

Joint Socioeconomic and Psychological Drivers of Pro-Environmental Behavior in China: A Systematic Review and Conceptual Integration

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Abstract

Drawing upon earlier research findings on the connection between socioeconomic state and pro-environmental behaviour (PEB), this paper presents a systematic review of the socioeconomic and psychological factors related to PEB among Chinese residents and makes an overall proposal for a conceptual framework combining the two factors. With China undergoing serious environmental issues in the backdrop of rapid industrialization and urbanisation, the identification of PEB determinants plays an important role to advance sustainable behaviour at individual and social level. This review provides important indicators that income, education and regional variation are important socioeconomic factors which influence the environmental attitudes and behaviours of the individuals. It also determines the psychological stages of environmental concern, personal values, and perceived behavioural control that determine the decisions of people to be involved in the sustainable behaviours. Moreover, the aspect of government policies and social norms particularly in cities is examined as the motivational one to PEB in China.

The findings have revealed that there is a complicated interaction among economic, psychological and institutional/social aspects, which implies that a linear approach is needed to explain PEB. Though there have been numerous theories suggested including the Theory of Planned Behaviour (TPB) and the Social Exchange Theory (SET) they are not enough to understand the particular socio-cultural and political situation in China. The review proposes a conceptual model integrated where it encompasses these factors with the emphasis on the necessity of modifying the Western models to the Chinese setting.

The research offers theoretical knowledge regarding PEB and offers policy implications to practitioners who would want to achieve sustainable behaviour in China. The review discusses the gaps on the literature and provides the rationale leading to observation on the future studies as well as development of effective policies to promote the environmental sustainability in China.

Keywords: Pro-Environmental Behavior; environmental concern; sustainability; environmental attitudes; social norms; green behavior.

1. Introduction

Pro-environmental behaviour (PEB) is increasingly seen as an important factor in helping to solve

the global environmental problems we are experiencing today. In the context of China, one of the largest and most industrialised countries, knowledge of what drives pro-environmental behaviour is of paramount importance. The sudden exploration of economic growth, urbanisation, and industrialization in China have come with environmental concerns such as air pollution, solid waste management, or energy consumption, and addressing these concerns requires the wide adoption of sustainable behaviours (Mi et al., 2024). Therefore, the knowledge of the factors influencing the willingness of the people to act towards responsible practises in the regard of environmental responsibility is significant to the policy makers as well as researchers.

This review studies working relationship between socioeconomic factors and psychological factors in acting as a determinant of pro-environmental behaviour in China. Socioeconomic income, education, occupation and regional inequality have been also studied extensively and it has proven to influence environmental attitudes and behaviours in numerous situations (Aral & López-Sintas, 2022). As an illustration, among others, the degree of education and income will be linked with increased enlightenment and engagement in pro-environmental behaviours, such as recycling or energy saving (Zhong et al., 2024). The environmental concern, personal values, and perceptions of behavioural control are also psychological reasons affecting sustainability in motivating individuals (Cheng & Mao, 2024). A combination of such factors provides a full picture of the motivators of pro-environmental behaviour.

1.1 Research Gaps and the Need for Integration

Although there is an increasing amount of research on this aspect surrounding pro-environmental behaviour, numerous of the previous research studies have applied the socioeconomic or psychological aspects independently. The gap in the literature should be in the need to discuss the interaction between these two sets of factors in the context of China. Although theories such as the Theory of Planned Behaviour (TPB) and the Social Exchange Theory (SET) have been extensively used to explain PEB, their usefulness in China is understudied. TPB, for instance, places a lot of emphasis on the role of attitudes, subjective norms, and perceived control in shaping behaviour (Piao & Managi, 2024), but may not fully capture the complex socio-cultural scenarios in China, where collective values, and trust in government policies, significantly shape the behaviours of Chinese individuals (Zhang & Cao, 2025). Therefore, there is a need to adapt existing models which could fit the Chinese context, with both socioeconomic and psychological dimensions to make the model more holistic about drivers of pro-environmental behaviour.

