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Realization of Gross National Happiness-inspired green education in Bhutan

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Abstract

Green education as mentioned in Thakur S. Powdyel's *My Green School: An Outline* (2014) was developed to support democratic Bhutan's initiative 'Educating for Gross National Happiness' (EGNH), pinned on the nature-culture axis. The initiative motivated the educational institutions to imbue their teaching-learning environment with the values of Gross National Happiness (GNH). However, in terms of holistic development in modern education, the concept requires an integrated understanding beyond the explicit meaning of green, which primarily denotes nature and the environment. The eight dimensions of green school, denoted by the term 'Sherig Mandala' and designed in a concentric sense, hold a critical significance. Besides dealing with the idea of education through the natural environment, the concept also has a major claim on an individual's life and learning on a moral level, integrating the physical and psychosocial ambience. It attempts to establish that the process of learning is the key to understanding the principles of life.

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With the core value of education being jeopardized in modern times, the paper attempts to ascertain the meaning and purpose of learning for a holistic life. The inherent meanings of the elements of greenery such as natural, social, cultural, intellectual, academic, aesthetic, spiritual and moral were examined to comprehend their philosophical intent. The significance of the concept was examined not in isolation but in correlation with the nine domains of Bhutan's developmental philosophy known as GNH. Further, the paper has also affirmed that the conceptualization of 'Green School' in Bhutan is quite different from other countries around the world because it focuses not on the buildings and infrastructure, but on the behaviour and the core inner aspects that each child requires. This is to emphasize the fact that only the nobility of mind, heart and hands would empower the learners.

Introduction

Green education is today, increasingly being accepted as an important crusader in bringing about a paradigm shift in the way the world perceives man's connection with nature. In educational parlance, green education is simultaneously called environmental education which aims toward a critical pedagogical approach to schooling people on environmental issues, ecological concepts, and sustainable practices which could have long-lasting ramifications if they are not addressed early and in the right way. "The goal of green education is to empower individuals with the knowledge and skills to make informed decisions that positively impact the environment. On the other hand, greening education focuses on incorporating sustainable and eco-friendly practices within educational institutions themselves" (Said et al., 2023). Green education goes beyond traditional classroom teaching and learning.

The objective of green school endeavours in an educational institution is to ensure that the education delivered not only encompasses knowledge but also the essential competency and values for a sustainable development of the community. To achieve this aim, the school governance must forge community partnerships that engage with the local stakeholders to drive home the point of environmental protection which in turn impacts the community's social, economic and cultural components. Green education unravels the spirit of oneness in nature and human life. Practitioners of green education who share their learning and experiences can compare this with other projects in the region. For instance, the green school in Bali, Indonesia is defined as a natural, holistic, student-centred learning environment that empowers students to be creative and innovative as green leaders. According to MoE (2011b), in Bhutan, the concept of 'Green School' includes not only the teaching and learning institution but also the village communities. Such a praxis will spread the need to develop attitudes and behaviours that will support partner communities and even countries to establish sustainable methods of conducting businesses. This can result in a paradigm shift in the ethics associated with teaching environmentally sustainable models of practices and behaviour in schools and developing environmental sustainability in the community.

Background

The term 'Green School' has equivalent names around the world, such as 'Enviro-schools' in New Zealand, 'Green Schools' in China, Hong Kong and Israel, 'Eco-schools' in Canada, 'Green Flag Schools' in Sweden and 'Sustainable Schools' in Australia and the United Kingdom (Gough, 2019). Gough also informs that these countries have created sustainable green school buildings that provide a conducive learning environment for teachers as well as students. The Green Schools programme aims to give educators and students ownership of the issues needing resolution and a sense of empowerment over the environmental challenges they face (United Nations Educational, Scientific, and Cultural Organization, 2014).

Drakpa and Dorji (2013) found out that in countries like Ireland, the scheme is used to promote and acknowledge long-term, whole-school action for the environment. It is to be noted that these nations use the model of a green school to disseminate environmental education; thus, Yangdon (2019) asserts that in most of the countries other than Bhutan the motive of 'Green School' remains the same that is to garner the importance of environmental awareness with its focus on learning environment only. However, the conceptualization of a 'Green School' in Bhutan, is quite different from other countries around the world because it focuses not on the buildings but on the behaviour and the core inner aspects that each child requires. Bhutan considers 'Green School' as an all-encompassing and empowering model ranging from physical to moral dimensions fostering an integrated system of learning that children deserve. It is believed that such a concept would help learners to grow into a well-rounded individual into fullness realizing the nobility of mind, heart and hands. The concept will be further validated in the paper by analysing the integrated wholesome values present in the eight elements of a 'Green School'.

