

Article

The Reception of Education for Sustainable Development (ESD) in China: A Historical Review

Ronghui (Kevin) Zhou *  and Nick Lee

Department of Education Studies, University of Warwick, Coventry CV4 7AL, UK; n.m.lee@warwick.ac.uk

* Correspondence: r.zhou.6@warwick.ac.uk

Abstract: This article reveals the changes that have taken place in the under-researched Education for Sustainable Development (ESD) discourse in China over the past three decades and presents new findings. The authors conducted discourse analysis to examine the changes of ESD discourse in official policy documents and compared them with the concept of ESD as it appears in the UNESCO framework. Findings suggest that ESD in China has been redefined by domestic discourse and interests. The concept of ‘Ecological Civilisation’ replaces the identity and function of ESD as it appears in China’s education policies, while ESD primarily targets the environmental sector. This redefining of ESD weakens the interconnection between ESD and sustainable development (SD) that exists within the UNESCO framework and presents an unstable approach to ESD in China. This research contributes to ESD development in China and updates its potential education challenges considering China’s 2030 Agenda.

Keywords: education for sustainable development; China; education policy; sustainable development



Citation: Zhou, R.; Lee, N. The Reception of Education for Sustainable Development (ESD) in China: A Historical Review. *Sustainability* **2022**, *14*, 4333. <https://doi.org/10.3390/su14074333>

Academic Editors: Yuzhuo Cai and Lili-Ann Wolff

Received: 25 February 2022

Accepted: 4 April 2022

Published: 6 April 2022

Publisher’s Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Since the 1980s, the results of excessive environmental degradation have raised global concern. The term ‘sustainability’, which originates from the forestry industry in Germany, has spread internationally and has encouraged reconsideration of modern development patterns [1]. In 1987, the birth of the Brundtland Report, ‘Our Common Future’, reinforced the influences of Sustainable Development (SD) on the global agenda and identified it as the most important and urgent issue of the 21st century [2]. In 1992, the Rio Earth Summit further established SD and identified Education for Sustainable Development (ESD) as a key promoter for fostering SD. In the years following its creation, including the 2002 establishment of the Decade of Education for Sustainable Development (DESD), ESD has become central to the international agenda for SD. In 2015, ESD was identified as a method to accomplish the 17 Sustainable Development Goals (SDGs) established by the United Nations General Assembly.

The concept of SD entered China in the early 1990s following the publication of China’s *Agenda 21*, a document that addresses ‘the consensus view of sustainable development as economic and social development without prejudice to the resource base and environmental quality for future generations’ and has had a lasting and wide-ranging impact on Chinese governmental actions [3] (p. 100). ESD-related projects followed soon after. For instance, the UNESCO sponsored the ESD project, ‘Educating for a Sustainable Future: Environment, Population and Sustainable Development (EPD)’ which has rapidly developed since 1998. By the end of 2008, ‘Educating for a Sustainable Future’ registered over 1000 schools from 14 provinces as ESD pilot schools in China [4].

Though the development of ESD in China has been rapid, there is limited literature on the empirical development and theoretical considerations of ESD in China’s contextual settings. This is significant because studies agree that the lack of an official policy for ESD in China often misleads interpretations of ESD and creates implementation barriers [5]. As

the authors will establish, ESD discourse has varied over time as it has been contextualized and shaped by domestic interests across China's education policies and SD reports. In domestic discourse, 'ecological civilization' was invented in association with ESD and has become a stand-in for ESD in Chinese education policies in recent years. Domestic ESD discourse has nonetheless created disputes over the functions and scopes of ESD, which has made it difficult to address ESD in educational system in China. Therefore, this research aims to explore the ESD discourse that has taken place in China's SD report and education policies since the 1990s. In doing so, this research encourages constructive criticism of ESD in China regarding its 2030 agenda.

The following section will introduce the international origins and theoretical considerations of ESD. By using discourse analysis, this research explores China's education policies and SD reports, and records three decades' worth of changes in ESD discourse, from international recognition to domestic policy agenda. The discussion section highlights the implications of environmental conservation focused ESD and its consequences on shaping the future of ESD in China.

2. A Brief History of Education for Sustainable Development

Sustainability has ecological and economic qualities woven into its definition. The term was originally used in forestry by economists in reference to the size a harvest needed to maintain long-term production [6]. The term quickly became a globally recognised concept due to rising concerns about environmental degradation and natural resource scarcity. Beyond forestry, sustainability 'literally means "a capacity to maintain some entity, outcome, or process over time" and carrying out activities that do not exhaust the resources on which that capacity depends' [1] (p. 69). Since then, the term 'sustainability' has been used widely due to its inclusivity and compatibility.

In 1987, the Brundtland Report introduced the concept of SD and paid attention to social, ecological, and economic issues that exist in the contemporary world [2]. SD as a concept was then created and defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' [7] (p. 43). This idea was eventually divided into three dimensions according to Elkington's (1994) Triple Bottom Line Theory: social sustainability, economic sustainability, and ecological sustainability. Social sustainability, often called social solidarity or social inclusion, includes the development of social equality for people regardless of their race, gender, or nationality and focuses on human development [8]. Economic sustainability refers to the development of economic activities that eliminate hunger and poverty, improve human health conditions, and foster efficient economic activities without compromising the other two pillars [8]. Environmental sustainability refers to the reduction of carbon emissions and pollution, protection of the ecosystem, and the reduction of environmental degradation [8].

Before the global adoption of ESD, environmental education (EE) emerged in the 1970s in reaction to increasing awareness of environmental degradation and development issues. Gaining insight from *The Limits to Growth* (1972) and other books, conferences, and social activities, the United Nations quickly proposed an EE framework in the Belgrade Charter (1975). The goal of the proposed EE was to raise public awareness of the current state of the environment and its associated problems, and to develop 'knowledge, skills, attitudes, motivations, and commitment to work individually and collectively towards solutions to current problems, and the prevention of new ones' [9] (p. 3). The framework was further developed in the Tbilisi Declaration (1977), which proposed extending EE to include 'biological, ethical, social, cultural, and economic aspects of environmental issues' and building the foundation for EE and later ESD in the global paradigm [10] (p. 734).