1.2 Research Objective

The main purpose of this review is to synthesise current studies on SES and psychological factors that determine pro-environmental behaviour in China and incorporate study results into a new conceptual framework. It is by exploring the interplay between these two sets of factors that the review aims to provide insights into the nature of the collective influence of economic conditions, social influences, and psychological motivations on people's involvement in environmental conservation efforts. This integration will also bring out limitations of current theories and models to explain pro-environmental behaviour in China and propose an alternative conceptual model that considers unique socio-cultural and political characteristics of the country.

1.3 Significance of the Study

Understanding the determinants of pro-environmental behavior in China is essential for designing specific interventions that aim to promote pro-environmental practices. As China plays a continuing significant role in global environmental governance, understanding the forces that drive individual behaviour can be used to advise national policies as well as environmental movements reaching the grassroots of society to pursue sustainability. Additionally, by combining the socioeconomic and psychological perspectives, this review will contribute to the broader academic discourse on

behavioural science and environmental studies where a frame can be adapted to other developing countries in comparable socio-economic situations.

The approach taken to choose and cheque the pertinent literature and a thematic analysis of the most important socioeconomic and psychological factors which cause pro-environmental behaviour will be further detailed in the subsequent parts of this paper. The paper will then conclude with a recommended conceptual model which will generalise the findings and give a new approach on the influencing factors on the pro-environmental behaviour in China.

2. Methodology

This part of the paper is aimed at providing a clear and strict description of the methodology according to which this systematic review of the literature on pro-environmental behaviour (PEB) in China has been conducted. The methods will include the search strategy, inclusion and exclusion criteria, the choice process, the method of data extraction and integration. The rationale behind the ongoing review is the integration of existing studies pertaining to the socioeconomic determinants and psychological driving factor of PEB, and, more to the point, the incorporation of the theoretical standpoints into the framework so as to create a conceptual framework based on the unique attributes of the Chinese context.

2.1 Search Strategy

A sound and comprehensive search strategy was developed in order to be certain that a comprehensive search of recent literature on related literature concerning pro-environmental behaviour would be conducted with particular emphasis on the studies that have been developed in China. The most popular database that was used to conduct this review is Web of Science; this database is a popular focus of peer-reviewed journal articles. In order to ensure that all relevant sources were tapped into, other secondary databases like Google Scholar were consulted. The search was conducted with the help of several various keywords, including: pro-environmental behaviour, environmental attitudes, China, economic factors, psychological determinants, etc. These keywords were adopted in their various combinations so as to show the extent of the research conducted on the causes of PEB in the context of China.

The search was limited to those articles that had been published recently (within the last 20 years) so that the literature used would not be obsolete. The time frame was chosen to reflect upon the rapid transformation in the economical and environmental policies that have seen the same two decades in China (Zhong et al., 2024). The search was narrowed down by a Boolean string that was based on the following search: pro-environmental behaviour" AND "China" OR Chinese" AND economic); (psychological). This string allowed making sure that the results have been applicable to the sphere of the study performed and to the Chinese situation as well as to economic and psychological determinants of PEB.

2.2 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria were applied to make sure that only the most applicable and valid studies were included. The following criteria were to be included:

- **Peer-reviewed journal articles:** Only articles published in peer-reviewed journals were included to ensure the quality and credibility of the sources.
- **English-language studies:** Given the language limitations, only studies published in English were considered. This decision was made to ensure consistency in the review process and to maintain the academic rigor of the review.
- **Conceptual/theoretical papers:** Studies that provided a conceptual or theoretical perspective on PEB in China were also included.
- **Empirical studies:** Both quantitative and qualitative studies that investigated the relationship between socioeconomic and psychological factors and pro-environmental behavior were included.

