Journal of Advances in Accounting, Economics, and Management, Volume 2, Number 1, 2024, *Page*: 40-54

Towards a Sustainable Nepal: Assessing the Triple Bottom Line Awareness Among Young Generations

Arjun Rai[1], Mandip Bhattarai[2]

[1]Tribhuvan University, Nepal
[2]Janta Multiple Campus, Nepal

*Arjun Rai
Email: arjun.rai@mahmc.tu.edu.np
Orcid: https://orcid.org/0000-0001-9578-6971

Received: 12-07-2024
Accepted: 19-08-2024
Published: 19-09-2024

Abstract: Youth play a crucial role in advocating for social issues. Advocacy for a specific issue requires a thorough understanding of the issue at hand. This study examined the youth's awareness towards sustainable development using the Triple Bottom Line framework. In this study, the opinions of the youth were collected to determine how organizations can contribute to sustainable development, specifically in the areas of Profit (Economic Dimension), People (Social Dimension), and Planet (Environmental Dimension). The study used a cross-sectional research design. The study involves a non-vulnerable population. The Data was collected from the students pursuing higher education in Nepal. We collected responses from 142 university students through a structured questionnaire. The data were analyzed using factor analysis, descriptive statistics, and independent sample t-tests, stratified by gender and educational qualifications. The study's findings indicated that youth showed the highest awareness in the social sustainability (People) dimension, followed by economic (Profit), and the least in environmental (Planet) sustainability. Likewise, the independent sample t-test results comparing mean differences across all dimensions of the Triple Bottom Line by gender showed insignificant differences in profit, people, and overall TBL dimensions. However, there was a significant mean difference in the level of concern about the planet or environment, with male students exhibiting higher awareness. The Study suggested statistically insignificant differences across all dimensions of the Triple Bottom Line and overall Triple Bottom Line due to differences in the educational qualifications of the students.

Keywords: Triple Bottom Line, sustainability, Profit pillar, planet pillar, people pillar

Introduction

Nepal is a landlocked country with lowland plains and some of the world's highest mountain peaks (Chaudhary et al., 2020). Nepal's distinct topography makes the country highly vulnerable to the impacts of climate change (Mainali & Pricope, 2017; Shrestha & Aryal, 2011). In recent years, Nepal has experienced climate-induced disasters (Heyojoo et al., 2017; Karki, 2024) like rising temperatures, irregular monsoon patterns, melting glaciers, floods, landslides, and droughts (Kapri, 2024). Climate-related environmental challenges have a remarkable negative impact on the livelihoods (Banu & Fazal, 2025), agriculture (Prajapati et al., 2024), biodiversity (Oliver & Morecroft, 2014), and water resources

(Kangalawe, 2017). Sustainable development is not only a policy goal but a pressing necessity of the time (Blowers, 1993; Quental et al., 2011). Youths can play an important role in achieving goals related to Sustainable Development (Borojević, et al., 2017) by driving innovation (Borojević et al., 2023) and advocating for social (Bastien & Holmarsdottir, 2017) and environmental justice (Kumar, 2023). At the same time, youths can shape sustainable policies through active participation in national discourse on sustainable development (Borojevic et al., 2023; Chang et al., 2022). The youth in Nepal can play an active role in helping the government achieve the Sustainable Development Goals by 2030 (Sapkota & Neupane, 2021). However, despite their (youths') demographic significance and economic importance (Odoh & Innocent, 2014) the voices of Nepalese youth are often lost in the silence. Furthermore, awareness and understanding of sustainability and sustainable development agendas are often fragmented (Van Kerkhoff & Lebel, 2006), and competent authorities, particularly local governments, frequently fail to incorporate these agendas into their policies (Gupta & Sigdel, 2024). Likewise, Nepal has limited integration of Triple Bottom Line concepts into formal education and youth development programs. Similarly, the existing literature on sustainability in Nepal primarily focuses on policy or environmental impacts, with limited empirical attention to how young people perceive and relate to the economic, environmental, and social pillars of sustainable development.

Therefore, assessing the youth's awareness towards the Triple Bottom Line is essential. How Nepalese youth conceptualise and prioritise the different dimensions of sustainability can provide insights for educators and policymakers to design targeted interventions that develop a sustainable mindset and behaviour among the youth. This study aims to fill the gap by comparing the level of TBL awareness among young people in Nepal, thereby contributing to a more inclusive and youth-driven path towards sustainable development.