The Rio Earth Summit (1992) further catalysed the connection between EE and ESD. 'Chapter 36' of Agenda 21, which was established at the conference, reoriented education goals towards SD. These objectives built upon the EE framework proposed by the Tbilisi Declaration (1977) and emphasised the importance of this approach [11] 'Chapter 36' of Agenda 21 proposed four education goals: 'promote and improve the quality of education,

reorient the curricula [towards sustainability], raise public awareness of the concept of sustainable development, [and] train the workforce' [12] (p. 7). However, these educational objectives included facets of social justice, economic development, culture, equality, and sustainability that surpassed the scope of EE [12]. These newly-added educational objectives were equally important, however, and needed to be addressed. ESD was thus created to address growing concerns about the environment and humanity and fulfil needs in the education and development sectors [10]. The paradigm shifted; ESD joined SD, as a chief objective of the global agenda.

After 1992, UNESCO developed the concept and framework of ESD. Since the Convention of SDGs in 2015, the definition and scope of ESD have been broadened to meet the increasing challenges that society faces. According to UNESCO, ESD is meant '[to] empower learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society . . . while respecting cultural diversity' [13]. UNESCO proposes a balanced approach to applying ESD to environmental, economic, social, and cultural issues and focuses on learning outcomes, learning content, pedagogy, and learning environment. ESD is also a component of the fourth goal of SDGs, which aims to promote education access, equity, and quality [14]. Most importantly, the UNESCO ESD framework explains the intimate relationship between SD and ESD. ESD brings SD knowledge to the public and promotes social transformation towards sustainability [15].

The adoption of ESD can be divided into two main facets: (1) the actualisation of SD stakeholders' beliefs in using education as a tool to promote global sustainability (i.e., the SD perspective) and (2) the establishment of education stakeholders who integrate SD ideas into education systems over the past decade (i.e., the education perspective) [15]. The SD perspective attempts to use education as a tool for facilitating and promoting SD values, knowledge, and beliefs, whereas the education perspective employs SD values in educational practices such as skills and competency training in schools. The relationship between the two perspectives is best described by Scott and Gough (2003) in 'Theory of Change', in which they connect education and change and identify three types of interconnections of SD (Table 1). The first approach, or the Type One Theory, considers environmental problems as the fundamental issue of SD [16]. Scott and Gough (2003) propose a linear relationship between education and change in SD: 'educating people about environmental issues would automatically result in more pro-environmental behaviors' [16] (p. 112). Despite previous research decrying a linear relationship between education and change, Scott and Gough (2003) argue that such a relationship is feasible within the context of SD. Environmental problems can be understood through scientific perspectives and solved via social actions and education technologies that emphasise environmental knowledge [16].

Table 1. Theory of Change by Scott and Gough (2003) (Organised by the Authors) [16].

	Type 1	Type 2	Type 3
Problems of Sustainable Development	Environmental	Social and/or political actions with environmental consequences	A sophisticated situation beyond existing knowledge
Solutions of Sustainable Development	Environmental and social actions, advancements, and technologies	Social, political, and scientific developments in knowledge and technologies	A heuristic and open-ended learning process to overcome the uncertain challenges of the future

The Type Two Theory, or second approach, that Scott and Gough (2003) propose suggests that social, rather than environmental, problems are the central issue of SD. Scott and Gough (2003) employ critical theory that they attempt to not only understand the issue but also resolve the matter through educational perspectives [16]. Type Two Theory suggests that the social problems of SD can be solved through advanced educational technology that motivates learners to understand the social impediments to SD and to take "appropriate [collective] social, political and environmental action[s]" [16] (p. 113).

The Type Three Theory, or third approach, rejects the previously proposed interrelations between Education and SD. Scott and Gough (2003) argue that the Type One and Type Two Theories are incompatible and restrict our vision for a sustainable future. The Type Three Theory suggests that SD is an issue associated with complexity, uncertainty, risk, and necessity [16]. These attributes contribute to inadequately defined problem of Sustainable Development in Type One and Type Two, as these previous theories disproportionately attribute problems to the environment or society respectively [16]. Scott and Gough (2003) suggest that education should be open-minded, heuristic, and flexible because the problem of SD is multilateral and cross-dimensional. Scott and Gough (2003)'s theory provides a unique lens through which to view the problem of SD in China and the changing definition of ESD in recent decades. Following the current development of ESD on the global stage, ESD emerged in China in 1992. In fact, China's Agenda 21 listed environmental education as a pivotal tool to foster SD in the education system; however, disparities linked to the scope, definition, and functions of ESD persist. Aside from a lack of ESD policy at the national level, ESD as a concept has been redefined by domestic interests. This research thus aims to reveal these definitional variations in SD reports and education policies and to investigate functions and patterns of ESD in China.

3. Method

There is no official ESD policy in China, so this research has aimed to define ESD via the Chinese government's education policies. As there are limited education policy documents containing the term 'ESD', we have investigated three National SD Reports (1997, 2002, and 2011) to understand the relationship between SD and ESD, and the role, function, and scope of ESD in China. In total, we have identified seven policy and report documents that include the term 'ESD' and explain its meaning and function (Table 2).

Table 2. National Reports on Sustainable Development and Education Policies (Organised by the Authors).