The Eastern world believes that education facilitates self-discovery which results in an individual becoming aware of his or her potential with conviction and virtuous disposition. Bhutan's distinctive development trajectory under the guidance of its historical and current kings mirrors its approach to educational development. For over a thousand years, Buddhist monastic education was the primary form of schooling in Bhutan that believed education was only aimed at dispelling ignorance and seeking knowledge. In contrast, secular education that emerged in the latter half of the twentieth century began to see education as a means to an end, specifically geared toward job market readiness. The Green School model unites the contrasting features of monastic and modern education, blending values and skills in a cohesive manner. Thus, the eight elements included as the key dimensions of a Green School are identified as the cornerstone of education.

Discussion

The Green School for Green Bhutan programme evolved under the aegis of the Educating for Gross National Happiness (EGNH) initiative to help reach the goal of Gross National Happiness (GNH) (Powdyel, 2014). Bhutan's development philosophy of Gross National Happiness over Gross National Income is mindful of happiness and wellbeing to an extent that GNH guides its policies, curriculum, decision-making and societal goals. Ultimately, happiness is a matter of perception; a state of mind; a fact that is fully acknowledged by Buddhism and other world faiths. In 2010, Bhutan's Ministry of Education put forth a widespread reform program named Educating for Gross National Happiness which was to be achieved by supporting Green Schools for Green Bhutan, and consequently, schools across Bhutan instituted the programme. Education being a critical factor in the four pillars and nine domains of GNH, the cardinal elements of the model proposed for Bhutan's education system in association with the core ideas of the nation's Gross National Happiness philosophy highlight

the strategies involved for the wholesome development of a child in schools. Gyeltshen (2016), an educator in his doctoral thesis titled, 'Contemplative practices and learning: A holistic approach to education in Bhutan' defines 'holistic education' as a system that considers the affective dimension of learning as much as the cognitive dimension. While cognitive learning takes care of knowledge and skills for workforce development, affective learning promotes socio-emotional skills, spirituality and social-cultural values. In this direction, the end goal of both Green School and GNH are to produce wholesome individuals by linking both the affective and cognitive dimensions. The nine domains of GNH intend to produce individuals with community vitality and concern for nature, uphold culture and tradition, and judiciously use resources for a harmonious society. Along these lines, Green School aspires to facilitate holistic education that would build the much needed humanistic and moral values in individuals since childhood.

'Sherig Mandala', literally meaning 'Education Circle' contains the elements of a Green School arranged in concentric layers. The dimensions move inward from the periphery to the core starting with natural greenery and gradually in a phasic pattern, moving towards the moral greenery emphasizing deep learning and the fact that morality is the fundamental element of Bhutan's education system. Though natural greenery helps individuals to sustain on the physical level with its conducive environment, moral greenery is what the education fraternity needs today when the standard of education has become debatable. Metaphorically, the term 'green school' indicates both the external and internal environments and in Bhutan, a green school refers to the eight different greeneries viz., environmental, academic, intellectual, moral, aesthetic, social, cultural, and spiritual balance, which are deemed necessary for the organic growth of every student in the school (MoE, 2012). The eight green dimensions do not just educate children to love, care, respect, and conserve natural resources as information-oriented learning. It also aids to realize the interconnectedness between the environment and inner self. Unlike the modern education system, wherein the 3Rs namely reading, writing and arithmetic delivered in the classroom focus only on the cognitive aspect of education and not on the whole person, the eight elements of a Green School will help to modify the behaviour towards anything and everything surrounding him / her that makes up the whole.

The concept of 'Green School' suggests that 'Green' institutions refer to the physical aspect of the surroundings, the general layout, the ambience and the objects that make the exterior of the school a part of the vital components of learning. The color 'green' symbolizes nature which is life-giving. Powdyel further adds:

Such an environment is welcoming to the eyes and the mind. It lifts the heart and sharpens the sensibilities of the viewer. Learners feel invited and welcomed. This human-environment bond enriches the experience of living and learning. This mutual support system sustains life and living. The colour and character of school change with the seasons and delight the givers and the receivers of nature's gifts (Powdyel, 2014, p. 14).