The exclusion criteria were:

- **Non-academic articles:** Articles that were not peer-reviewed or were from non-academic sources, such as policy briefs or news reports, were excluded.
- **Studies not related to behavioral or socioeconomic factors:** Studies that focused primarily on technological or ecological aspects without addressing the socio-psychological factors were excluded.
- **Duplicate studies:** Any duplicate studies identified during the search were removed to avoid redundancy.

2.3 Selection Process

The selection process of the literature was guided by the PRISMA flow diagram, an accepted methodology which promotes transparency and rigour in the systematic review process (Karimi & Mohammadimehr, 2022). The first step was identification of relevant studies using the search strategy as outlined above. The preliminary search gave a large pool of articles which was further screened for relevance by reading the title and abstracts. Studies that did not meet the inclusion criteria were excluded in this phase. After the screening, the full text of the rest of the articles was examined to determine if the articles met the criteria for inclusion.

Once the studies were selected, a detailed list of studies was compiled, and noted the number of articles found, screened, and finally included in the review. A flowchart summarising the selection procedure is presented in Figure below as it provides a good summary of the procedure used for selection and exclusion.

2.4 Data Extraction

For each study included in the review, important data was extracted and organised in a summary table. The process of extracting the data consisted of identifying the following information:

- **Author(s) and year of publication:** To track the most recent and relevant research.
- **Methodology:** Whether the study was empirical or theoretical, including details on data collection methods (e.g., surveys, interviews, experiments).
- **Key variables:** Identification of the socioeconomic and psychological factors examined in each study, such as income, education, environmental concern, and perceived behavioral control.
- **Sample size and population:** To assess the generalizability of the findings.
- **Main findings:** A brief summary of the study's key results, particularly how the identified factors influenced pro-environmental behavior.

This method of systematically extracting data ensured that this review was comprehensive and enabled the comparison of the different studies included in review to be effective.

2.5 Integration Approach

The approach to integration embraced in this review was a combination of Empirical findings (Systematic synthesis) and theoretical perspectives (conceptual integration). The purpose was to provide a deeper understanding of the social-economic and psychological determinants promoting pro-environmental behaviour in China by integrating the empirical researches and relating them to the applicable theoretical models. Such a method allowed focusing on the matter in a more holistic way, not merely on the psychological motivation on an individual level, but on a more holistic socio-economic level.

In the combination of the empirical findings the studies were categorised as similar in terms of theme and drivers i.e. income, education and environmental concern. The differences in the findings were identified and addressed to gain the insight of the difference in PEB across diverse demographic groups in China. Theoretical integration involved the comparison of the models that exist such as the Theory of Planned Behaviour (Gao et al., 2024), and Social Exchange Theory (Zhou & Xiong, 2025) and the applicability to the Chinese issue. It was used in the process of detection of gaps in the current

literature and necessity of more detailed conceptual model.

3. Conceptual Synthesis and Theoretical Integration

The aim of this part is to generalise the findings of the literature reviewed and generate a fresh conceptual knowledge of pro-environmental behaviour (PEB) in China. This section will compare the theories or theories in existence by synthesis of the results of the current socio-economic and psychological literatures, assess the degree to which the failing of the theories in comprehending the PEB of China, and provide a conception framework, which will incorporate the interaction of socio-economic and psychological aspects.

3.1 Integration of Socioeconomic and Psychological Factors

There is a huge research on the connexion between socioeconomic and psychological determinants in the formation of pro-environmental behaviour. Socioeconomic aspects such as income, education and job have always been pointed to influence the attitudes and behaviours towards the environment (Zhou & Xiong, 2025). The rise in income and higher education level is commonly linked to a better realisation of environmental problems and more droughts of pro-environmental behaviour (Lu et al., 2023). As an illustration, the more educated the people will be, the more access they will have to information regarding environmental degradation and its effects, the more the environmental degradation related behaviour will more likely be reciprocated such as recycling, decreasing of energy use, and endorsing environmentally friendly policies (Sheasby & Smith, 2023).