Release Date	Policy Document/Report
1994	China's Agenda 21
1997	China's National Sustainable Development and Progress Report
2002	China's National Report on Sustainable Development
2008	The Guidelines of Education for Sustainable Development for Primary and Secondary Schools in Beijing
2010	The Outline of China's National Plan for Medium and Long-Term Education Reform and Development 2010–2020
2011	China's National Report on Sustainable Development
2017	Outline of the 13th Five-Year Plan for the National Cause of Education

To better serve the purpose of this study, we have used discourse analysis as our analytical method. This research has borrowed, in part, from Reisigl and Wodak (2001)'s discourse-historical approach, an analysis that highlights historical and contextual factors in shaping discursive discourse development, and Dunn and Neumann (2016)'s methodological strategies to capture the appearances and changes of ESD discourse in China. The interdisciplinarity of Reisigl and Wodak (2001)'s discourse-historical approach has allowed this research to investigate ESD discourse from an educational and political perspective, rather than from a purely linguistic approach [17]. The identifying and mapping discourse strategies from Dunn and Neumann (2016) have offered a heuristic, analytical, and strategic mechanism to identify, connect, and interpret ESD discourse found in multiple policies and reports [18].

The analysis follows a chronological order and is divided into three sections: 1990s, 2000s, and post-2010.

3.1. ESD Discourse in the 1990s

Education is widely considered a crucial means of distributing and promoting SD on a global scale [15], as is evidenced by China's *Agenda 21*. Motivated by China's interests on economic expansion and poverty eradication in the 1990s, *Agenda 21* introduces the concept of a knowledge economy and proposes education development and quality improvement to foster development expertise [19]. Hypothetically, trained SD expertise promotes economic prosperity, which eventually leads to the elimination of poverty in China. *Agenda 21* also includes educational objectives such as the improvement of financial support for public schools and the continuation of improvement of compulsory education quality across the country. This establishment of EE components in the education system signals the connection between SD and education in China. For example, the report includes the following objectives:

"... Strengthen the inculcation of sustainable development ideas for the learners. Include contents of resources, ecology, environment and sustainable development in the courses of 'Nature' in elementary schools and 'Geography' in secondary schools; offer module of "Development and Environment" in colleges and universities, and establish courses closely related to sustainable development, such as Environmental Studies, etc., run the idea of sustainable development throughout the entire education process from elementary level to higher education (Translated by Author)." [19] (p. 41)

Here 'sustainable development ideas' are closely associated with resources, ecology, environment, and SD contents. This relationship is framed by the international recognition of SD and is intended to balance development and environmental conservation. China is influenced by the international discourse surrounding SD, namely its environmental focus [20]. China thus promotes environmental protections in its education system to amplify SD values. This focus also appears in the first National Sustainable Development and Progress Report in 1997. The discourse surrounding ESD emerges in the education and population participation section of the report, in which the phrase 'Education for Sustainable Development' is linked with education for environmental protection in the Chinese education system:

"The Chinese government attaches great importance to education for sustainable development. Since 1992, a number of higher education institutions have newly set up environmental protection disciplines, departments, and colleges; ... environmental education courses have been added to the textbooks of primary and secondary schools to cultivate young generation's environmental awareness (Translated by Author)." [19] (p. 30)

During this time, the discourse on ESD shifts its meaning to centre on EE. SD values thus transform into 'environmental awareness' in schools. In the education system, EE is formed in the school curriculum. Under such influences, projects such as those linked to EPD further develop EE across public primary and secondary schools in China. Aside from building EE into the education system, the 1997 Report makes 'resource awareness' a key task for the public. 'Resource awareness' refers to the proper use of resources and promotion of SD in society. To promote awareness, the Chinese government creates social initiatives to introduce SD values to the public. For example, the government hosts annual activities and festivals, such as 'Energy-Saving Week', 'World Water Day', and 'China Water Day', in schools and wider society [21].

3.2. ESD Discourse in 2000s

With the rapid development of EE in China, discourse on ESD remains stable in the second China National Report on Sustainable Development. The report is released prior to the Earth Summit in 2002, which broadens conceptions of SD. Earth Summit 2002 establishes the DESD (2005–2014), which provides more opportunities and initiatives for adopting ESD in China. As ESD discourse changes internationally, China's domestic EE programmes, such as EPD, also transform their purposes and visions to prioritise ESD. Due to both international and domestic influences, Beijing has established a city-level ESD

policy in 2008 (i.e., the Guidelines of Education for Sustainable Development for Primary and Secondary Schools in Beijing), which broadens the discourse on ESD in China. This initiative is one of the few major domestic education policies in China to mention ESD in its title before the third National SD report. The policy establishment also reflects the process of reconstructing ESD discourse in China.

Throughout the 2008 policy, the definition of ESD remains similar to that which the UNESCO established, but with elements of Chinese culture incorporated. ESD is defined as acquiring scientific knowledge of an SD lifestyle and development of values and behaviours that promote social, cultural, economic, and environmental transformation [22]. The policy emphasises nine topics related to the four pillars of ESD, which relate to the environment, economy, society, and culture. Implementation plans, such as developing social corporations and school communications, are also included in the policy. Most importantly, there are four goals for constructing ESD in primary and secondary education outlined in the policy, which explicitly reflect the underlying ESD discourse and function within China's education system.

The first goal is to 'cultivate primary and secondary school students' sustainable development values, sense of SD responsibility and behaviors, which are to respect life, respect others, respect society, and respect nature' [22]. SD values, behaviours, and responsibilities are attached to a sense of respect in the policy. Respecting life, others, society, and nature indicates the construction of a harmonious relationship, not only between humanity and nature but also between humanity, life, and society. This reflects a shift in ESD discourse from EE-focused discourse to a broader educational commitment. Such an expansion is also illustrated in the efforts that UNESCO has taken since the early 2000s to quickly develop SD and ESD on the international stage. Education has continued to function as a tool to shape and cultivate learners' SD values, senses, and responsibilities. In this respect, China has followed UNESCO in its definition and adoption of ESD. The second goal of the policy is to continue carrying out EE and '... help students to develop a scientific lifestyle and behavioural habits that protect the environment, save resources, and conserve biodiversity' [22]. Here, ESD serves as a type of EE and is presented as a means of cultivating students' environmental integrity in knowledge, skills, and awareness, which is consistent with previous educational efforts.