A green school fosters and advances a very active involvement both by parents and the community. "Along with several studies in terms of reflections on Gross National Happiness in the education context and globalization, as well as the context of development, Powdyel's Green School describes all the fundamentals, as well as many other crucial aspects related to greenery concepts in the entire school, as a whole-green-school approach for future education" (Hoang & Lin, 2024, p. 1). Sithey et al. (2015) believe that Gross National Happiness advances health as per the guidelines of the World Health Organization (WHO) charter. It can do so on a large scale, and in doing so, it highlights the interconnectedness of the environment, sustainability, governance, and social factors. The core message of *My Green School* is often applauded as a milestone contribution in global education.

According to the MoE (2015), a green school approach entails "The use of the whole school behaviour starting with school management and administration, morning assembly, classroom teaching, co-curricular activities, formal and non-formal teacher-student interactions, school-community relationships and all the other dimensions of school behaviours. However, it is even more important for teachers and principals to collectively realize... the sacred onus to make this possible through whatever specific innovative strategies that work best in their schools" (MoE, 2015, p. 121). Following the implementation of the EGNH through building Green Schools for Green Bhutan, "several schools have reported visible and substantial improvements in terms of physical ambience, mindfulness, students' understanding of and regard for culture and nature" (MoE, 2012, pp. 3-4). Powdyel believes that it helps to improve both academic performance and behaviour, and significantly mitigate disciplinary issues. The end goals of both 'Educating for GNH' and the concept of 'Green School' are common, that is to make learners aware of their own self and make contemporary education an all-inclusive phenomenon.

In the schools of Bhutan, the applied aspects of the green domains are integrated into the curriculum. For example, in science and social studies, topics on 'Our environment', 'Waste Management', and 'Green Plants' are part of the teaching and learning for classes four to six. It is also compulsory for the classes, from pre-primary to sixth grade to have a minimum of five potted plants in the classroom. As part of the Social Forestry Day on 2nd June every year, Green Education implements tree plantation; on the World Environment Day, school students and the members of the community unite to carry out a mass cleaning campaign. Plantation of flowering and ornamental trees, along with saplings of cherry blossoms and Jakaranda plants that are collected from the neighbouring towns ensure ecological vitality (D. Lhaden, personal communication, 6 November, 2024). A focus group discussion was held with the management team and teachers of two schools located in the vicinity of Kanglung in Eastern Bhutan, namely Kanglung Primary School (KPS) and Jampeling Central School administered by the Ministry of Education and Skill Development (MoESD). In both these schools, certain 'green' practices are commonly held. Monday is a green day that says no to plastic, and it is mandatory for the students to carry greens in their lunch pack. The same policy is adopted by the school mess in the

Central School which provides meals for the students. A junk food penalty is levied if students bring junk food to the school premises. Such practices blend natural greenery with academic greenery to create a complementary text and context-based learning environment.

Similarly, there are activities that strengthen the values of GNH in terms of the physical, social, cultural, mental and spiritual health of both students and staff, thereby contributing to the idea of holistic education. Under the guidance of the Bhutan Scout Association, schools organize Scout programmes to develop life skills and problem-solving abilities in students. During the current year, Jampeling Central School organized a two-day outdoor camping activity for 113 students of classes VII, IX and XI respectively, escorted by five teachers. The objective of this outdoor activity was to help students experience nature, away from academic pressure, and learn basic survival skills including cooking. Following the directives of MoESD, the schools host the annual Games Carnival that includes competitions to help students unwind from academic pressure while fostering teamwork, sportsmanship, and fitness. Cultural events and variety shows featuring songs and dances in Hindi, Nepali, English, and Bhutan's national language, Dzongkha, celebrate diversity and vitalize the community (Chhimi, personal communication, 18 November, 2024).

Mentoring students is a routine activity with a bid to boost academic performance and welfare besides ensuring their mental well-being. To further strengthen the psychological well-being of the students and staff, mindfulness meditation and the Bhutanese traditional practice known as *Sorig Zhiney Lijong*, a practice akin to Yoga encompassing breathing and physical exercises, are offered in the campus every Saturday for two hours by trained practitioners. This sort of training sharpens the focus of the students and assists them in maintaining a balanced approach in life. The schools conduct an annual religious ceremony called *Rimdro* to pray for the welfare of sentient beings. During the pooja, both students and parents collectively contribute their services to fulfil the social and cultural components of the green school paradigm on this auspicious occasion. Members from the Central Monastic body are deputed to visit the school and deliver talks on values, ethics, culture and tradition which attend to the moral aspect. The school management also invites monks from the local monastic body known as *Kanglung Shedra* to give spiritual talks to the students. The students also form groups to perform songs and dances during the three-day local festive celebrations like *Tsechus* and *Drupchens*, which are as much a social event as they are religious, representing the communal cohesion, cultural ethos and the spiritual teachings of gurus in Buddhism displayed through mask dance performances. (Gyeltshen, personal communication, Nov.18, 2024). The masks and costumes used in the *Cham* dances and ceremonies are handcrafted to represent various deities, demons and animals from Buddhist mythology that tell symbolic stories and impart moral lessons about life's impermanence. By declaring local holidays during the celebration, it is ensured that Bhutanese families of old and young attend community functions and religious programs that help them stay rooted. In every sense, this vibrant festivity offers a colorful insight into the sense of unity for the youngsters, making them