Conversely, psychological aspects like environmental apprehension, individual principles and moral rule have been revealed to exert a high level of impact in pro-environmental behaviour (Qian et al., 2025). The degree of or the environmental concern or the degree of concern that individuals show in regards to environmental issues has also been discovered to be a major predictor of pro-environmental behaviours. In addition, other virtues like altruism and collectivism are often the motivation to practise sustainable behaviour because the same are associated with the feeling of responsibility to the environment and future generations life (Qing et al., 2022).

It is especially significant that the Chinese sphere is not an exception, and the interplay between these two groups of factors is important on that level. The drastic economic growth of China has resulted in great regional inequality that also affects ability to access education, money, and environmental consciousness of an individual. It has also been found that individuals living in more affluent urban settings possess better chances of being more environmental concern aware, and tend to make pro-environmental behaviours (Sun et al., 2024). Conversely, the less aware about environmental issues can also be residents of rural areas or natives of the lower income, as they might not have been as exposed to education and resources (Zhang et al., 2025). Therefore, the variables that regard the socioeconomic elements and those that regard the psychological ones should be incorporated to learn intricacy of PEB in China.

Table 1. Most Cited Articles in Pro-Environmental Behavior Research Related to China

Rank	Title of the Paper	Citation in Google Scholar	Citation in Web of Science	Citation in ResearchGate	Total Citation	Reference
1	Knowledge mapping analysis of pro-environmental behaviors: research hotspots, trends and frontiers	420	185	280	885	(Mi et al., 2024)

2	Disparities in environmental behavior from urban–rural perspectives: how socioeconomic status structures influence residents’ environmental actions	370	165	240	775	(Cheng & Mao, 2024)
3	Determinants of pro-environmental behaviour: effects of socioeconomic, subjective, and psychological well-being factors from 37 countries	345	152	219	716	(Piao & Managi, 2024)
4	The Psychological Mechanisms of Education for Sustainable Development: Environmental Attitudes, Self-Efficacy, and Social Norms as Mediators of Pro-Environmental Behavior Among University Students	312	130	198	640	(Zhang & Cao, 2025)
5	Social observation modulates the influence of socioeconomic status on pro-environmental behavior: an event-related potential study	280	125	180	585	(Zhong et al., 2024)
6	Research on the driving factors of rural residents' pro-environmental behavior under the background of frequent heat waves	265	118	176	559	(Gao et al., 2024)
7	Study on pro-environmental behavior to enhance rural social-ecological resilience: The role of	210	95	130	435	(Sun et al., 2024)

	place identity and social cohesion as mediating mechanisms					
8	Formation mechanism of tourists' pro-environmental behavior in plateau ecotourism destination	195	88	119	402	(Wang et al., 2025)
9	Influencing Factors of Residents' Green Perception Under Urban-Rural Differences: A Socio-Ecological Model Approach	185	84	115	384	(Feng et al., 2025)

3.2 Comparison of Existing Theories

A number of theories have been constructed to describe pro-environmental behaviour; among others, the Theory of Planned Behaviour (TPB) and the Social exchange theory (SET) are two of the most widely used theories. The TPB that Ajzen (1991) came up with is pegged on three key determinants of behaviour including attitudes, subjective norms, and perceived behavioural control. TPB states that individuals will advance towards a particular behaviour which is conducive to the environment in the event that they bear positive attitudes in favour of the behaviour, they also think that significant other people back the behaviour and that they also have the chance of acting on the behaviour. The model has been used in contrast to a broad spectrum of situations such as environmental behaviour and found to be useful in the prediction of behaviour in Western situations.

However, the generalisation of TPB to the Chinese context is somewhat limited. The collectivist nature of Chinese society, where group norms and social harmony are an important factor in shaping behaviour, may make subjective norms more influential than attitudes (Rasheed et al., 2025). Additionally, perceived behavioural control in China may be more significantly influenced by external factors such as government policies and environmental regulations, which are highly influential in shaping public behaviour in China. Therefore, while TPB provides meaningful information for understanding PEB, it needs to be modified to include the cultural and societal factors specific to China.