The third and fourth goals of ESD policy reflect domestic interests, meaning that contextual and cultural considerations shape the reconstruction of ESD discourse in China. The third goal of ESD is to 'cultivate [in] primary and secondary school students a sense of responsibility to promote traditional Chinese culture, guide them to respect cultural diversity, [and] understand and respect the culture of different countries and regions' [22]. In focusing on cultural diversity, ESD gains a stronger role in the promotion of traditional Chinese culture. Cultural diversity includes ethics and values and reflects harmonious relationships between countries and ethnic groups. Since respecting cultural differences is a key component of the international recognition of ESD, these particular considerations have led to the expansion of ESD discourse in China [15].

The fourth goal of the ESD policy is tied to the SD discourse presented as the concept 'Scientific Outlook on Development'. According to this document, ESD aims to 'gradually develop [in] primary and secondary school students a people-oriented, comprehensive, coordinated, and sustainable scientific outlook on development ... and form a sense of responsibility and ability to pay attention and solve practical problems in social, cultural, environmental and economic sustainable development' [22]. Here, ESD serves two functions. The first is to establish value in education based on domestic SD principles. 'Scientific Outlook on Development' is a political theory and slogan developed by the Chinese Communist Party (CPC). It endorses economic and social development, harmonious development of humans and nature, and domestic development that fosters broad growth and advancement in China. 'Scientific Outlook on Development' is created to fulfil both international demands and domestic needs while promoting SD in China [23]. Here, the value placed on education in furthering ESD leads to the 'Scientific Outlook on

Development' in future generations and therefore shifts the development patterns of China towards sustainability with Chinese characteristics.

The second function of ESD is to develop awareness and competence related to the four pillars outlined in ESD concepts. Interestingly, social and cultural SD problems are listed as the first two aspects of the policy. Knowledge and awareness related to social justice, poverty, public safety, and cultural diversity are prioritised in enacting ESD in the education system. The emphasis here indicates that fostering the individual–society relationship as well as the human–human relationship is a priority under ESD principles. They are also the key components for a harmonious society, which is a goal of the 'Scientific Outlook on Sustainable Development'. This does not mean that environment-related education is unimportant, as it is mentioned independently in the policy as the second goal of promoting ESD; however, unlike in the multiple prior National SD Reports, the economic aspect of SD is positioned after the other three pillars. It is uncertain whether the economic perspective is considered less important in China's ESD at the primary and secondary education level, or if there are difficulties with integrating economic knowledge and competency training in ESD.

With the establishment of the Guidelines of Education for Sustainable Development for Primary and Secondary Schools in Beijing (2008), the discourse on ESD has transformed and expanded from an EE focus to a more comprehensive approach. This is due to the shift in SD and ESD sparked by UNESCO at the international level. The integration of the domestic discourse 'Scientific Outlook on Sustainable Development' into ESD signals a change in the relationship between education and SD in China.

3.3. ESD Discourse Post-2010

In 2010, the Outline of China's National Plan for Medium and Long-Term Education Reform and Development 2010–2020 was issued by the Ministry of Education. It outlines a ten-year plan for the education system and identifies educational priorities and interests for the coming decade. In the report, ESD appears as an educational priority along with Safety Education, Life Education, and National Defence Education. These areas are situated under the guise of promoting all-round development education. The policy further outlines the importance of ESD in China's education system; however, it lacks detailed ESD discourse and specific implementation plans, which creates doubt as to whether the emphasis on ESD is merely rhetoric [7]. Once again, definitions of ESD are absent in the policy.

In the following year, the third National Report on Sustainable Development (2011) further outlined the role of education in SD. Although the exact term 'ESD' does not appear in the report, the educational focus related to SD shifts towards education equity, compulsory education, vocational education, and health education [24]. Previous focuses in either the SD report or domestic policies regarding ESD content, such as EE, were not mentioned. Instead, the report illustrates ideas such as 'green consumption style' to increase citizens' ecological protection and energy conservation awareness [24]. Although the phrases ESD, EE, and even ecological education are missing in this report, the idea of environmental sustainability continues its important role in China's ESD agenda.

With UNESCO's rapid development of ESD, the end of DESD in 2014 offered an opportunity to reshape SD and ESD discourse on the international stage. During the 2015 UNSD Summit, member states of the UN proposed 17 SDGs in the 2030 Sustainable Development Agenda. The role of ESD is readdressed in target 4.7, which adds human rights, gender equality, cultural diversity, and other related topics to the construction of a sustainable future [13]. ESD is given a more important role, not only as a tool for spreading values and knowledge of SD but also as a practical approach to developing students' skills to contribute to SD.

While the definition of ESD remains volatile at the international level, discourse on ESD has been reshaped in China. In the outline of the 13th Five-Year Plan for the National Cause of Education (2017), the term ESD is listed and redefined under the term 'Enhancing Ecological Civilisation Competence':

“Extensively carry out education for sustainable development, deepen water, electricity, and food saving education, guide students to practice strict economy and combat waste, establish an ecological civilisation consciousness of respecting, conforming to and protecting nature, and therefore form sustainable development concepts, knowledge and competences, practice a thrifty, green and low-carbon, civilised and healthy lifestyle, and lead the green trend in society (Translated by Author).” [25]

A few implications emerge from the description of ESD appearing in this policy. Here, the scope of ESD has been narrowed to education for diligence and thrift, environmental awareness building, and forming SD values. A strict economy and an opposition to excessive waste are associated with the kind of low-carbon lifestyle that China has promoted since 2009. Education on waste and energy reduction is also associated with multiple goals in the SDGs, such as Goals 1, 2, and 12, which are related to poverty, hunger, and responsible consumption. The domestic interests in these areas meet the UNESCO ESD agenda and continue to construct ESD discourse and practice in China (Table 3).