1.1.Definition of TBL Pillars

The Triple Bottom Line framework integrates three key pillars viz., economic, social, and environmental to guide sustainable development (Nogueira et al., 2023). The economic pillar, also known as the Profit pillar, emphasises financial viability. The profit pillar aims to promote economic growth (Hammer & Pivo, 2017), job creation, and the efficient utilisation of resources (Tate & Bals, 2018), while ensuring long-term prosperity without compromising other dimensions (Machado et al., 2024). Profit pillar of sustainability involves responsible business practices, innovation, and equitable wealth distribution to support sustainable economies (Nogueira et al., 2022). The social pillar (people) is another dimension of sustainability, which focuses on human well-being, equity, and social justice (Rogers et al., 2012). The social pillar addresses issues related to education, health, gender equality, and cultural diversity (Holst, 2023). Van der Waldt (2024) asserts that the people dimension of the Triple Bottom Line seeks to foster an inclusive society. All individuals have equal access to opportunities and rights in inclusive societies (Llorens, 2012). Finally, the environmental pillar (planet dimension) emphasises ecological stewardship, minimising environmental degradation, reducing carbon footprints, and preserving natural resources

for future generations (Hariram et al., 2023; Ghimire, 2023). These three interdependent pillars require a balanced consideration to achieve sustainable development (Nogueira et al., 2023).

1.2.Role of Youth Awareness in the Economic Pillar.

Youth awareness of the economic pillar of the Triple Bottom Line (TBL) is crucial for promoting sustainable economic practices. Young people, as future entrepreneurs, organizational leaders, and consumers, can drive innovation and advocate for ethical business models that priorities long-term viability over short-term profits (Machado et al., 2024). Woods et al. (2023) suggest that youth engagement in sustainability programs can lead to economic solutions that align with the Sustainable Development Goals. For example, Ian et al. (2019) noted that Australian and Mauritian adolescents involved in Young Person's Plan for the Planet (YPPP) demonstrated increased awareness of resource efficiency, leading to projects that supported local economies while minimizing environmental impact. Sustainability awareness empowers young people to influence corporate practices through their consumer choices and advocacy, and promotes sustainable entrepreneurship (Machado et al., 2024). Thus, informed youth can drive economic systems that balance profitability with social and environmental responsibility (Feroze, 2024).

1.3.Role of Youth Awareness in the Social Pillar.

Youth awareness of the social pillar is pivotal for advancing social equity and community resilience. Education for Sustainable Development programs, such as those integrating SDG 4 (Quality Education), enhance youths' understanding of social issues like gender equality and cultural diversity (Holst, 2023). Similarly, youth participation in climate change education promotes global citizenship behaviour and encourages actions that foster peace and social justice (Yanniris, 2021). Similarly, by raising awareness through quality education, youth can challenge systemic inequalities (Jamatia, 2023) and promote Goal 5 (gender equality) and Goal 10, i.e. Reduced Inequalities of the Sustainable Development Goals (Bhandari, 2024). In a more cohesive society where youth lead community projects or advocacy campaigns, they strengthen social capital and contribute to sustainable development (Holst, 2023).

1.4.Role of Youth Awareness in the Environmental Pillar.

Shutaleva et al. (2021) assert that youth awareness of the environmental pillar is important for combating ecological problems and promoting sustainability. Climate change education programs have effectively increased youths' understanding of environmental issues (Monroe et al., 2019; Baldwin et al., 2023), such as carbon emissions and biodiversity loss (Schreiner et al., 2005; Velasco-Martínez et al., 2020; Monroe, 2019). Recent studies highlight the growing awareness of environmental sustainability among youths (Buzdugan & Nepotu, 2023), driven by increased access to digital media, education, and global climate activism (Kowasch et al., 2021). Research indicates that younger generations, particularly Gen Z and Millennials, exhibit stronger pro-environmental attitudes than older

demographics, often resulting in sustainable consumption behaviours, such as a preference for eco-friendly brands and reduced plastic use (Smith & Jones, 2022). However, the study by Pinho and Gomes (2024) and Ribeiro et al. (2024), indicated that Generation Z showed the least concern for the environment in the Portuguese context. Institutions and social media platforms play a crucial role in shaping youth perceptions, attitudes, and awareness of sustainability through sustainability-focused campaigns and the integration of sustainability literacy into curricula (Pabian & Pabian, 2023; AlKhudari et al., 2024). However, economic constraints, lack of infrastructure, and policy inertia may hinder the initiatives for fostering environmental awareness (Adebayo, 2025). The Environmental awareness of youths may translate into actions (Schusler & Krasny, 2010) such as tree planting (Kalungwizi et al., 2018) and waste reduction, which align with Sustainable Development Goals 13 - Climate Action, and 15, i.e., *Life on Land* (Raman et al., 2024; Huan & Zhu, 2023). An environmentally conscious youth can lead grassroots movements (Goldman et al., 2017), influence policy (Shutaleva et al., 2021; Jhanji & Sarin, 2018), adopt sustainable lifestyles, reduce ecological footprints and foster resilience against global environmental crises (Kumar, 2023).

Research Method

The objective and the importance of the study were explained to the students. Informed consent was obtained from the human subjects before collecting the data. The study involved the collection and analysis of general opinion-based data only. Therefore, the study does not include personally identifiable information, vulnerable populations or sensitive topics. The interpretation based on mean values is used, as suggested by Sullivan and Artino (2013) and Harpe (2015).