embrace their heritage and religious beliefs with national pride.

The above-mentioned practical initiatives have motivated the educational institutions to imbue their teaching-learning environment with the values of GNH. The doctrines of GNH were intrinsically infused in the school curriculum at all levels. According to Hayward and Coleman (2010), there is an emphasis on an organic understanding of ecological consciousness, a holistic insight into the Earth, reverence for ancient wisdom, and commitment to caring for nature. Such an integrated approach achieved through the eight dimensions of greenery applicable to a Green School has been listed by Powdyel as follows:

1. Environmental greenery is the ability to discover and honour our vital link with all life-forms around us and beyond us and that sustain us.
2. Intellectual greenery is the positive disposition to new ideas, knowledge, and information; openness of mind to seek and value new discoveries and insights and examine their merit.
3. Academic greenery is the ability to discover and to value the great ideas that define and give vitality to the many academic disciplines that we study in schools.
4. Social greenery is the ability to build relationships, goodwill, and positive energy and release these to the society around us and beyond us.
5. Cultural greenery is the appreciation of who we are and what makes us who we are, our values, sensibilities and worldview.
6. Spiritual greenery is an acceptance of the need for a higher, nobler, and sublime object to realize greater fullness and completion for our limited and unfulfilled lives.
7. Aesthetic greenery is the ability to extend the range of our sensibility to appreciate objects and ideas that elevate and edify our life beyond the mundane.
8. Moral greenery is the ability to distinguish between categories of values that give us our special character as the human of the species.

These eight components of a Green School also resonate with the primary goal of achieving happiness and the national objective of Gross National Happiness by covering the essential domains such as psychological well-being, health, education, culture, good governance, ecological diversity, resilience, and living standards. Together, they groom and nurture students.

The schools of Bhutan in general and the two specific examples considered for this study align their vision and mission with the domains of GNH philosophy and its ultimatum to achieve the happiness index. To live by

the maxim, 'a sound mind in a sound body', the Central School appoints a Health and Well-being coordinator to monitor children's health, attend to the boarding students during their illness and escort them to health centres and hospitals when necessary. International days are celebrated to promote good practices such as handwashing, menstrual hygiene, and BMI monitoring. Educational programs on nutrition and the prevention of non-communicable diseases raise student awareness. Reports are then submitted to MoESD.

In the domain of education, teachings on Buddhist philosophy and ethics are integrated to foster a culture of respect and moral integrity in the younger generation. It is believed that education is a holistic approach to nurturing the mind and spirit in accordance with Buddhist principles. As a result, Buddhism influences Bhutanese education by teaching values such as compassion, empathy, community service, respect for nature and all living beings that extend beyond academic knowledge to inculcate good human qualities. The value of respect ingrained in the culture and tradition of the Bhutanese not only defines their identity but also promotes cooperation, communal efforts to live sustainably and reduces conflicts over human and natural resources. The core Bhutanese values of *Tha-Dam-Tse* and *Lay-Ju-Dey* aim at the preservation of their unique culture and tradition and their contribution to nation-building. "Tha-Dam-Tse refers to loyalty, integrity, and honouring sacred commitments to others or the nation, emphasizing sincerity and respect in fulfilling one's duties. The *dam-tse* between the king and the people, parents and children, teachers and students, superiors and subordinates, and so on, is deeply rooted in the bloodline of the Bhutanese" (Phuntsho, 2024).

