



ORIGINAL PAPER

EU Policies on Learning Environmental Sustainability and Climate Change: What Social Implications for Human and Organizational Development and Resilience?

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Abstract:

This article outlines the recent developments in European Union (EU) legislation on learning environmental sustainability (LES) since the 2000s. The main findings focus on the legal provisions of the: (i) European Commission (EC) Staff Working Document SWD/2022/3 final aimed to outline the key topics of LES; (ii) the Regulation (EU) 2021/1119 on climate change (CC) and climate neutrality (CN); (iii) the Regulation (EU) 2021/783 providing the legal framework for the LIFE programme and (iv) the Regulation (EU) 2018/1999 on EU governance in the sector of energy and climate action (CA). Therefore, the study reviews the action areas and the strategic decision making and evaluates seven mechanisms and policy responses, namely: (a) green transition (GT) and CC; (b) education; (c) training programmes; (d) EU governance and preparedness actions to sustainability; (e) approaches to key competencies; (f) COVID-19 challenges and societal and institutional responses to public health crisis (PHC); (g) key skills for GT. Thus, our findings show how the legal provisions for LES, CC and PHC can develop collaborative governance at the EU level. Moreover, the research considers three approaches for GT within the 2016 Skills Agenda (SA) namely: (i) *first*, the complex approach to “community engagement”; (ii) *second*, the specific aim of learning and involvement; (iii) *third*, the development of additional requirements regarding human development (HD) and organizational development (OD). In conclusion, these developments consider new approaches to GT and LES giving a complex overview of the HD and OD.

Keywords: *EU; human development; learning environmental sustainability; organizational development; climate change.*

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Introduction

Over the last decade, the regulation of environmental sustainability (ES) and climate change (CC) has become a fundamental area of EU policy and resilience. This research addresses the social implications (SI) for human development (HD) and organizational development (OD) for extending the understanding of the European Union (EU) legislation and implementation. As shown in recent literature, the concept of “learning environmental sustainability” (LES) approaches new advances to (i) policy and “education sustainability” (Wals, Benavot, 2017); (ii) strategy and legitimacy of ES (Walsh, Dodds, 2017); (iii) ES and education using the approach to “life cycle assessment” (LCA) (Weber, Strobel, Dyehouse, Harris, David, Fang, Hua, 2014). Moreover, the literature also shows theoretical insights from three perspectives: economic policies, political context and social impact (Padilla, 2001).

Theoretical development of LES

In 2021, the study of Sathasivam *et al.* points out the analytical framework of ES enriching the conceptual perspectives of the concept and the “organisational culture” (Sathasivam, Abu Bakar, Che Hashim, 2021). However, other recent studies use the “leadership and climate change” linkage as the theoretical basis highlighting the impact of ES and the social role of “sustainability education” (Halliwell, Whipple, Hassell, Bowser, Husic, Brown, 2020). Further, the approach to the “citizen science” perspective extends the research to new topics namely: CC, “leadership skills” and “demographic representation” (Halliwell, Whipple, Hassell, Bowser, Husic, Brown, 2020), ES and management practices (De Giacomo, Bleischwitz, 2020), the social framework for ES (DuBois, Dubois, 2012).

Moreover, other insights argue the social implications of the analysis of the “critical environmental thinking” and pedagogical tools (Kost, Peabody, 2021). In this direction, Piccarozzi finds and focuses on the connection between new technological advances, “social innovation” and sustainability (Piccarozzi, 2017). *First*, Piccarozzi analyzes the functions of the “technology entrepreneurship” and “entrepreneurial ecosystems” (Piccarozzi, 2017). *Second*, the research regards “social innovation” and ES as linking “social sustainability”, the social engagement of citizens (Piccarozzi, 2017) and consumer behaviour (Nguyen, Johnson, 2020). *Third*, the study enriches the conceptual perspectives of ES by presenting related activities and public resources (Piccarozzi, 2017). Other studies analyse the problem-solving taken by the EU governance in the field of HD and OD by exploring: (i) human health and ES (Patrick, Kingsley, 2016); (ii) consent, self-organization and the ethical approaches in interdisciplinary areas pointing to HD and health issues (Olimid, Olimid, Chen, 2018; Olimid, Olimid, 2018; Olimid, Olimid, 2020).

Drawing from Akhtar *et al.*, ES can be explained by using the three crucial attributes: (a) organizational framework; (b) organizational policies and practices and (c) “management tangible competencies” (Akhtar, Khan, Frynas, Tse, Rao-Nicholson, 2018). In the need for financial performance, Danso *et al.* identify an adaptive system for “environmental sustainability orientation” (ESO) providing a framework for ESO-strategies-performance linkages (Danso, Adomako, Amankwah-Amoah, Owusu-Agyei, Konadu, 2019).