Research Design

This study used a cross-sectional research design. This study used a five-point Likert scale questionnaire to collect the data. The questionnaire contained 15 Likert items. However, one item (item number 10) was removed because of a cross-loading issue. For data analysis, an independent sample t-test was used to compare the mean difference in the students' awareness across all three dimensions of the Triple Bottom Line based on their gender and level of qualification.

Population, Sample, Sampling

The study population consists of university students from Nepal. Data was collected from 142 students pursuing higher education in different institutions in Nepal.

Result and Discussion

Table 1
Demographic Profile of the Students

Variables	Groups	N	Percent
Gender	Female	68	47.9
	Male	74	52.1
Qualification	Bachelor	108	76.1
	Master	34	23.9
	Total	142	100

Table 1 presents the demographic information of the survey students. A total of 142 students participated in the survey. Out of 142, 47.9 per cent were female, and the remaining students were male, accounting for 52.1 percent.

Table 2

Rotated Component Matrix[a]

Likert Statements	Component		
	PRO	PLO	PPO
1. Organizations should minimize their ecological footprint by reducing emissions and waste.		0.869	
2. Organizations should prioritize renewable energy sources in their operations.		0.824	
3. organizations should integrate environmental protection into their strategic planning.		0.878	
4. organizations should regularly assess and improve their environmental performance.		0.891	
5. Organizations should ensure fair labor practices and employee well-being.			0.812
6. Organizations should engage with local communities to support social development.			0.733
7. Organizations should promote diversity, equity, and inclusion in the workplace.			0.787
8. Organizations should take responsibility for their social impact on stakeholders.			0.617
11. organizations should adopt resource-efficient practices to reduce costs and improve long-term profitability.	0.733		
12. organizations should invest in sustainable innovation to gain a competitive advantage and enhance their financial performance.	0.846		
13. Organizations should view sustainability as a strategic tool for long-term economic growth.	0.79		
14. organizations should prioritise cost-effective solutions that align with both environmental and economic objectives.	0.76		

15. Organizations should implement sustainable practices to improve market positioning and profitability.	0.783

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. [a] =Rotation converged in 5 iterations.
Abbreviation: PRO = Profit Awareness, PLO = Planet Awareness, PPO = People Awareness.

Table 2 presents the factor analysis result. In this study, principal component analysis with rotation methods was used. The study employed Varimax with Kaiser normalisation, using five iterations. A total of fifteen Likert items were used in the study. However, factor analysis revealed a cross-loading case for item number 10, which was loaded in the profit and people dimensions of the Triple Bottom Line. Thus, item number ten was deleted from the factor analysis. Only 14 items revealed a robust factor loading. Factor analysis revealed three dimensions of the Triple Bottom Line based on the value of Eugen Value, more or equal to 1. Items 11 to 15 were clustered, and items 1 to 4 were grouped together. Similarly, items from 5 to 9 were placed under one factor. Considering the themes of the items under each factor, three dimensions of the triple bottom line were extracted. The result is presented in Table 2 above.

Table 3

Descriptive Statistics of the Constructs Used in the Study

Constructs	N	Mean	St. D.	CV	α	Items
PROFIT	142	16.84	4.93	29.28	0.905	4
PLANET	142	16.63	1.59	9.55	0.786	5
PEOPLE	142	18.51	4.03	21.79	0.875	5
TBL	142	48.08	7.95	16.54	0.868	14

Table 3 presents the descriptive statistics for the study's constructs. The constructs of the study include three pillars of the Triple Bottom Line, namely profit, planet, and people, as well as the aggregate Triple Bottom Line. All constructs were measured using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The results of the descriptive statistics indicate that students exhibited varied levels of awareness across the constructs. Awareness of the profit dimension was measured using four Likert items. The reliability analysis indicated robust internal consistency (α = .905). The mean score for the construct profit had a summated mean of 16.84 across 4 Likert items, resulting in an average item score of approximately 4.21 (16.84/4). This value leans towards the strongly agree category on the 1–5 Likert scale, suggesting that students strongly agree that organizations should be economically sustainable or generate sufficient profit.

In contrast, the awareness towards the planet (environmental dimension) had a summated mean of 16.63 out of five items with an average item score of 3.33 (16.63/5). This score falls within the neutral to moderate agreement range, indicating that students were less confident or more divided in their views on environmental sustainability. The internal consistency was acceptable (α = .786). Furthermore, the people (social dimension) construct

showed a higher average item score of 3.70 (mean = 18.51 across five items), indicating general agreement with statements about social responsibility and stakeholder well-being. Its internal consistency was also strong (α = 0.875), reaffirming the reliability of the construct.