Table 3. Comparison between the Key Features and ESD Discourse from the Outline of the 13th Five-Year Plan for the National Cause of Education (2017) and the UNESCO ESD Framework (Organised by the Author) [14,25].

Date	ESD in China	The UNESCO ESD Framework
Post-2015	<ol style="list-style-type: none"> 1. The term ‘ESD’ is subject to ‘the Scientific Outlook of Development’ and the ‘Ecological Civilisation’ 2. ESD relates to education for diligence and thriftiness, environmental awareness building, and forming sustainable development values. 3. Other ESD aspects of ESD principles from the UNESCO framework, such as education equality and poverty are distributed to other education goals in the policy 	<ol style="list-style-type: none"> 1. ESD empowers learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society. 2. ESD is a key enabler for the 17 SDGs and is part of Goal 4 Quality Education. 3. ESD is a lifelong learning process and is holistic and transformational, and encompasses learning content and outcomes, pedagogy and the learning environment itself.

The second implication of the 2017 policy is connected to the goal of constructing harmonious relationships between humanity and nature. A new discourse (i.e., ‘the ecological civilisation’) appears as an important indicator proposing environmental significance in relation to the promotion of social transformations [26]. Extrapolated from the prevailing SD discourse, or the ‘Scientific Outlook of Development’, ‘ecological civilisation’ is ‘a promise . . . [that enhanced] environmental consciousness of all citizens, a turn towards green need not reduce economic growth’ [27] (p. 323). This discourse first appears in 2007 and is extensively used beginning in 2012 [28]. Internationally, the concept of ‘Ecological Civilisation’ appeared in multiple international fora and negotiations led by China to show its efforts to combat climate change and foster SD [27]. Domestically, the reinforcement of an ‘Ecological Civilization’ signals an ideological transformation that stresses the importance of building intimate relationships between economic growth and environmental protection [29]. With the establishment of an ‘Ecological Civilization’, the re-emphasis of ecological protection has created an important role for education. As a goal of ESD, enhancing civil awareness of respecting and protecting the environment has been an important educational task since ESD entered China. ‘As domestic discourse redefines the international standards of ESD, ‘ecological civilisation’ simply combines ideas of environmental sustainability from previous adaptations of EE and ESD.

The third implication of the 2017 policy relates to the concept ‘SD Awareness, Knowledge, and Concept’, which is built on the premise of diligence and thrift within EE. The contemporary discourse of ESD in China is distinct from previous policies and reports. For example, education equality and cultural diversity education are not currently connected with ESD; however, the absence of these focuses from this discourse does not necessarily mean that they are excluded from China’s education system altogether. In the outline of the

13th Five-Year Plan for the National Cause of Education (2017), education equality, gender equality education, cultural education, and other focuses—whether they are mentioned in previous ESD policies and documents or proposed by UNESCO on the international stage—are listed independently and mentioned as prioritised education emphases [25]. These concepts in China are distinct from those employed in international ESD discourse. As a result, these independent educational objectives, such as lifelong learning, are not considered to be within the scope of ESD in China. The key changes in ESD discourse that emerge in national policies and reports are displayed below (Table 4).

Table 4. Key Features and ESD Discourses from the National Report on Sustainable Development and Education Policies (Organised by the Author).

Released Date	Document/Report	Level of Establishment	Key Features and Discourses
1994	China's Agenda 21 [19]	National	Ties and builds education and SD in the education system Focuses on education on ecology, resources, environment, and sustainable development
1997	China's National Sustainable Development and Progress Report [21]	National	Connects the term 'ESD' with EE and 'resource awareness'
2002	China's National Report on Sustainable Development	National	ESD discourse remains the same, connected with environmental education
2008	The Guidelines of Education for Sustainable Development for Primary and Secondary Schools in Beijing [22]	Municipal	Utilises UNESCO's ESD framework while adding Chinese culture ESD is defined as acquisition of scientific knowledge of a sustainable development lifestyle and development of values and behaviours to promote social, cultural, economic, and environmental transformation Embeds 'the Scientific Outlook on Development' in the ESD as its primary guideline
2010	The Outline of China's National Plan for Medium and Long-Term Education Reform and Development 2010-2020 [30]	National	ESD is an education priority The term 'ESD' relates to Safety Education, Life Education, and National Defence Education to promote all-around development education
2011	China's National Report on Sustainable Development [24]	National	The term 'ESD' is not used in the report Education prioritises shift to education equity, compulsory education, vocational education, and health education
2017	Outline of the 13th Five-Year Plan for the National Cause of Education [25]	National	The term 'ESD' is incorporated in the discourses, 'the Scientific Outlook of Development' and 'Ecological Civilisation' ESD relates to education for diligence and thrift, environmental awareness, and the formation of SD values. Other aspects of ESD principles from the UNESCO framework are attributed to separate education goals

4. Discussion

China's most recent policy appears to limit the definition of ESD to EE. More importantly, political discourses from the domestic agenda play increasingly prominent roles in establishing ESD's form and purpose in national policies. As argued above, the domestic concepts 'The Scientific Outlook of Development' and 'Ecological Civilisation' have become

embedded into Chinese ESD discourse. This assimilation has two implications. The first implication is the growing significance of ESD in China's national agenda, as is evidenced by the involvement of political discourse within policies [31]. The second implication is the internalising of ESD in Chinese culture, as is evidenced by different definitions of ESD in China's policies compared with those of UNESCO.