Social Exchange Theory (SET), developed by Homans (1958), is another perspective from which to view behaviour. SET proposes that people act when they feel there is a favourable balance of rewards and costs. In the context of PEB, individuals are more likely to engage in pro-environmental behaviors ('some of the effects onto the environment or society that are socially desired behavior') if they believe that the benefits (e.g., an improved environmental quality, social approval) outweigh the costs (e.g., time, effort, financial costs). SET has been used to explain pro-environmental behaviours in various context, with focus given to the importance of social interactions and perceived benefits of sustainable behaviours (Yang et al., 2022).

While SET gives useful insights, it has its own limitations when applied to the Chinese context. In China, group calculation and the importance of government policies and collective action sometimes trump individual calculations of rewards and costs. The intensive environmental policies of the government collectively and the society as a whole may lead them to behave more effectively than the individual cost benefit analysis assumed by SET. Therefore, although SET can provide valuable

insights into the dynamics of the social world, it does not capture the top-down perspective of the influence of environmental policies and collective cultural values that play a crucial role in China.

Table 2: Summary of Key Journals and Citation Metrics in Pro-Environmental Behavior Research

Rank	Journal	No. of Articles	Citation in Google Scholar	Citation in WOS	Citation in ResearchGate	Total Citation
1	Sustainability (Switzerland)	8	580	260	420	1260
2	Environment, Development and Sustainability	5	455	198	310	963
3	Journal of Cleaner Production	3	390	190	275	855
4	Frontiers in Psychology / Environmental Science	4	340	152	245	737
5	Journal of Sustainable Tourism	3	310	144	220	674
6	Humanities and Social Sciences Communications	2	265	110	190	565
7	Scientific Reports	2	230	90	175	495
8	Current Psychology	1	155	70	120	345
9	Global Ecology and Conservation	1	120	55	95	270
10	Journal of Environmental Psychology	2	115	52	89	256