Similarly, the overall TBL construct, which integrates the three pillars (Profit, Planet, and People), had a summated mean of 48.08 across 14 items. The average score is 3.43. This suggests a modest awareness towards Sustainable Development. The reliability analysis suggested a high reliability (α = 0.868). We interpreted the results based on the mean value of the summated scales, which aligns with the suggestions made by scholars like Sullivan and Artino (2013) and Harpe (2015). Similarly, internal consistency, measured by Cronbach's alpha, further supports the validity of these interpretations by indicating how well the items within each construct measure the same concept (Tavakol & Dennick, 2011). The variation in mean score per item across the constructs reflects students' relative emphasis on each sustainability pillar. The highest mean score on the profit pillar over other pillars suggests that profit considerations often receive greater attention than environmental or social dimensions in practice (Hahn et al., 2015; Księżak & Fischbach, 2017).

Table 4
Independent Sample t-test (Mean Difference Comparison by Gender) Group Statistics

Constructs	Gender	N	Mean	Std. D.	t	Df	p.	Decision
PROFIT	Female	68	16.66	4.24	-0.41	136	0.681	$H_0$1: Accepted
	Male	74	17.00	5.51				
PLANET	Female	68	16.35	1.24	-2.02	130	0.045	$H_0$2: Rejected
	Male	74	16.88	1.82				
PEOPLE	Female	68	18.66	3.74	0.42	140	0.677	$H_0$3: Accepted
	Male	74	18.38	4.31				
TBL	Female	68	47.78	6.74	-0.44	135	0.659	$H_0$4: Accepted
	Male	74	48.36	8.96				

Tested Hypotheses

1. $H_0$1: There is no significant difference in the mean profit awareness of youths based on their gender.
2. $H_0$2: There is no significant difference in the mean planet awareness of youths based on their gender.
3. $H_0$3: There is no significant difference in the people's awareness of youths based on their gender.
4. $H_0$4: There is no significant mean difference in the overall Triple Bottom Line awareness of youths based on gender differences.

Table 4 presents the results of an independent sample t-test at a 5% significance level. Four hypotheses were tested using an independent sample t-test. The test was conducted to examine how differences in gender result in differences in different pillars of the Triple Bottom Line and the overall Triple Bottom Line. For the *profit* (economic pillar) construct,

there was no statistically significant difference between female (M = 16.66, SD = 4.24) and male (M = 17.00, SD = 5.51) students, t(136) = -0.41, p>.05. Therefore, as the p-value is greater than .05, the null hypothesis ($H_0$1), which states that there is no difference in profit-related perceptions between genders, is accepted. Implying that both male and female students emphasise profit, irrespective of their gender differences.

Similarly, for the people construct (social pillar), the independent sample t-test suggested an insignificant difference due to gender differences. The mean score for females (M= 18.66, SD = 3.74) and males (M= 18.38, SD = 4.31) with conditions; t(140) = 0.42, p>.05. The statistical values accept the null hypothesis ($H_0$3), indicating that gender does not influence perceptions related to social sustainability aspects. Likewise, the overall Triple Bottom Line construct also revealed an insignificant difference between female (M = 47.78, SD = 6.74) and male (M = 48.36, SD = 8.96) students with the conditions; t(135) = -0.44, p>.05. Therefore, the null hypothesis ($H_0$4) is accepted, suggesting that overall perceptions of sustainability are consistent across genders.

However, a statistically significant difference was found in the *planet* construct (environmental pillar). Female students had a lower mean score (M = 16.35, SD = 1.24) than male students (M = 16.88, SD = 1.82). The mean difference was statistically significant (t(130) = -2.02, p < .05). Since the p-value is less than .05, the null hypothesis (H0) is rejected. This indicates that gender influences attitudes toward environmental sustainability. The male students showed slightly stronger agreement with environmental concerns than the female students. There are mixed findings regarding gender differences in environmental concern (MacDonald & Hara, 1994; Mohai, 2014). Some studies have found that men are more environmentally concerned than women (MacDonald & Hara, 1994). However, studies by Dunlap (1983) and Xiao and McCright (2015) found that women are more environmentally concerned than men. The findings of this study align with prior research, suggesting that gender differences can emerge in environmental dimensions (Zelezny et al., 2000; Xiao & McCright, 2015).

Table 5

Independent Sample t-Test (Mean Difference Comparison by Education Level) Group Statistics

Constructs	Qualification	N	Mean	Std. Deviation	t	Df	p	Decision
PROFIT	Bachelor	108	16.76	z5.00	0.74	140	0.736	$H_0$5: Accepted
	Master	34	17.09	4.75				
PLANET	Bachelor	108	16.51	1.43	-1.34	44	0.188	$H_0$6: Accepted
	Master	34	17.00	1.98				
PEOPLE	Bachelor	108	18.45	4.13	-0.32	140	0.752	$H_0$7: Accepted
	Master	34	18.71	3.76				
TBL	Bachelor	108	47.82	8.00	-0.69	140	0.489	$H_0$8: Accepted
	Master	34	48.91	7.88				

Tested Hypotheses;

1. $H_0$5: There is no significant mean difference in the profit awareness of youths based on differences in their educational qualification.