The reinterpretation of ESD within China's policy discourses 'The Scientific Outlook of Development' and 'Ecological Civilisation' reveals two pivotal relationships that remain to be investigated. The first is the relationship between UNESCO's concept of ESD and China's implied concept of ESD seen in 'The Scientific Outlook of Development' and 'Ecological Civilisation'. Returning to Scott and Gough (2003)'s theory of change, Type One Theory suggests that the problem of SD is purely environmental, while Type Two Theory suggests that the problem of SD is social. Type Three Theory recognises the multilateral and cross-dimensional problems of SD, which cannot be solved through solely environmental or social actions. UNESCO's definition of ESD adheres to Type Three Theory, as it integrates social, cultural, economic, and environmental objectives into the SDGs. For example, SDG 8: 'Decent Work and Economic Growth', utilises an economic perspective but asks educators to prepare students to solve both economic and social problems of SD. Education thus serves as a tool to solve the multilateral and cross-dimensional problems of current and future SD. In contrast, China's definition of ESD more closely resembles Scott and Gough (2003)'s Type One and Type Two Theories. The SD problems that ESD addresses in China's most recent 2017 Policy are environmental and social; the policy focuses on EE and education on responsible consumption. The discourse of 'Ecological Civilisation' further typifies China's goals of ESD—environmental conservation and responsible consumption—which depart from the UNESCO ESD framework. A clear comparison is presented in Figure 1.

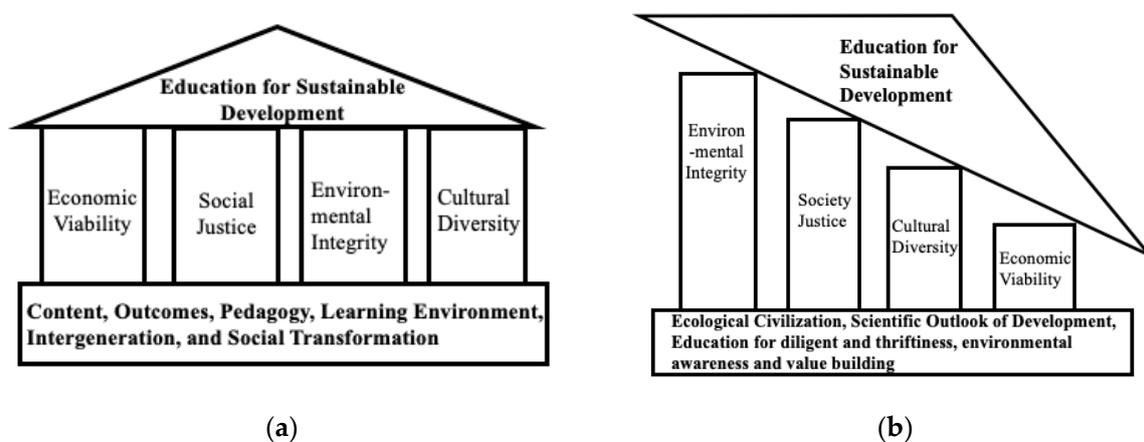


Figure 1. UNESCO concept of ESD vs. China's ESD. (a) Ideal education for sustainable development. (b) Education for sustainable development in China.

UNESCO's four dimensions of ESD are equally important to prepare students for the future of SD [13]. In contrast, China's current policies on ESD seem to overemphasise strictly environmental goals. Analysing the most recent 2017 policy, it appears that the scope of ESD is explicitly limited to responsible consumption and natural conservation. Much of the original meaning of UNESCO's vision for ESD has been substituted by domestic discourse via the 'Ecological Civilisation' concept. The environmental integrity mentioned in UNESCO's definition of ESD is conceptually different from that of 'Ecological Civilisation'. According to the UNESCO framework, environmental integrity is interconnected with economic, social and cultural sustainability. For example, SDG 13 'Climate Action' requires environmental considerations in reducing emissions and aims to integrate socio-economic factors, such as energy transition, when implementing educational policies. In contrast, 'Ecological Civilisation' solely focuses on the environmental conservation and lacks the ability to interconnect the potential social, cultural, and economic impacts of the

actions. According to ‘Ecological Civilisation’, UNESCO’s four pillars and interdisciplinary approach to ESD are disconnected and weak. The purpose of ESD in China has moved away from nurturing learners and providing the knowledge, awareness, and competency needed for a sustainable society; rather, ESD, or the ‘Ecological Civilisation’, has become a tool primarily used for promoting environmental awareness, knowledge, and competence.

The differing schedules of SD challenges that are recognised by China and UNESCO also affect the relationship between SD and the ‘Ecological Civilisation’ in China. The relationship between SD and ESD has been nurtured since the birth of both concepts [15]. Education has been viewed as an important tool to share SD content and knowledge with learners and enhance their SD attitude and awareness; however, the introduction of the ‘Ecological Civilisation’ in China seems to weaken this relationship. According to Xie et al.’s (2008) study on the role of sustainability in China’s development between 1978 and 2008, SD in China quantifiably overemphasises economics (Figure 2) [32].

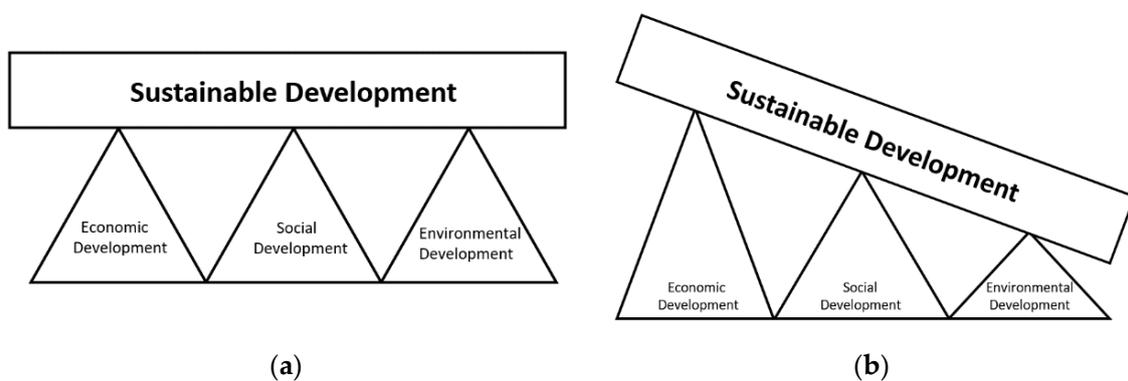


Figure 2. A comparison between (a) Ideal UNESCO sustainable development status vs. (b) China’s sustainable development status [32] (p. 535).