Other studies explore new assessments that draw on (i) social challenges and ES (Elliot, 2013); (ii) quality requirements for ES (García-Dastugue, Eroglu, 2019); (iii) HD

and ES (Jin, High, 2004); (iv) social behaviour, technology and ES (Kashyap, 2021); (v) local partnerships and local ES (Kythreotis, 2010); (vi) “corporate governance” and LES (Ortiz-de-Mandojana, Aguilera-Caracuel, Morales-Raya, 2016); (vii) UN Millenium Goals and ES (Sengupta, Mukherjee, Sikdar, 2015). In this direction, Balasubramanian, Shukla, Mangla, and Chanchaichujit expose the concepts of “commitment”, “implication” and “participation” linking new approaches to HD and OD (Balasubramanian, Shukla, Mangla, Chanchaichujit, 2021). Additionally, two crucial aspects approach the green energy-ES nexus, namely: (a) platforms for development; (b) applications for ES and environmental resources and protection (Haribabu, 2021).

Methodology

The study poses the following research questions: (i) To what extent is LES and CC associated with OD and HD? (ii) What are the social implications considering the latest legislative developments? (iii) How the “social innovation” and “social sustainability” address LES and CC? Moreover, the research methodology uses the logical framework approach (LFA) by assessing key features of LES namely: objective(s), indicator(s), data source and assumption. To address the research questions, we design on environmental sustainability theory and practice by focusing on LES to provide: (a) an analytical overview of LES and CC and (b) an institutional framework of policy-governance as a mechanism of engaging and monitoring in a European context that focuses the social implications for HD and OD. Moreover, we build our analysis on the previous literature findings to propose a research framework based on ES with two main research themes emerging the social implications of HD, OD, and resilience [Regulation (EU) 2021/1119; Regulation (EU) 2021/783; Regulation (EU) 2018/1999].

By conceptualizing the topics of LES and CC, we thus illustrate how the actions areas and EU policies and strategic decisions are provided. Therefore, this study contributes to research and analyze the EU legislation by providing an overview of the EU legal documents: (a) European Commission (EC) Staff Working Document SWD/2022/3 final aimed by proposing a research framework that progressively expands from a conceptual and analytical focus to a macro-level in which the LES approaches to outline the key topics of LES; (b) the Regulation (EU) 2021/1119 on CC and climate neutrality (CN) [Regulation (EU) 2021/1119]; (c) the Regulation (EU) 2021/783 on LIFE programme [Regulation (EU) 2021/783]; (d) the Regulation (EU) 2018/1999 on energy and climate action (CA) [Regulation (EU) 2018/1999]. The EUR-lex database provides the selection of the research for the provisions of ES and CC. The four documents are collected using the refine search of the year of publication and document type. In particular, we employ legal and institutional analysis while our main focus is LES and CC.

Human system and resilience planning

The hypothesis developed in this study is that a specific approach to LES and CC facilitates and provides new advances in HD and OD. Therefore, this section explores the definition of the main topics and indicators of the Regulation (EU) 2018/1999 in advancing a legal and institutional analysis of the LES and CC in EU recent legislation, here including “policies and measures” (P&M) by focusing all tools and objectives and approaching the MS climate planning [Article 2(1), Regulation (EU) 2018/1999].

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Therefore, through the legal analysis of the EU legislation, we theorize and evaluate how HD and OD are highlighted in connection with the “human system” (HS) and resilience approach and planning. One consequence of these approaches is a broader multi-dimensional analysis of the effects of LES and CC considering also: (i) “climate-neutrality”, EU progresses and Member States (MS) actions [Article 2, Article 6 and Article 7, Regulation (EU) 2021/1119]; (ii) “climate plans” and strategies [Chapter 2 and Chapter 3, Regulation (EU) 2018/1999]; (iii) LES and education, “informal learning” and “non-formal learning” [Chapter 1, Chapter 2 and Chapter 3, SWD/2022/3 final]. Overall, the study evaluates the indicators and effects of the LES, which also acknowledges the area of human rights and human resources [Recital (45), Article 2(3) Regulation (EU) 2018/1999]; HD and human activity [Chapter 3, SWD/2022/3 final]; human dignity [Chapter 3, SWD/2022/3 final]; human health [Chapter 4, SWD/2022/3 final].

Nevertheless, the analysis of Article 2 of the Regulation (EU) 2018/1999 reflects a broader multi-definition approach to the: (a) implementation, adoption and planning of P&M; (b) two types of “projections” and “projections without measures” [Article 2(7)(8), Regulation (EU) 2018/1999]; (c) conceptual linkages to “indicators” and “key indicators” requiring further approaches to better monitor and evaluate the implementation [Article 2(13)(14), Regulation (EU) 2018/1999]; (d) highlighting the legal foundations of “quality control” and “quality assurance” [Article 2(16)(17), Regulation (EU) 2018/1999]; (e) exploring the framework of “early efforts” in the context of regional collaboration [Article 2(20)(21), Regulation (EU) 2018/1999].