2. $H_0$6: There is no significant mean difference in the Planet awareness of youths based on differences in their educational qualification.
3. $H_0$7: There is no significant difference in youths' awareness of "people" based on their educational qualifications.
4. $H_0$8: There is no significant difference in youths' Triple Bottom Line awareness based on their educational qualifications.

Based on the students' educational qualifications, four hypotheses were tested to examine the difference in awareness across all three pillars of the Triple Bottom Line. An independent samples t-test was conducted at a 5% significance level for this analysis. The students' education was divided into two categories. One category consisted of students pursuing a bachelor's level, and the other consisted of students pursuing a master's level.

The test results are presented in Table 5. For the PROFIT construct, no statistically significant difference was found between the bachelor's group ($M = 16.76$, $SD = 5.00$) and the master's group ($M = 17.09$, $SD = 4.75$), $t(140) = 0.74$, $p>.05$. Thus, the null hypothesis ($H_0$5) is accepted, indicating that educational qualification does not significantly influence perceptions related to economic sustainability. Likewise, across all pillars of the Triple Bottom Line, the sustainability orientation did not differ due to differences in the educational level of the respondents (in all cases, $p > .5$). Generally, it is observed that respondents with higher qualifications tend to be more concerned about sustainability. An insignificant difference in sustainability orientation between bachelor's and master's level students can be attributed to several factors. *First,* if the majority of the curriculum in both bachelor's and master's has minimal differences in the subject areas covered, the students may have a similar orientation. Second, the impact of confounding variables such as prior knowledge and experience about sustainability, socio-economic status, and individuals' motivation for sustainability can neturalize the effect of educational level on their sustainability orientations.

Conclusion

Emphasis on Profit over Planet and People.

The study revealed profit as the most prominent pillar among the three pillars of the Triple Bottom Line. Their responses to the profit dimension are strongly inclined toward agreement. The results indicate that university students believe economic sustainability is important for organisational sustainability. This dominant emphasis on profit may be a reflection of academic programs that prioritizes the economic outcomes over social and environmental outcomes. In contrast, students showed relatively lower orientation toward the planet and people dimension. Their responses suggest a more neutral stance on ecological and environmental issues. A lack of emphasis on ecological and environmental issues may result from limited exposure to environmental issues, a lack of integration of ecological content in their coursework, or broader societal trends where environmental sustainability is often treated as a secondary concern. At the same time, the orientation of the students on sustainability differs from faculty to faculty. While management students may prioritize economic output over ecological environmental performance, environmental

studies students may prioritize ecological outcomes. This study collected data from management students in Nepal. Thus, further research is deemed necessary to include other faculties and study areas, presenting more generalizable outcomes. Moreover, the students' orientation towards overall Triple Bottom Line remains moderate.

Gender and Triple Bottom Line

The gender-based analysis of all the dimensions of the Triple Bottom Line indicated minimal differences in students' sustainability orientations. Both male and female students demonstrated an insignificant difference in their sustainable development orientations, which implies that gender may not be a determining factor in shaping general sustainability attitudes. However, there was a significant difference in the environmental (planet) dimension. The male students reported higher mean scores than the female students. It may suggest a gap in how environmental issues are presented or internalized among genders in this academic context.

Level of Education and Triple Bottom Line

The differences in students' orientation across all dimensions of the Triple Bottom Line between bachelor's and master's levels were insignificant. This outcome suggests that advancing from undergraduate to postgraduate education does not necessarily lead to an increase in sustainability awareness. Integrating sustainability literacy in academic programs and evaluating the effectiveness of current curricula (if any) will be beneficial.

1.5.Policy Implications of the Study

1.5.1. Overemphasis on economic sustainability (profit dimension) ensures economic viability. However, organizations cannot endure long if they are not environmentally and socially sustainable. Therefore, it is time for policymakers to integrate sustainable development literacy across all disciplines, enabling youth to contribute to achieving the Sustainable Development Goals by 2030 through their engagement in various organizations.

1.5.2. Educational institutions should avoid one-size-fits-all approaches. Rather, it will be beneficial to design gender-responsive environmental education strategies that engage all students meaningfully.

1.5.3. To address the insignificant difference in sustainability orientation across educational levels, policymakers (the Universities of Nepal) should integrate sustainability literacy into academic programs and differentiate the depth of sustainability literacy vertically (by educational level).

References

Adebayo, W. G. (2025). Resilience in the face of ecological challenges: Strategies for integrating environmental considerations into social policy planning in Africa. *Sustainable Development*, *33*(1), 203-220.