Based on a statistical analysis of the data from 1978 to 2008, China’s inferior SD status indicates that environmental development is in a state of disrepair. Unlike the balanced approach promoted by UNESCO, China’s economic development index, social development index, and environmental development index are 0.92, 0.81, and 0.47 (–1 and 1 scale) respectively [32]. This means that economic development and social development in China is highly sustainable, whereas the environmental development index is nearly half that of the economic index [32]. Most importantly, the natural resource sustainability index is 0.38, which is far below the economic and social development index [32]. This disparity raises concerns about the environmental capacity for accommodating rapid economic and social development and the delay of environmental development in the overall picture of SD [30]. Although China has recently expressed interest in addressing climate change and the development of a low-carbon economy, the status of SD remains precarious [26].

Given the skewed SD in China, the introduction of ‘Ecological Civilisation’ brings educational opportunities for China to restore the environmental goals of SD. ‘Ecological Civilisation’ introduces knowledge and incentivises learners to behave in ways that are environmentally sustainable. Results from Xie et al. (2008)’s study suggest the urgent need to improve environmental sustainability in China. The introduction of ‘Ecological Civilisation’ therefore may potentially address the weakness of the environmental aspect of SD in China given the recent endorsement by Xi Jinping, the president of China. However, the relationship between ‘Ecological Civilisation’ and SD remains unbalanced. As mentioned earlier, ‘Ecological Civilisation’ only covers the environmental aspects of ESD and overlooks its other three components (shown in Figure 1). The acknowledgment of economic impacts while promoting ‘Ecological Civilisation’ is absent throughout the examined education policies. However, China’s SD focus remains on economic development despite the Chinese government’s extensive promotion of environmental sustainability [33].

These conflicting goals create a disconnection between SD and ESD and raise uncertainty about the true function of ESD in China. Internationally, ESD resides as a tool within the larger scope of accomplishing SD [4]. In China, where the priorities of ESD are different, the extent to which ‘Ecological Civilisation’ can actualise the complete objective of SD remains questionable. Again, the scope of ‘Ecological Civilisation’ mentioned in the 2017 policy only targets knowledge, attitudes, and competence related to education for ecological conservation and responsible consumption. Key issues related to the economic and competency goals of SD in China such as ‘green economy’, energy transition, and key competence such as strategic competency and systems thinking competency are inadequate under the current scope of ‘Ecological Civilisation’ [15,21,34]. Given China’s divergent definitions of SD and ESD, ‘Ecological Civilisation’ therefore can only provide limited educational support to the environmental goals of ESD, as it loses its educational function to fully support the existing SD in China.

5. Conclusions

This research examines the reception of ESD in Chinese education policies over recent decades. Findings show that the concept of ‘Ecological Civilisation’ replaces traditional definitions of ESD in China’s most recent policies. Furthermore, China’s domestic discourse dilutes UNESCO’s definition of ESD to environmental protection education and weakens the relationship between ESD and SD. Analysis shows that ‘Ecological Civilisation’ is unable to foster the educational function that promotes SD; rather, the term is a domestic substitute that aims to develop students’ environmental awareness, knowledge, and competence. A possible reason ‘Ecological Civilisation’ is replacing ESD despite these problems is the absence of a national definition of ESD. Since ESD remains undefined and its scope remains unclear, it is essential to establish comprehensive ESD policies in China that clarify the function, scope, and role of ESD in the education system and its relationship with SD.

This research has several limitations. First, this research only reveals the changes in ESD discourse in China’s education policies. ESD may also appear as supplementary elements in other policy documents, such as regional development policies and development agendas. These ESD discourses can further demonstrate the meaning, importance, and role of ESD in China. Second, ‘Ecological Civilisation’ and ‘Scientific Outlook on Development’ are political discourses heavily endorsed by the Chinese government. In short, ‘Ecological Civilisation’ provides a new approach to ESD that is filled with domestic interests. Although there are discrepancies in the function and scope of ESD within the concept of the ‘Ecological Civilisation’, this new interpretation of ESD can build a foundation for future ESD implementations in China. Therefore, further empirical research is suggested to investigate the implementation and effectiveness of the ‘Ecological Civilisation’ in educational institutions in China.

Author Contributions: Conceptualization, R.Z.; methodology, R.Z.; software, R.Z.; validation, R.Z.; formal analysis, R.Z.; investigation, R.Z.; resources, R.Z.; data curation, R.Z.; writing—original draft preparation, R.Z.; writing—review and editing, N.L.; visualization, R.Z.; supervision, N.L.; project administration, R.Z.; funding acquisition, R.Z. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data sharing not applicable.

