

Research on C-E Translation Strategies in the White Paper *Carbon Peaking and Carbon Neutrality China's Plans and Solutions* from the Perspective of Eco-Translatology

Zixuan Qiu, Wen Zhou*

School of International Studies, NingboTech University, Ningbo 315100, Zhejiang, China

*Corresponding author: Wen Zhou, zw168@nbt.edu.cn

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Climate change has received growing global attention, and addressing it increasingly requires cross-border cooperation. China has issued Carbon Peaking and Carbon Neutrality China's Plans and Solutions, an authoritative white paper presenting China's climate governance philosophies, practices, and outcomes. Its English translation plays an important role in communicating China's climate initiatives and supporting international understanding. At the same time, the text contains many China-specific expressions, including policy terminology, four-character phrases, technical clusters, and culturally embedded concepts, which create particular difficulties in translation. Drawing on Hu Gengshen's Eco-translatology, this paper examines the translational eco-environment of the White Paper, identifies major linguistic and cultural difficulties, and discusses the strategies used in rendering climate policy discourse into English. Particular attention is given to linguistic, cultural, and communicative adaptation, together with lexical, syntactic, cultural-image, and discourse-level selection. The analysis shows that the official English version frequently restructures Chinese sentence patterns, makes compressed policy relations more explicit, and adjusts culturally specific images according to their communicative function.

Keywords: White Paper on Carbon Peaking and Carbon Neutrality China's Plans and Solutions; Eco-translatology; Adaptation and selection; Translation strategies

Online publication: October 21, 2026

1. Introduction

Addressing climate change increasingly requires international cooperation. As the world's largest developing country, China has continued to promote green development and has incorporated peak carbon and carbon neutrality into its national development strategy. The White Paper Carbon Peaking and Carbon Neutrality

China's Plans and Solutions (hereafter referred to as the White Paper), issued by the State Council Information Office, presents China's major climate policies, practices, and achievements ^[1]. Its English version provides an important channel for communicating these policies internationally.

The translation of the White Paper is not simply a matter of replacing Chinese expressions with English equivalents. The source text combines political concepts, technical terminology, institutional expressions, rhetorical formulations, and condensed four-character structures. Translators therefore need to consider not only lexical meaning but also sentence organization, policy register, and the background knowledge of international readers.

Eco-translatology, proposed by Hu Gengshen, regards translation as a process of "adaptation and selection" in the translational eco-environment ^[2]. Translation is understood as an activity in which the translator reacts to the interactive linguistic, cultural, communicative, and contextual conditions and selects forms suitable for the target environment.

Eco-translatology identifies the linguistic, cultural, and communicative dimensions as useful perspectives for understanding adaptive transformation ^[3]. Chen applies these dimensions to the English translation of the 2020 Government Work Report ^[4]. Robinson discusses eco-translatology in relation to traditional Chinese thought and offers an English-language account of its conceptual background ^[5].

Under this framework, this study examines the representative expressions in the official Chinese and English versions of the White Paper. The analysis focuses on linguistic, cultural, and communicative adaptation, taking into account lexical and syntactic choices, cultural image choices, and textual choices.

2. Textual features and translation challenges

2.1. Lexical, syntactic, and rhetorical features

The White Paper maintains the formal tone of an official policy document, but its language is often concise and relatively accessible. Expressions such as "China always honors its commitments" (中国一向重信守诺、言出必行) and "historic results" (历史性成就) reflect this style ^[1, 6]. The text also contains a number of standardized policy expressions, including "national strategy" (国家战略), "full-scale green transition" (全面绿色转型), and "puts eco-environmental conservation first" (生态优先) ^[1, 6].

Technical terms are often used together with more rhetorical or policy-oriented wording. For instance, "establishing the new before decommissioning the old" (先立后破) appears in the same policy context as "non-fossil energy" (非化石能源) ^[1, 6].

The document also uses expressions that are closely associated with contemporary Chinese development discourse, such as "New trio" (新三样) and "new calling card for Chinese manufacturing" (中国制造的新名片) ^[1, 6].

Culture-related expressions include "lucid waters and lush mountains are invaluable assets" (绿水青山就是金山银山) and "Clear Your Plate campaign" (光盘行动) ^[1, 6].

Syntactically, the Chinese version frequently omits an explicitly repeated subject once it has been established. For example, the sequence "构建了 政策体系, 建成了 能源体系, 形成了 产业链, 实现了 推广应用" continues through several verbs without restating the subject ^[6]. Parallel structures are also common. The sentence "统筹发展和减排、整体和局部、长远目标和短期目标、政府和市场的关系" places four pairs of relationships in parallel ^[6].