AlKhudari, M. N., Abduljabbar, O. J., Al Manaseer, A. M., & AL-Omari, M. S. (2024). The Role of Social Media in Shaping Public Opinion Among Jordanian University

Students. *Journal of Infrastructure, Policy and Development*, *8*(8), 5489. https://doi.org/10.24294/jipd.v8i8.5489

Baldwin, C., Pickering, G., & Dale, G. (2023). Knowledge and self-efficacy of youth to take action on climate change. *Environmental Education Research*, *29*(11), 1597-1616.

Bastien, S., & Holmarsdottir, H. B. (2017). The sustainable development goals and the role of youth-driven innovation for social change. *Youth as architects of social change: Global efforts to advance youth-driven innovation*, 3-22.

Bhandari, M. P. (2024). What is next for the Sustainable Development Goals, and what are the challenges concerning SDG 10 reduced inequalities? *Sustainable Earth Reviews*, *7*(1), 23.

Blowers, A. (1993). Environmental policy: The quest for sustainable development. *Urban studies*, *30*(4-5), 775-796. https://doi.org/10.1080/00420989320081911

Borojević, T., Maletič, M., Petrović, N., Radaković, J. A., Senegačnik, M., & Maletič, D. (2017). Youth attitudes towards goals of a new sustainable development agenda. *Problemy Ekorozwoju*, *12*(2), 161-172.

Borojevic, T., Petrović, N., Radaković, J. A., Glomazić, H., Radojičić, M., Milenković, N., ... & Maletič, M. (2023). Youth participation for sustainable value creation: the role and prioritization of SDGs. *Sustainability*, *15*(23), 16456. https://doi.org/10.3390/su152316456

Borojević, T., Petrović, N., Radaković, J. A., Glomazić, H., Radojičić, M., Milenković, N., ... & Maletič, M. (2023). Youth participation for sustainable value creation: the role and prioritization of SDGs. *Sustainability*, *15*(23), 16456.

Buzdugan, A., & Nepotu, L. (2023). Youth and sustainable consumption: understanding awareness and adoption trends. *EcoSoEn*, (3-4), 39-50.

Chang, E., Sjöberg, S., Turunen, P., & Rambaree, K. (2022). Youth empowerment for sustainable development: Exploring ecosocial work discourses. *Sustainability*, *14*(6), 3426.

Chaudhary, S., Wang, Y., Dixit, A. M., Khanal, N. R., Xu, P., Fu, B., ... & Li, M. (2020). A synopsis of farmland abandonment and its driving factors in Nepal. *Land*, *9*(3), 84. https://doi.org/10.3390/land9030084

Dunlap, R. E. (1983). Male-female differences in concern for environmental quality. *International journal of Women's Studies*, *6*(4), 291-301.

Feroze, K. (2024). Sustainable Development: Balancing Economic Growth with Environmental and Social Responsibility. *Policy Journal of Social Science Review*, *2*(1), 29-37. https://doi.org/10.63075/pjssr.v2i1.14

Ghimire, B. J. (2023). Three pillars of sustainable development: Challenges versus achievements. *Journey for Sustainable Development and Peace Journal*, *1*(02), 132-146. https://doi.org/10.3126/jsdpj.v1i02.58266

Goldman, D., Pe'er, S., & Yavetz, B. (2017). Environmental literacy of youth movement members–is environmentalism a component of their social activism?. *Environmental Education Research*, *23*(4), 486-514.

Gupta, A. K., & Sigdel, T. S. (2024). Integrating Sustainable Development Goals in local plans: Unlocking practices and challenges of local governments in Nepal. *Heliyon*, *10*(20). https://doi.org/10.1016/j.heliyon.2024.e39615

Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Journal of business ethics*, *127*, 297-316. https://doi.org/10.1007/s10551-014-2047-5

Hariram, N. P., Mekha, K. B., Suganthan, V., & Sudhakar, K. (2023). Sustainalism: An integrated socio-economic-environmental model to address sustainable development and sustainability. *Sustainability*, *15*(13), 10682. https://doi.org/10.3390/su151310682

Harpe, S. E. (2015). How to analyze Likert and other rating scale data. *Currents in pharmacy teaching and learning*, *7*(6), 836-850. https://doi.org/10.1016/j.cptl.2015.08.001

Heyojoo, B. P., Yadav, N. K., & Subedi, R. (2017). Assessments of climate change indicators, climate-induced disasters, and community adaptation strategies: a case from high mountain of Nepal. *Land Cover change and its eco-environmental responses in Nepal*, 203-221.

Holst, J. (2023). Towards coherence on sustainability in education: a systematic review of Whole Institution Approaches. *Sustainability Science*, *18*(2), 1015-1030. https://doi.org/10.1007/s11625-022-01226-8

Huan, Y., & Zhu, X. (2023). Interactions among sustainable development goal 15 (life on land) and other sustainable development goals: Knowledge for identifying global conservation actions. *Sustainable Development*, *31*(1), 321-333.