Acknowledgments: Special acknowledgements to the three anonymous reviewers.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Klarin, T. The concept of sustainable development: From its beginning to the contemporary issues. *Zagreb Int. Rev. Econ. Bus.* **2018**, *21*, 67–94. [CrossRef]
2. The United Nation Sustainable Development. Available online: <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> (accessed on 12 January 2022).
3. Bradbury, I.; Kirkby, R. China’s agenda 21, a critique. *Appl. Geogr.* **1996**, *16*, 97–107. [CrossRef]
4. Filho, W.; Pace, P. Teaching education for sustainable development: Implications on learning programmes at higher education. In *Teaching Education for Sustainable Development at University Level*; Filho, W., Pace, P., Eds.; Springer International Publishing: Cham, Switzerland, 2016; pp. 1–6.
5. Han, Q. Education for sustainable development and climate change education in China: A status report. *J. Educ. Sustain. Dev.* **2015**, *9*, 62–77. [CrossRef]
6. Ike, D. The system of land rights in Nigerian agriculture. *Am. J. Econ. Sociol.* **1984**, *43*, 469–480. [CrossRef]
7. Witoszek, N. Teaching sustainability in Norway, China and Ghana: Challenges to the UN programme. *Environ. Educ. Res.* **2018**, *24*, 831–844. [CrossRef]
8. Sachs, J. From millennium development goals to sustainable development goals. *Lancet* **2012**, *379*, 2206–2211. [CrossRef]
9. The United Nation. The Belgrade Charter: A framework for environmental education. Available online: <https://unesdoc.unesco.org/ark:/48223/pf0000017772> (accessed on 13 January 2022).
10. Hume, T.; Barry, J. Environmental education and education for sustainable development. In *International Encyclopedia of the Social & Behavioral Sciences*, 2nd ed.; Wright, D., Ed.; Elsevier: New York, NY, USA, 2015; pp. 733–739.
11. The United Nations. Available online: [Un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf](https://un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf) (accessed on 13 January 2022).
12. The UNESCO. Reivew of Contexts and Structures for Education for Sustainable Development. Available online: http://www.unesco.org/education/justpublished_desd2009.pdf (accessed on 13 January 2022).
13. The United Nation. Transforming Our World: The 2030 Agenda for Sustainable Development. Available online: https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed on 13 January 2022).
14. The UNESCO. Available online: <https://en.unesco.org/themes/education-sustainable-development> (accessed on 14 January 2022).
15. Leicht, A.; Combes, B.; Byun, W.; Agbedahin, A. From agenda 21 to target 4.7: The development of ESD. In *Issues and Trends in Education for Sustainable Development*; Leicht, A., Heiss, J., Brun, W., Eds.; UNESCO Publishing: Paris, France, 2018; pp. 25–39.
16. Scott, W.; Gough, S. *Sustainable Development and Learning*; Routledge Falmer: London, UK, 2003.
17. Reissigl, M.; Wodak, R. The discourse-historical approach (DHA). In *Methods of Critical Discourse Analysis*; Wodak, R., Meyer, M., Eds.; Sage Publications Ltd: New York, NY, USA, 2001; pp. 87–121.
18. Dunn, K.; Neumann, I. *Undertaking Discourse Analysis for Social Research*; University of Michigan Press: Ann Arbor, MI, USA, 2016.
19. People’s Republic of China. China’s Population and Development in the 21st Century. Available online: <https://www.fmprc.gov.cn/ce/celt/eng/zt/zfbps/t125259.htm> (accessed on 15 January 2022).
20. Haque, S. Environmental discourse and sustainable development: Linkages and limitations. *Ethics Environ.* **2000**, *5*, 3–21. [CrossRef]
21. People’s Republic of China. China’s National Sustainable Development and Progress Report. Available online: <http://www.acca21.org.cn/trs/000100170002/9301.html> (accessed on 14 January 2022).
22. Beijing Municipal Education Commission. Available online: http://jw.beijing.gov.cn/xxgk/zfxgkml/zfgkzcwj/zwgkxzgfwj/202001/t20200107_1562780.html (accessed on 14 January 2022).
23. Fewsmith, J. Promoting the scientific development concept. *China Leadersh. Monit.* **2004**, *11*, 1–10.
24. People’s Republic of China. The People’s Republic of China National Report on Sustainable Development. Available online: <http://chnun.chinamission.org.cn/chn/zt/zsdr2012/> (accessed on 14 January 2022).
25. The State Council of People’s Republic of China. Available online: http://www.gov.cn/zhengce/content/2017-01/19/content_5161341.htm (accessed on 14 January 2022).
26. Kuhn, B. Sustainable development discourses in China. *J. Sustain. Dev.* **2016**, *9*, 158–167. [CrossRef]
27. Hansen, M.; Liu, Z. Air pollution and grassroots echoes of ‘ecological civilization’ in rural China. *China Q.* **2018**, *234*, 320–339. [CrossRef]
28. Geall, S.; Ely, A. Narratives and pathways towards an ecological civilization in contemporary China. *China Q.* **2018**, *236*, 1175–1196. [CrossRef]
29. Zeng, L. Dai identity in the Chinese ecological civilization: Negotiating culture, environment, and development in xishuangbanna, southwest China. *Religions* **2019**, *10*, 646–666. [CrossRef]
30. People’s Republic of China. The Outline of China’s National Plan for Medium and Long-term Education Reform and Development 2010–2020. Available online: http://www.gov.cn/jrzq/2010-07/29/content_1667143.htm (accessed on 15 January 2022).
31. Renwick, N.; Cao, Q. China’s political discourse towards the 21st century: Victimhood, identity, and political power. *East Asia* **1999**, *17*, 111–143. [CrossRef]
32. Xie, G.; Zhen, L.; Lu, C.; Zhang, Y.; Xiao, Y.; Cao, S.; Liu, C. Sustainability status and trends of China’s development: An assessment based on the natural resource base. *Resour. Sci.* **2008**, *30*, 531–536.
33. Du, W.; Yan, H.; Feng, Z.; Yang, Y.; Liu, F. The supply-consumption relationship of ecological resources under ecological civilization construction in China. *Resour. Conserv. Recycl.* **2021**, *172*, 105679. [CrossRef]
34. Yao, H.; Zang, C. The spatiotemporal characteristics of electrical energy supply-demand and the green economy outlook of guangdong province, China. *Energy* **2021**, *214*, 118891. [CrossRef]