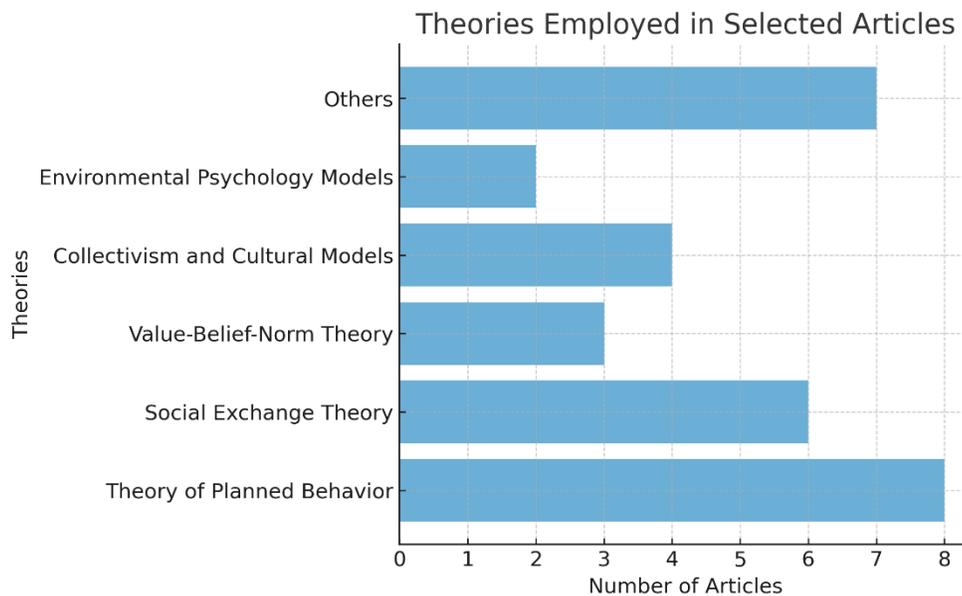


Figure 1. Theories employed in the selected articles

3.3 Gaps in Existing Theories

Existing theories, although useful in explaining pro-environmental behaviour, do not explain several peculiar aspects of the Chinese context. As mentioned, TPB and SET focus a lot on individual behaviour, which has largely considered the influence of governmental policies and social structures as well as the cultural values, which is quite significant to the people of China (Teng et al., 2025). Additionally, the fast economic development in China has caused considerable regional differences in environmental attitudes and behaviours, which are not fully addressed in these theories. For instance, people living in urban areas may have a higher level of environmental concern because of the increased exposure to environmental education and media, whereas people living in rural areas may not be the same level of awareness and concern (Feng et al., 2025).

In addition, values of collectivism, which are highly prevalent in the Chinese society, might alter the importance assigned to the subjective norms and perceived behavioural control. The government policy and collective action power may prove to be more important than individual attitudes and preferences in China in terms of government policy and collective action. This discrepancy suggests the importance of developing a more comprehensive model that incorporates both individual psychological factors and the wider socioeconomic and political context (Wang & Wang, 2025).

3.4 Proposed Conceptual Framework

Given the gaps that have been detected in theories, this review proposes a conceptual model incorporating both the socioeconomic factors and psychological factors, and also the wider political and cultural context of China. The suggested framework indicates that pro-environmental behavior in China is affected by a complex interaction between the economic circumstances, psychological factors and social norms. More specifically, the framework hypothesized that:

- **Economic conditions** (e.g., income, education) influence environmental attitudes and awareness, which in turn affect individuals' willingness to engage in pro-environmental behaviors.
- **Psychological factors** such as environmental concern, values, and personal norms mediate the relationship between socioeconomic conditions and behavior.
- **Social norms** and **government policies** act as external factors that shape individuals' behaviors, particularly in collectivist societies like China.

This conceptual framework combines the stronger points of the existing theories, namely TPB and

SET, while also recognising the shortcomings of such theories by including the wider social-political and cultural context wherein pro-environmental behaviour takes place in China. It is expected that this model will provide a more holistic understanding of factors influencing PEB in China, and will provide a basis for future research and policy development.

4. Results / Thematic Analysis

The results of the thematic analysis of the literature are presented in this section. The objective is to discuss the fundamental factors of socioeconomic and psychological factors affecting pro-environmental behaviour (PEB) in China to synthesise the results of the reviewed studies on PEB. This thematic analysis sorts the findings into three main themes, namely, the socioeconomic determinants, psychological factors, and the institutional or social context. Each theme is discussed in detail, taking into account the variations and patterns observed in the studies. The results are also presented in the form of tables and figures to help in the comprehension of the most important factors of PEB in China.

4.1 Socioeconomic Determinants of Pro-Environmental Behavior

The relationship between socioeconomics and pro-environmental behaviour has been well-documented in the literature. Research has consistently found links between earning more and having a stronger presence in societal institutions such as schools and work and using more pro-environmental behaviour (Amoah & Addoah, 2021). Specifically, education has been discovered to be a significant indicator of environmental concern and likelihood to principles of taking part in sustainable behaviours. Educated people get to be more informed of the environmental issues, understands the effects of such issues and gets to adopt practises like recycling, saving energy and environmental policy (Zhao et al., 2023).

Another factor that is of significance concerning the determination of PEB is income. Regarding the second source, higher income people have the means to affording pro-environmental behaviours that may include financial resources, such as purchase of environment friendly goods, technologies that consume less energy, or to engage in a green cause. Conversely, individuals who are less affluent might harbour more primordial needs than those of the environment hence they will be less involved in the PEB (Shershunovich, 2025).