The value system is infused with Bhutan's cultural manifesto referred to as *Tsa wa Sum* or love, loyalty and dedication to His Majesty the King, the country and the people, "thereby urging every Bhutanese individual to actively contribute to this common goal of national and ideological importance." (Aris & Hutt, 1994, p. 153). The law of causal effect, guided by the principle that actions are not without consequences, is emphasized by *Lay-Ju-Dey*, who has governed the thoughts, speech and deeds of the monarchs. These values are a crucial part of the free education system to lay the moral and ethical foundation in the younger minds with the goal of building a strong character in Bhutanese students. The value-based and skill-oriented education enables the Bhutanese student community to become 'locally rooted and globally competent' to realize the vision of His Majesty the King, thus making them invaluable future citizens of the GNH nation. To develop the skills and creativity of the students, the management team of the Central School shared information about the club activities held for students. The club programs in the school, ranging from traditional to modern-day activities, include traditional as well as contemporary art and painting classes, *Cham* or Mask dance practice, tailoring, multimedia, vlogging, choreography and student-run salons, with student coordinators for UNESCO and Home Science forums. In addition to co-curricular and extracurricular activities, literary activities like debate, essay and story writing, storytelling and drama competitions are conducted to empower the students to participate and acquire the skills that would help them gear toward

wholesome development and value-laden education. (U. Wangchuk, personal communication, 18 November, 2024).

One of the domains of GNH includes making students realize the value of time, and teachers put in consistent efforts towards this. In the digital world of today, the school works actively to curb time spent on devices and doom scrolling of students on social media. Solutions are being worked upon to restrain this issue among day scholars and boarders, and ad hoc checks are conducted even at midnight by wardens of hostels. There is also a focus on good governance which is amply demonstrated using a voting machine (EVM) for the selection of student leaders. Accountability in work and finances, establishing transparency and judicious use of resources are all considered as good governance. An example of this is taking their feedback when creating the menu for the students' mess. Accountability extends to the area of His Majesty's Kidu (donation), wherein the recipients of this donation are reminded of their responsibilities as recipients of this generosity. Community support is visible during times of crisis. Whenever there is a grievance in the family of teachers and students, they collectively visit the family to render them emotional support and make nominal contributions to help the family. (T. Yangki, personal communication, 18 November, 2024). Thus, the rules and regulations of the schools of Bhutan infused with GNH principles and Green School initiatives build the students' character.

The dimensions of greenery are in close alignment with the relevant domains of GNH. According to the self-assessment tools for the Green School domain, the first claim of a 'Green School' insists that students coming to school should discover their relationship with planet Earth, and by doing so, they would learn the value of honouring and appreciating nature and their physical environment. The dual purpose of a Green School is both conserving and learning with nature. The second important claim of 'Green School' is the social greenery. When boys and girls come to school they do not come as an individual but with their families and society. Therefore, schools must be a place where children celebrate diversity and trust each other. The creation of such positive energies gives young men and women a holistic outlook on life and society. Unfortunately, education today does not touch the deep core of learners in relation to their sense of belongingness, solidarity and fellowship with other human beings. Despite achieving high marks in examinations, students often end up isolated and alienated from society and culture. Thus, the objective of 'Green School' is to prepare young boys and girls to realize that they are part of a society, and they belong to a culture. This is how cultural greenery helps students discover their roots rather than becoming rootless and estranged.

Education in 'Green School' believes that ideas are important, so intellectual greenery helps children keep their minds open to new knowledge and new ideas. When children have understood the essence of natural, social, cultural and intellectual greenery, they would be able to absorb learning from books. This is called the academic greenery (Powdyel, 2014). Powdyel also underscores the fact that education should protect the integrity and uniqueness of the learner by reminding the children of their inherent talents and

potential. Hence, it is important to create space for children to identify their talents. Therefore, there should be room for arts, music, sports and moments when children can go out and listen to sounds, smell beautiful fragrances and understand what beautiful nature has given us. This is the aesthetic greenery that each child must learn to appreciate. Like aesthetic greenery, spiritual greenery brings a sense of fulfilment as it helps children associate them with something greater, better and holier. Tangible spiritual greenery discovered in the schools were the prayer, value talks, explanation of the prayer, value slogans and thoughts of the day, as well as mind training offered in selected schools. This fact affirms that spiritual greenery is the binding component of the other seven elements for effective implementation. The critical element of moral greenery teaches children to distinguish between what is right and wrong, thus making each child ethical and mindful.