Long sentences are used to connect policy goals, measures, and implementation structures. For instance, "为实现碳达峰碳中和目标, 中国构建了全球最系统完备的碳减排政策体系 —— 碳达峰碳中和 '1+N'"

政策体系,明确时间表、路线图、施工图” contains several levels of information in one extended structure ^[6].

Rhetorical language also appears without replacing the document's formal register. For example, “为全球气候治理注入更大动力和更多确定性” is rendered as “injecting greater impetus and more certainty into global climate governance” ^[1, 6]. The dynamic image is retained in English.

2.2. Translation difficulties

A common challenge comes from the differences between Chinese and English in organizing grammatical relations. Chinese is more dependent on context, clause sequence, and semantic relevance, while English policy texts tend to make subjects and logical relationships clearer.

For example, consider “中国坚持全国一盘棋,强化顶层设计,把绿色低碳作为鲜明导向,融入国民经济循环各领域各环节。中国国家发展改革委充分发挥碳达峰碳中和统筹协调作用,会同各地区各部门积极稳妥推进碳达峰碳中和” ^[6]. The official English version reads: “China ensures a coordinated national response through stronger top-level design, steering every sector and every link of the economy onto a green, low-carbon path. The National Development and Reform Commission fully leverages its role in coordinating provincial authorities and central departments to drive progress towards peak carbon and carbon neutrality in an active and prudent manner” ^[1].

The translation does not render the Chinese clauses in word-for-word order. “全国一盘棋” is translated as “a coordinated national response,” and the second sentence takes “The National Development and Reform Commission” as an explicit subject. Thus, the English version rearranges the metaphor and sentence structure to clarify the institutional relationship.

Cultural characteristics in the policy statements are also hard to translate. Lotman points out that linguistic meaning is closely related to a broader cultural and semiotic system ^[7].

This is shown in the phrase “integrated conservation and management of mountains, waters, forests, farmlands, grasslands, and deserts” (山水林田湖草沙一体化保护和系统治理) ^[1, 6]. The Chinese expression integrates seven ecological elements into a unified policy concept. However, the English version arranges the six categories of “mountains, waters, forests, farmlands, grasslands, and deserts” in a certain order, where “waters” means both “水” and “湖.”

The same problem can also be seen in other four-character expressions like “双轮驱动,” “内外畅通,” and “节约优先.” These expressions are usually more understandable in combination with the surrounding context. Therefore, although a direct translation can keep the surface structure of the original text, it cannot adequately convey its intended policy significance.

3. Adaptation and selection strategies from an eco-translatological perspective

3.1. Linguistic adaptation

The variation in sentence structure between Chinese and English is an important factor in the translation of white papers. Jia Wenbo also discusses the relationship between translation choices and their linguistic and communicative functions ^[8]. Consider the sentence “中国立足基本国情和发展阶段,在保障能源安全的前提下,大力实施可再生能源替代,推进新型能源体系和新型电力系统建设,为实现‘双碳’目标提供有力支撑” ^[6].

The official translation reads: “Proceeding from its basic reality and development stage and conditional on ensuring energy security, China has taken vigorous measures to substitute renewables for fossil fuels and promoted

a new energy and power system. This provides strong support for achieving the dual carbon goals”^[1].

The Chinese sentence brings together background conditions, policy actions, and their intended contribution in one continuous structure. In the English version, the background is expressed through “Proceeding from...” and “conditional on...”, while “China” becomes the main grammatical subject. The final idea is then moved into a separate sentence beginning with “This,” which links the previous measures to their stated contribution without adding new policy content.

From an eco-translatological perspective, this can be seen as linguistic adaptation. The sentence structure is reorganized, but the main information and logical relationship of the source are still maintained.

3.2. Cultural adaptation

Bu and Zhu apply the three-dimensional framework to culture-loaded words in the President of the CPC: The Governance of China^[9]. When a policy expression involves a common cultural symbol or is expressed in a concise form, cultural adaptation is often needed^[3].

The term “双轮驱动” indicates the roles of the government and the market through the metaphor of two wheels working together^[6]. In the original English version, it is written as “Leveraging the roles of the government and the market”^[1]. Compared with the original metaphor of a vehicle, the translation directly explains the two institutional actors.

If the phrase “two-wheel drive” is translated literally, the metaphor would be retained, but English readers would still need to infer what the two “wheels” represent. The official translation emphasizes the relationship between the government and the market. In other words, the core content of China’s policies remains unchanged; only the way it is expressed in English is different.