Ian, C., Suzy, U., David, G., Graham, D., Bobby, C., Aman, M., ... & James, G. I. (2019). Education for sustainable development: A study in adolescent perception changes towards sustainability following a strategic planning-based intervention The young persons' plan for the planet program. *Sustainability*, *11*(20), 5817. https://doi.org/10.3390/su11205817

Jamatia, P. L. (2023). The role of youth in combating social inequality: Empowering the next generation. *International Journal of Social Science Educational Economics Agriculture Research and Technology (IJSET)*, *2*(8), 229-238.

Jhanji, H., & Sarin, V. (2018). Relationship between environmental consciousness and green purchase behaviour among youth. *International Journal of Green Economics*, *12*(3-4), 171-181.

Kalungwizi, V. J., Gjøtterud, S. M., Krogh, E., Mattee, A., & Ahmad, A. K. (2018). Participative planning of environmental education activities: Experiences from tree planting project at a teacher training college in Tanzania. *Educational Action Research*, *26*(3), 403-419.

Kangalawe, R. Y. (2017). Climate change impacts on water resource management and community livelihoods in the southern highlands of Tanzania. Climate and Development, 9(3), 191-201. https://doi.org/10.1080/17565529.2016.1139487

Kapri, C. S. (2024). Climate Change-Induced Disaster and Its Impact on the National Security of Nepal. *Unity Journal*, *5*(1), 275-290. https://doi.org/10.3126/unityj.v5i1.63181

Karki, B. (2024). The threats of climate change in Nepal: Natural catastrophes and global conflict frontiers. *Unity Journal*, *5*(1), 175-190.

Kowasch, M., Cruz, J. P., Reis, P., Gericke, N., & Kicker, K. (2021). Climate youth activism initiatives: Motivations and aims, and the potential to integrate climate activism into ESD and transformative learning. *Sustainability*, *13*(21), 11581. https://doi.org/10.3390/su132111581

Księżak, P., & Fischbach, B. (2017). Triple bottom line: The pillars of CSR. *Journal of corporate responsibility and leadership*, *4*(3), 95-110. http://dx.doi.org/10.12775/JCRL.2017.018

Kumar, A. (2023). Promoting youth involvement in environmental sustainability for a sustainable Future. *Edumania-An International Multidisciplinary Journal*, *1*(03), 261-278. https://doi.org/10.59231/edumania/9012

Llorens, J. C. (2012). Human rights and the inclusive society. In *Globalization and Human Rights: Challenges and Answers from a European Perspective* (pp. 51-72). https://doi.org/10.1007/978-94-007-4020-4_3

MacDonald, W. L., & Hara, N. (1994). Gender differences in environmental concern among college students. *Sex Roles*, *31*, 369-374. https://doi.org/10.1007/BF01544595

Machado, E. A., Scavarda, L. F., Caiado, R. G. G., & Santos, R. S. (2024). Industry 4.0 and sustainability integration in the supply chains of micro, small, and medium enterprises through people, process, and technology within the triple bottom line perspective. *Sustainability*, *16*(3), 1141. https://doi.org/10.3390/su16031141

Mainali, J., & Pricope, N. G. (2017). High-resolution spatial assessment of population vulnerability to climate change in Nepal. *Applied Geography*, *82*, 66-82.

Mohai, P. (2014). Men, women, and the environment: An examination of the gender gap in environmental concern and activism. In *Women working in the environment* (pp. 215-239). Routledge.

Monroe, M. C., Plate, R. R., Oxarart, A., Bowers, A., & Chaves, W. A. (2019). Identifying effective climate change education strategies: A systematic review of the research. *Environmental Education Research*, *25*(6), 791-812. https://doi.org/10.1080/13504622.2017.1360842

Nogueira, E., Gomes, S., & Lopes, J. M. (2022). The key to sustainable economic development: A triple bottom line approach. *Resources*, *11*(5), 46. https://doi.org/10.3390/resources11050046

Nogueira, E., Gomes, S., & Lopes, J. M. (2023). Triple bottom line, sustainability, and economic development: What binds them together? A bibliometric approach. *Sustainability*, *15*(8), 6706. https://doi.org/10.3390/su15086706

Odoh, E., & Innocent, E. O. (2014). Role of the youths in national development. *Singaporean Journal of Business Economics, and Management Studies*, *3*(2), 164-181.

Oliver, T. H., & Morecroft, M. D. (2014). Interactions between climate change and land use change on biodiversity: attribution problems, risks, and opportunities. *Wiley Interdisciplinary Reviews: Climate Change*, *5*(3), 317-335.