Serving as a conduit for knowledge, the green school is instrumental in arming children with the intellectual, emotional, social, and moral resources required for their evolution. By promoting environmental sustainability, a Green School builds a society that values the planet while equipping students with eco-literacy that provides the skills, information, and ethics necessary to deal with environmental challenges, and work towards a future that does not degrade the environment for future generations. Instruction from the school level would help to inculcate a positive attitude from a young age and foster a need to preserve the ecosystem. This will manifest in myriad ways such as adopting better ways of conserving energy, waste reduction and management, water conservation, and making informed decisions on product purchases. Such habits can spur people to participate in the pursuit of actions that seek to motivate sustainability, propose policy changes to safeguard sustainable practices, encourage businesses that are conscious of their carbon footprint, and work to disseminate information on environment-friendly actions and methods. This will forge an interdependent structure between the environment, society and the government.

To emphasize the fact that children should be learning meaningful lessons for their holistic growth and development, the Ministry of Education has framed the school self-assessment rating tools in which the Green School domain receives major attention among the other parameters of rating tools. The Green School domain is further sub-categorized into physical and psycho-social ambience (MoE, 2011b) with the aim to educate children about the future and make them conscious of their actions and thoughts by addressing the eight elements of a Green School and the nine domains of Gross National Happiness. Tables 1 and 2 describe the tools that ensure a conducive teaching-learning environment where all children in the school receive equal and fair treatment with attention to their basic needs, assurance of safety on the premises and monitoring of everyone's personal health, hygiene, and growth.

The tools under the physical ambience build a learning ecosystem that is safe and secure, clean and litter-free, attractive and peaceful. Such an exciting and stimulating environment would make children feel invited, welcomed

Table 1. Physical ambience.

Indicators
1 The classroom is clean, safe and conducive for interactive teaching/learning activities.
2 The school has adequate and clean toilets separately for girls and boys.
3 The school has safe and sufficient drinking water with functioning taps.
4 The school is litter free with proper waste management practices.
5 The school adopts and advocates a 'No Plastic' policy in school and community.
6 The school has a well-maintained flower garden, hedges and plants in all relevant places.
7 The school promotes organic farming and local products through school agricultural programs.
8 The school encourages healthy food habits. For example, nutrition guides displayed on walls, to avoid food wastes, junk food.
9 The school practices strong conservation ethics (saving electricity, water, paper use)
10 The school promotes and demonstrates knowledge on eco-literacy like climate change, resource conservation, impact of pollution and consumerism.
11 The school uses outdoor for enriching teaching and learning (field trips, local wisdom)
12 The school adopts water sources, streams, sections of rivers and forest and provides sustained care, cleanliness and preservation.
13 The school harvests rainwater.
14 The school practices reduce, reuse, recycle and refuse.
15 The school environment is free of graffiti.
16 The school ensures timely maintenance of school buildings and other infrastructure to provide a safe environment.
17 The school has recreational places.
18 The students are clean, tidy and healthy.

(MoE, 2011a, p. 26).

and happy to come to school. Each of the indicators helps to nurture the learners in a wholesome manner as they contain inclusive values. However, to transform schools into a holistic place of learning, the role of teachers assumes a critical significance. Teachers need to rekindle in the minds and hearts of learners an increased awareness about the strengths of values the indicators inherently possess. For example, it is the duty of the teachers to ensure that children learn the 'dignity of labour' while they tend to their little flower and vegetable garden. Without value inculcation, any extracurricular activity will only be viewed as a mere external activity to win the competition or to be just fulfilled for the sake of it. Drakpa and Dorji (2013) claim that Green Schools are basically concerned about love, care, conservation and respect for nature, with the noble intention that the values derived from the tools are wholesome and all-inclusive. Therefore, a Green School is more than the physical environment wherein the academic and intellectual climate of the school provides learners with skills and attitudes to become responsible citizens and contribute to the progressive welfare of their society.

The school's psychosocial atmosphere includes aspects of students' well-being, respecting individual differences, and encouraging participation. The indicators help learners become mindful and conscious about self and others. For example, individual attention is provided, and students from disadvantaged families are supported with basic requirements such as school uniforms, tuition fees, and stationery items. Such support helps underprivileged students to continue with their studies. Thus, the tools under the psycho-social ambience of Green School domain would help teachers strengthen the students' minds, fortify their hearts and vitalize their thoughts. Thus, the school

Table 2. Psycho-social ambience.

Indicators	
1	The school has safe, caring and supportive environment (e.g. absence of abuses, bullies, corporal punishment, humiliation and harassment)
2	The principal and staff talk with learners outside the class and school.
3	School promotes mind training and mindfulness practices as a normal part of school life.
4	The school has remedial programs and services to help all students succeed.
5	The school practices a variety of positive discipline techniques.
6	The school conducts counselling programs and services with protocols for referrals.
7	The school has life skills provided to students.
8	Each student has a proper health record maintained by the class teacher/warden/matron/PE teacher.
9	All children feel cared for and supported.
10	Teachers and students feel that they are succeeding.