This method is suitable for policy discussions since the role of the “双轮驱动” is not merely to create a rhetorical effect. It mainly indicates the coordinating function of the two forces in governance. If these metaphors are not clarified, the policy meaning may not be easily understood by English readers. Hence, the official translation eliminates the culture-specific image while maintaining the institutional importance.

This case also illustrates that various forms of adaptation can occur simultaneously. Linguistically, the original four-character expression is given in a verb-noun structure. From a cultural viewpoint, the vehicle metaphor is omitted. At the communicative level, the two policy actors are clearly stated. Therefore, cultural adaptation does not operate alone but is carried out in conjunction with linguistic and communicative adjustments.

3.3. Communicative adaptation

Communicative adaptation is mainly concerned with whether the translation gives readers sufficient information to understand the intended policy implications without requiring extensive background knowledge. From the perspective of relevance theory, this issue can be understood in terms of how readers use contextual assumptions to arrive at the intended interpretation^[10].

The “New trio” provides a clear example. The official text reads: “The ‘New trio’ of new energy vehicles, lithium-ion batteries, and photovoltaic products has become a new calling card for Chinese manufacturing”^[1]. The Chinese expression “新三样” is concise because its referents are familiar in domestic discourse. In the English version, however, the three categories are stated immediately after the label.

This treatment retains the expression “New trio” and also provides the information needed to understand it. The translation therefore does not depend entirely on the reader’s prior knowledge of Chinese economic

and industrial discourse. Instead of replacing the original label, it places the explanation directly beside it.

The phrase “a new calling card for Chinese manufacturing” is also retained as an image-based expression. Rather than turning it into a completely descriptive statement, the translation keeps some of the rhetorical character of the source and presents these products as representative of Chinese manufacturing.

Communicative adaptation in this example therefore does not simply mean making the source easier or more general. It involves giving readers enough contextual information to interpret the policy label while still retaining part of the original expression and its rhetorical effect.

3.4. Lexical and syntactic selection

In Eco-translatology, adaptation is closely connected with the translator’s selection of suitable forms ^[2].

One example can be seen in “推动源网荷储（电源、电网、负荷、储能）一体化发展，” which is rendered as “integrating the development of power source-grid-load-storage” in the official English version ^[1, 6]. The four elements—电源、电网、负荷、储能—are kept as “power source,” “grid,” “load,” and “storage” and combined into a compact technical expression. This keeps the internal structure of the original term while avoiding an unnecessarily long explanation in English.

Syntactic selection can be observed in “中国将碳达峰碳中和作为国家战略” ^[6]. The official translation is “China has made peak carbon and carbon neutrality a national strategy” ^[1]. The Chinese “将……作为……” pattern is reorganized through the English “make + object + complement” construction.

These examples show that selection may involve either maintaining technical compactness or adopting a conventional target-language structure. The appropriate degree of explicitness depends on the function of the expression.

3.5. Cultural image and policy concept selection

The White Paper contains several expressions built around images, and the official version does not follow a single rule of either preserving or removing them.

“绿水青山就是金山银山” is rendered as “lucid waters and lush mountains are invaluable assets” ^[1, 6]. The ecological scene is retained, but “金山银山” is recast as “invaluable assets.” The target text therefore preserves the relationship between environmental quality and value without reproducing the gold-and-silver image literally.

A different pattern appears in “为全球应对气候变化注入了强劲动能，” rendered as “injected strong momentum into global climate change action” ^[1, 6]. Here, “injected” and “momentum” retain the dynamic quality of the source.

These cases show that image translation depends on function. When an image remains interpretable and contributes to the policy message, it can be retained; when literal reproduction may obscure the proposition, part of the image can be recast.

3.6. Discourse style and reader-oriented selection

Official policy translation also requires attention to discourse tone. Some passages are informative, while others are persuasive and rhetorically forceful.

“坐而论道不如起而行之” is rendered as “Concrete efforts are better than empty rhetoric and inaction” ^[1, 6]. The physical images of sitting and acting are replaced by a contrast between “concrete efforts” and “empty rhetoric and inaction.” The imagery changes, but the antithesis remains.

Another example is “公平合理、合作共赢的全球气候治理体系”^[6]. The official version uses “a global climate governance system that is fair, equitable and cooperative and delivers win-win results”^[1]. The meaning of “合作共赢” is distributed across “cooperative” and “delivers win-win results” rather than represented by a single equivalent. These choices can be considered reader-centered as they clarify the policy relationships.

3.7. Evaluation criteria

The three-dimensional framework and its use in translating government documents serve as the basis for the analysis in this paper^[3-4]. The examples are studied from three aspects: transformation between different dimensions, suitability for the target readers, and the connection among the original text meaning, the target language expression, and the policy background.