Moreover, this research reveals empirical evidence to the fundamental role of the HD approaching key topics related to: (i) “human rights” and “gender equality” [Recital (45), Regulation (EU) 2018/1999]; (ii) “human resources” [Article 2(3) Regulation (EU) 2018/1999]; (iii) “human development” [Chapter 3, SWD/2022/3 final]; (iv) OD, “professional development” [Chapter 1, SWD/2022/3 final]; “policy development” approaching LES [Chapter 1, SWD/2022/3 final]; (v) “human health” [Recital (4), Recital (19), Recital (20), Regulation (EU) 2021/783]; (vi) organizational support and social cohesion [Recital (4), Regulation (EU) 2021/783]; (vii) sustainable development (SD) and CC [Recital (15), Recital (23), Recital (29), Regulation (EU) 2021/783].

Governance and civic engagement for LES

Of particular interest to our study are the EU provisions of LES, education and learning within the SWD/2022/3 final. Nevertheless, the SWD/2022/3 final points to resilience effects and investments in GT whereby sustainable policies and policies design a pivotal approach to vocational education and training (VET). This may be influenced by the mechanisms and processes requiring an adaptive framework concerning SD, GT, innovation and environmental protection (EP) and social protection. The ideas of “civic engagement”, “community engagement”, “active engagement”, “solidarity” and “leadership” give an extensive background across the relationship between EU governance and resilience. Moreover, the SWD/2022/3 final provides an overview of the complex issues that arise in the climate crisis [Chapter 1, SWD/2022/3 final].

To fully understand the linkages between LES and CC, the SWD/2022/3 final argues that learning for GT enhances three crucial concepts: (1) CC and education; (2) CC and biodiversity; (3) CC and SD. It is also important to note that these concepts draw

on EP from multiple scales: (a) sustainable practices and policies; (b) supportive framework for partnership in learning environments (LEs); (c) responsibility and active citizens engagement; (d) youth commitment and participation; (e) sustainability values and principles; (f) LEs and resilience practices. The other central topic of the LES and CC approach is how LES relates to leadership and institutional governance. How “local governance competence” operates is also a key aspect of the implementation of the EU curricula. As Table 2 of the SWD/2022/3 final shows, the ES key approaches in the MS provide a useful comparative analysis of the resources and policies using a multi-scale analysis at the national level [Table 2, Chapter 2, SWD/2022/3 final]. Therefore, the SWD/2022/3 final suggests here the strong need for policies, tools and strategies aimed to link education to LS.

Institutional networks for LES: HD & OD

Reported in the linkages between LES and CC, the same document exposes the representations of the institutional networks and organizational support. Furthermore, the document next identifies and explores the “institutional level” (IL) covering the sustainability practices and activities. The IL is explored by taking into account the following question: How do specific programmes for education enhance the development of the sustainability approach? Regarding this new field of sustainability, the SWD/2022/3 final presents the conceptualization of the “whole-institution approach” (WIA) as an adaptive strategy for LES. The WIA enhance HD and OD by sharing the co-management of (i) “planning and governance” and (ii) “staff participation” [Chapter 2, SWD/2022/3 final]. However, three factors are focusing on the operationalization of the concept of WIA, namely: (a) prioritisation of policies; (b) access policy to resources; (c) local governance and policies. Indeed, the operationalization of WIA suggests that collaboration and cooperation are linked to community engagement for LES in the context of “participatory and collaborative learning partnerships” (PCLPs) [Chapter 2, SWD/2022/3 final]. The role of PCLPs in supporting “trust-building” designs a pivotal of the OD aimed to achieve an integrative solution for education management. Therefore, the coordination, monitoring and evaluation phase (M&E) of the ES provides a comprehensive and advanced framework for the OD that includes: local organisations in the field of environment, companies and other institutions involved in ES. Furthermore, the M&E standards focus merely on the complex structure of the multilevel governance of the local and regional organisations, education institutions, public institutions and NGOs. Moreover, the SWD/2022/3 final focuses on explaining what is the role of HD and OD for LES by reflecting the analysis of (i) the effects of one scale cycle (e.g. “formal education”) [Chapter 2, SWD/2022/3 final] and (ii) the consequences of a cross-scale cycle (e.g. “non-formal education” and ES) [Chapter 3, SWD/2022/3 final].

Based on the analysis of the institutional network and support for LES, the SWD/2022/3 final reflects also two types of particularized approaches to (a) data, information and initiatives for environment education (EE) and (b) competencies for ES. Moreover, the SWD/2022/3 final highlights the importance of the “interdisciplinary competence” for the educational systems aimed to integrate two sustainable designs: quality indicators and curricula topics. The analysis suggests that sustainability competencies (SC) reflect both adaption and development of skills and innovative pedagogical tools and resources. In this context, SC also builds on descriptors proposing

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principles of respect and equity concerning the “resilient ecosystems” and social environment [Table 1, Chapter 4, SWD/2022/3 final].

Conclusions

The article concludes that the approaches to HD and OD offer a complex overview of the linkage to LES and CC. Accordingly, the research provides the exploration of three key concepts: environment education, active engagement and resilience. Finally, this study explored the fundamental role of LSE, especially in the context of local and regional governance. The research also addressed the interlinkages between the “whole-institution approach” (WIA) and LES. Relevant approaches to LSE and institutional support were associated to highlight the EU policies namely: “resilient ecosystems” and “interdisciplinary competencies”.

Authors' Contributions:

The authors contributed equally to this work.

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