(MoE, 2011a, p. 27).

management and teachers are instrumental in fulfilling the requirements under the psycho-social ambience of Green School. Although modern education basically aims to enable learners to cope with scientific and technological knowledge, the Green School model of education can help to redefine these skills. By combining the values of both monastic and modern education, Green School acts as a point of convergence. Instead of solving the problems and filling the voids left by modern education, the model prepares individuals with the moral strength required to deal with unexpected challenges and contemporary crises. The values contained in the eight cardinal elements of a Green School develop the moral strength of children and youth to build resilience against such challenges.

The concept of 'green' in Green School transcends mere color or ecological concerns; it reflects a green philosophy that shapes every facet of the students' experiences. As with the case of the eight green dimensions of a Green School, the nine domains of GNH also groom learners to be imaginative, alert, insightful, and proficient enough to address various challenges so as to uphold the long-established traditional values of Bhutan as a nation. If education is aligned with standardized tests, children may not fully understand the real-life impact of their actions. Instead, they learn best from topics that are discussed and thought about in relation to their immediate experiences.

There has been heightened extant discourse in academia and industry about sustainability agendas within higher education (Tan et al., 2023, pp.316). The application of greening education was included in the pedagogical practices of the module titled 'Ecocriticism' offered for the students of MA in English at Yonphula Centenary College under the Royal University of Bhutan. The module explored the relationship between literature and the physical environment by studying the interactions between human beings and nature from two perspectives, namely, 'nature as celebratory and minatory'. (DPD, 2017). In keeping with green education principles, this module familiarized students with ecology, community involvement, sustainable lifestyles, environmental mindfulness, and the tenets of earth democracy. Students were also exposed to several literary works representing the natural world and ecocentric

perspectives. For example, the subject matter called 'Green voices' included both the Western and Eastern perspectives of human-nature interaction ranging from Thoreau's Walden and Momaday's House Made of Dawn to Mahasweta Devi's activism and Gulzar's Green poems. In the context of Bhutan, the essential reading list includes the keynote speech delivered by the former Prime Minister of Bhutan, Jigme Y Thinley in the College of Bio resources and Agriculture at National Taiwan University during April 2014. The speech titled 'Earth's vitality and the power of happiness: A call for organic farming' made a huge impact on the masters' students of YCC. The idea was implemented as part of their project assignment by creating a greenhouse between the campus and the students' hostel. Students of the fourth cohort planted and nurtured a variety of local vegetables like greens, peas, cabbage, cauliflower, beans, carrot and mint leaves using organic farming practices, and shared the yield.

As part of a social commitment project, students from various cohorts explored ecological practices such as waste and water management, recycling, conservation of nature by creating an eco-park, and the sustainable use of natural resources and organic farming. By addressing the sustainable ecological issues of everyday life, students developed a scientific outlook and used an ecocentric lens to understand the relationship between nature and culture. An educational field trip was organized to expose students to Bhutan's ecologically sustainable practices under the project titled, 'Understanding sustainable practices in the traditional industries of Bumthang valley.' Over the course of four days, students visited jam production units in Bumthang to analyse the use of local products in the food processing industry of Bhutan, and then toured a beekeeping farm to explore the beekeeping and honey making industry to understand the ecological importance to gain insights of bees aiding to sustain the environment. Finally, they visited the Yathra textile production units to observe the traditional textile production process and to learn about the deep connection between Bhutan's handloom culture, ecology and local resources. During these visits, students documented their discoveries, challenges and opportunities along with photographs. These findings were the basis of their project symposium which involved submitting a report and delivering a presentation. It is to be noted that an individual's perceptions of, and orientations towards, sustainability and related socio-environmental concerns impact how they perceive the concept, its contributing effects and potential solutions to address concerns, including attributions of responsibilities (Tan et al., 2023, pp.316). Thus, the purpose of the study tour was to investigate how locally available resources can be used in livelihood systems without affecting the ecosystem. Further, the project aimed to broaden the understanding of students extensively in the following areas: Handloom and traditional resources in Bhutan, Food habits in Bhutan and its ecological value, Buddhism, women and ecology in Bhutan, Biodiversity conservation and terrace farming in Bhutan and Ecologically sustainable practices of tribal communities in Bhutan. Overall, the objective of situational analysis by way of project-based learning was to explore possible strategies regarding how mini-industries manufacture products with locally available raw materials, and how these products and practices adapt to local environmental needs.