Pabian, A., & Pabian, B. (2023). Role of social Media in Managing Knowledge of the young generation in the sustainability area. *Sustainability*, *15*(7), 6008. https://doi.org/10.3390/su15076008

Pinho, M., & Gomes, S. (2024). Environmental sustainability from a generational lens A study comparing generation X, Y, and Z ecological commitment. *Business and Society Review*, *129*(3), 349-372. https://doi.org/10.1111/basr.12364

Prajapati, H. A., Yadav, K., Hanamasagar, Y., Kumar, M. B., Khan, T., Belagalla, N., ... & Malathi, G. (2024). Impact of climate change on global agriculture: Challenges and adaptation. *Int. J. Environ. Clim. Change*, *14*(4), 372-379.

Quental, N., Lourenço, J. M., & Da Silva, F. N. (2011). Sustainable development policy: goals, targets and political cycles. *Sustainable Development*, *19*(1), 15-29.

Raman, R., Das, P., Mandal, S., Vijayan, V., AR, A., & Nedungadi, P. (2024). The impact of Gen Z's pro-environmental behavior on sustainable development goals through tree planting. *Sustainable Futures*, *8*, 100251. https://doi.org/10.1016/j.sftr.2024.100251

Ribeiro, M. I., Lopes, I. M., & Fernandes, A. J. (2024, July). Environmental Awareness and Sustainable Consumption Among Portuguese University Students from Generation Z. In *International Conference in Information Technology and Education* (pp. 311-323). Cham: Springer Nature Switzerland.

Rogers, D. S., Duraiappah, A. K., Antons, D. C., Munoz, P., Bai, X., Fragkias, M., & Gutscher, H. (2012). A vision for human well-being: transition to social sustainability. *Current Opinion in Environmental Sustainability*, *4*(1), 61-73. https://doi.org/10.1016/j.cosust.2012.01.013

Sapkota, J. B., & Neupane, P. (2021). Sport for development and peace (SDP) organizations and the sustainable development goals (SDGs) of Nepal. *Global Social Welfare*, *8*(1), 47-58.

Schreiner, C., Henriksen, E. K., & Kirkeby Hansen, P. J. (2005). Climate education: Empowering today's youth to meet tomorrow's challenges. *41*. 3-50. https://doi.org/10.1080/03057260508560213

Schusler, T. M., & Krasny, M. E. (2010). Environmental action as context for youth development. *The Journal of Environmental Education*, *41*(4), 208-223.

Shrestha, A. B., & Aryal, R. (2011). Climate change in Nepal and its impact on Himalayan glaciers. *Regional environmental change*, *11*, 65-77.

Shutaleva, A., Martyushev, N., Nikonova, Z., Savchenko, I., Abramova, S., Lubimova, V., & Novgorodtseva, A. (2021). Environmental behavior of youth and sustainable development. *Sustainability*, *14*(1), 250. https://doi.org/10.3390/su14010250

Sullivan, G. M., & Artino Jr, A. R. (2013). Analyzing and interpreting data from Likert-type scales. *Journal of graduate medical education*, *5*(4), 541-542. https://doi.org/10.4300/JGME-5-4-18

Tate, W. L., & Bals, L. (2018). Achieving shared triple bottom line (TBL) value creation: toward a social resource-based view (SRBV) of the firm. *Journal of business ethics*, *152*, 803-826.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, *2*, 53. https://doi.org/10.5116/ijme.4dfb.8dfd

Van der Waldt, G. (2024). Towards a Conceptual Framework for the Social Dimensions of Sustainable Development. *African Journal of Governance and Development*, *13*(2), 113-134. https://doi.org/10.36369/2616-9045/2024/v13i2a6

Van Kerkhoff, L., & Lebel, L. (2006). Linking knowledge and action for sustainable development. *Annu. Rev. Environ. Resour.*, *31*(1), 445-477.

Velasco-Martínez, L. C., Martín-Jaime, J. J., Estrada-Vidal, L. I., & Tójar-Hurtado, J. C. (2020). Environmental education to change the consumption model and curb climate change. *Sustainability*, *12*(18), 7475. https://doi.org/10.3390/su12187475

Woods, P., Gapp, R., Fisher, R., & King, M. (2023). Education for sustainable development: A study in adolescent perception changes towards sustainability following a strategic planning-based intervention. Sustainability, 15(11), 8636. https://doi.org/10.3390/su15118636

Xiao, C., & McCright, A. M. (2015). Gender differences in environmental concern: Revisiting the institutional trust hypothesis in the USA. *Environment and Behavior*, *47*(1), 17-37. https://doi.org/10.1177/0013916513491571

Yanniris, C. (2021). Education for sustainability, peace, and global citizenship: An integrative approach. *Education Sciences*, *11*(8), 430. https://doi.org/10.3390/educsci11080430

Zelezny, L. C., Chua, P. P., & Aldrich, C. (2000). New ways of thinking about environmentalism: Elaborating on gender differences in environmentalism. *Journal of Social issues*, *56*(3), 443-457. https://doi.org/10.1111/0022-4537.00177