“节约优先” is translated as “Prioritizing conservation”^[1, 6]. From a linguistic perspective, the gerund form is concise and suits the style of English policy headings. Semantically, “conservation” emphasizes saving energy and other resources in this context. Overall, the translation makes the policy priority clear without reproducing the compact structure of the Chinese expression.

“内外畅通” is rendered as “Coordinating domestic and international efforts”^[1, 6]. The English version directly identifies the domestic and international dimensions, while “coordinating” shows how they are connected, making the policy relation more explicit.

A third example is “将经济社会发展转到绿色低碳轨道上来”^[6]. The official version uses “steering economic and social development to become green and low-carbon”^[1]. The noun “轨道” is not reproduced as “track,” but its directional meaning is partly retained through “steering.”

Such instances show that linguistic, cultural, and communicative factors often influence each other. Lexical alterations may affect the expression of culture, while syntactic modifications may explain the relationships between policies. Thus, eco-translatology is appropriate for studying the interactions among these factors rather than dividing each example into a certain category. In the actual policy translation, a change may have effects on multiple levels at the same time. For example, replacing concise four-character expressions with more explicit English expressions is a linguistic change, but it may also reduce the cultural background knowledge required of readers, which has a communicative role. Similarly, the decision to retain or modify metaphors involves both cultural understanding and discourse selection. Therefore, the three factors should be regarded as overlapping perspectives instead of fixed classifications. The importance of this framework lies not only in recognizing different types of changes but also in explaining how various constraints jointly influence translation decisions. This more closely reflects the process of adaptation and selection in official policy translation.

4. Conclusion

The translation of white papers between Chinese and English involves significant linguistic, cultural, and political differences. From the perspective of eco-translatology, this study examines how to deal with these problems through adaptation and selection. Through adaptation, the translator adjusts the target text to comply with the conventions of English policy discourse. By choosing suitable language and style, they maintain the readability and formal tone of the translation while keeping the main policy ideas of the original text.

More specifically, ecological translation studies provide a method for examining translation from the perspectives of language, culture, and communication. At the linguistic level, adjustments in syntax and

logic help the translation conform to the conventions of the target language. At the cultural level, adaptation reduces potential explanatory differences while preserving the main policy implications of the original text. At the communicative level, translation seeks a balance between professional accuracy and accessibility. Choices at the lexical, syntactic, and textual levels also contribute to the expected formal and consistent style of official policy translation.

In the context of increasing international cooperation on climate change, the translation of China's climate governance concepts is both important and challenging. The analysis in this study indicates that ecological translation studies provide a useful framework for studying policy texts related to culture and political orientation. Its focus on adaptation and selection helps explain how translation choices not only respond to the policy intent of the source text, but also meet the needs of international communication.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] The State Council Information Office of the People's Republic of China, 2025, Carbon Peaking and Carbon Neutrality China's Plans and Solutions. Visited on August 30, 2026, http://english.scio.gov.cn/whitepapers/2025-11/08/content_118168821_4.html
- [2] Hu GS, 2004, An Approach to Translation as Adaptation and Selection. Hubei Education Press, Wuhan.
- [3] Hu GS, 2008, Eco-translatology: A Primer. *Chinese Translators Journal*, 29(6): 11–15 + 92.
- [4] Chen C, 2021, A Study on the English Translation of the 2020 Government Work Report from the Perspective of Eco-translatology. *Journal of Anshan Normal University*, 23(3): 55–58.
- [5] Robinson DJ, 2013, Hu Gengshen and the Eco-translatology of Early Chinese Thought. *East Journal of Translation*, 2013(1): 9–29.
- [6] The State Council Information Office of the People's Republic of China, 2025, Carbon Peaking and Carbon Neutrality China's Plans and Solutions. Visited on August 30, 2026, http://www.gov.cn/zhengce/202511/content_7047492.htm
- [7] Lotman YM, 1990, *Universe of the Mind: A Semiotic Theory of Culture*. I. B. Tauris, London.
- [8] Jia WB, 2004, *On Pragmatic Translation with Functionalist Approach*. China Translation & Publishing Corporation, Beijing.
- [9] Bu B, Zhu CW, 2019, Translation Strategies for Culture-loaded Words in the President of the CPC: The Governance of China from the Perspective of Eco-translatology. *Journal of Fuqing Branch of Fujian Normal University*, 2019(6): 46–52.
- [10] Sperber D, Wilson D, 1996, *Relevance: Communication and Cognition*, 2nd ed. Blackwell, Oxford.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.