GNH and Green School go hand in hand by accommodating both skills and values in the learner with its different dimensions and domains. Both the concepts, besides focusing on the holistic development of an individual, also seek to ensure the preservation of the traditional Bhutanese values and culture. In fact, the former Education Minister of Bhutan, Thakur S. Powdyel initiated the Green Schools program to support the noble program 'Educating for GNH' to secure and strengthen the vital interest of the nation and the well-being of people. The timely and far-sighted approach of the visionary kings of Bhutan pronounced in its GNH philosophy also emphasizes the importance of education wherein all the fundamental characteristics of the green school implicitly contain the core ideas of GNH to pave the way for the nobility of action. The Green School model in Bhutan considers the well-being and happiness of others too while teaching how to live in agreement with nature. This goal is achievable if the concept and the meanings of the eight cardinal elements of a Green School are understood by the education fraternity. Such clarity will guide them to make a significant difference in the lives of the children under their care. The stakeholders such as the Bhutanese education curriculum developers must consider the tools pertaining to different grades and levels containing the holistic values of the Green School model in order to harness the benefit of this inclusive model. The model and the concept continue to be a work in progress while inspiring other institutions around the world.

Conclusion

The aim of a Green School is to provide a system of holistic education that encompasses humanitarian values, which are the need of the hour. The idea transcends physical greenery by making students aware of the importance of protecting biodiversity and encouraging them to live in ways that support environmental harmony. Should schools commit to the Green School concept with enthusiasm, it would go a long way to enrich the quality of life for Bhutanese children by ensuring the curriculum addresses the nine domains of Gross National Happiness: psychological well-being, health, education, culture, time use, good governance, community vitality, ecological diversity, resilience, and living standards. This would indeed make their lives more meaningful. Ultimately, the combined effort of both concepts would go a long way in making an individual morally and mindfully happy. The Bhutanese education system should preserve and sustain the Green School model because it will equip children with problem-solving skills, making them role models equipped with interpersonal skills and critical and effective thinking. All stakeholders in education community members, parents, school employees, and students should be prompted to be more engaged with the values of the eight green elements, and its objectives for the efficient process of learning to ascertain the real meaning and purpose of education. T. S. Powdyel too makes a plea and expresses his desires through his book 'My Green School: An Outline' that all the schools and institutions across the country in Bhutan should inculcate and imbibe the values of a 'Green School' with the hope that the students would release the values to the organizations and the society they enter upon graduation. This approach will both honour

Bhutan's cultural identity and significantly contribute to the development of proficient and skilled human resources.

Abbreviations and operational definitions

Gross National Happiness (GNH): Gross National Happiness was propounded by the fourth king of Bhutan, His Majesty King Jigme Singye Wangchuk immediately after his enthronement as a king in 1972. It was conceived as the guiding philosophy of Bhutan's development as a unique nation. The theory proposes that, though materialistic development is important for a nation to thrive, the mental and the psychological stability of its people is not conditioned by materialistic expansion (Thinley, 2005).

Educating for Gross National Happiness (Educating for GNH): 'Educating for Gross National Happiness' is a nationwide reform initiative of the Bhutanese education system that was conceived in 2009 by the Ministry of Education which is hailed as an offshoot of Gross National Happiness. This reform initiative brought changes in the education curriculum with GNH-infused values and principles (Ministry of Education [MoE], 2011a).

Ministry of Education (MoE): The Ministry of Education is an agency under the Royal Government of Bhutan that looks after the education system in Bhutan. It plans and formulates policies and principles to enhance educational quality in line with the principles of Gross National Happiness.

Sherig Mandala: 'Sherig' is the Dzongkha (Bhutan's national language) translation of the word 'education'. Hornby (1989) describes a mandala as a geometric design that is round which is symbolic of spiritual attainment. The word originated from Sanskrit which means 'circle'. 'Sherig Mandala' is used as the graphic depiction on which the eight elements of green school are represented in an integrated manner (Powdyel, 2014).

Green School: 'Green school' is a learning model developed by the Ministry of Education in 2011 to support the educational reform program called Educating for Gross National Happiness (Powdyel, 2014). The concept of green school as a slogan, 'Green School for Green Bhutan' aimed to engage learners in a holistic kind of learning through the different elements of greenery.

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