itself provides a starting point for that dialogue.

Second, the common view of a desirable sustainable future arising from such consultation and dialogue needs to inform sector-wide and institution specific policies and practices by linking the two perspectives of a sustainable future for Myanmar and roles of the HE sector in contributing to that future. And while common, such views need to accommodate the diverse communities within a country.

Lastly, the principles for HEI reform and reconstruction should inform and accommodate the approaches used to integrate ESD which in turn should be supporting the development of the ESD graduate attributes deemed necessary. While graduate attributes are not the only outcomes of the activities of HEIs that can contribute to a sustainable future they do provide the best way to scale up the impact of those outcomes.

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