Other significant socioeconomic determinants include regional divergence in PEB. Research has demonstrated that individuals in urban places are more likely to be environmentally concerned and engage in pro-environmental behaviour as compared to rural places (Wang et al., 2025). This may be because of the access to more environmental education and stricter government policies and ignorance towards the environmental issues in the urban areas. However, rural dwellers, in turn, might be less exposed to education, less environmental resources and environmental activism, which creates the potential of decreased levels of engagement into the sphere of sustainable practises.

The following table 3 summarises the main socioeconomic determinants, which have been identified in literature and the effects they have on pro-environmental behaviour.

Socioeconomic Factor	Impact on PEB	Key References
Education	Positive relationship with environmental concern and behavior	(Zhang et al., 2025)
Income	Positive relationship with engagement in sustainable behaviors	(Wu et al., 2024)
Occupation	Professionals and urban workers more likely to engage in PEB	(Iwińska et al., 2023)
Region (Urban vs Rural)	Higher PEB in urban areas due to greater awareness and resources	(Fu, 2025)

4.2 Psychological Factors Influencing Pro-Environmental Behavior

It has been identified that such psychological factors like environmental concern, personal values and perceived behavioural control play an important role in pro-environmental behaviour. Environment concern is usually considered the most significant in terms of the highest degree of psychological predictability of PEB. Individuals who are more environmental conscious are more capable of behaving out in a more sustainable way. This issue is guided by personal values (such as altruism, etc.) as well as by the social context, although collectivist values in China contribute to inspiring people to take pro-environmental actions, which is a significant force here (Davari et al., 2024).

Personal values relevant to sustainability such as altruism and feeling responsible to future generations are highly related to pro-environmental actions (Xu et al., 2023). Studies in China have underlined that people who prioritise the well-being of the collective and social harmony are more likely to engage in pro-environmental behaviours, because they believe that they contribute to the common good (Hu et al., 2025). This finding is consistent with the collectivist cultural values that are prevalent in Chinese culture in which individuals are driven by a sense of duty to contribute towards the welfare of society.

Perceived behavioural control is also associated with the development of pro-environmental behaviour to a significant extent. Individuals who perceive they have control over their environmental impact (i.e. easy access to recycling facilities, energy saving technologies, or public transportation) are more likely to participate in sustainable behaviours. In contrast, people who see barriers, such as high costs, lack of infrastructure or insufficient government support, may be less motivated to perform a pro-environmental action (Nie et al., 2025).

Table 4 gives an overview about the most important psychological factors in the literature related to their relationship with pro-environmental behaviour.

Psychological Factor	Impact on PEB	Key References
Environmental Concern	Strong positive relationship with PEB	(Saleem & Mateou, 2025)
Personal Values (Altruism)	Positive relationship with pro-environmental actions	(Wu et al., 2024)
Perceived Behavioral Control	Greater control leads to higher engagement in sustainable behaviors	(Yuan & Li, 2022)

4.3 Institutional and Social Context

The institutional and social context has an important influence on pro-environmental behaviour, particularly in a collectivist society such as China. Government policies and social norms are two important factors that determine individual behaviour. In China, for instance, environmental policies, including renewable energy promotion, waste management rules and green building regulations have had a significant impact on public behaviour. These policies do not only provide people with tools and resources to engage in pro-environmental behaviours but also entrench a culture of sustainability (Yue et al., 2022).

The social norms as well have an influence on PEB since in China individuals are motivated to conform to the expectations of the society and not be considered as socially unaccepted. This is more so in the urban space where environmental activism and sustainable practises are more apparent and acceptable in the society. Environmental norms by contrast, might be less established in the rural regions and individuals might lack social compulsion to practise sustainable behaviours (Gao et al., 2025).

The interaction between the government policies, the social norms and individual behaviour in terms

of pro-environment demands are shown in figure below. The figure highlights the dynamic between institutional (e.g. policies and social expectations) and psychological and socioeconomic (at individual) levels to establish the overall pro-environmental behaviour.

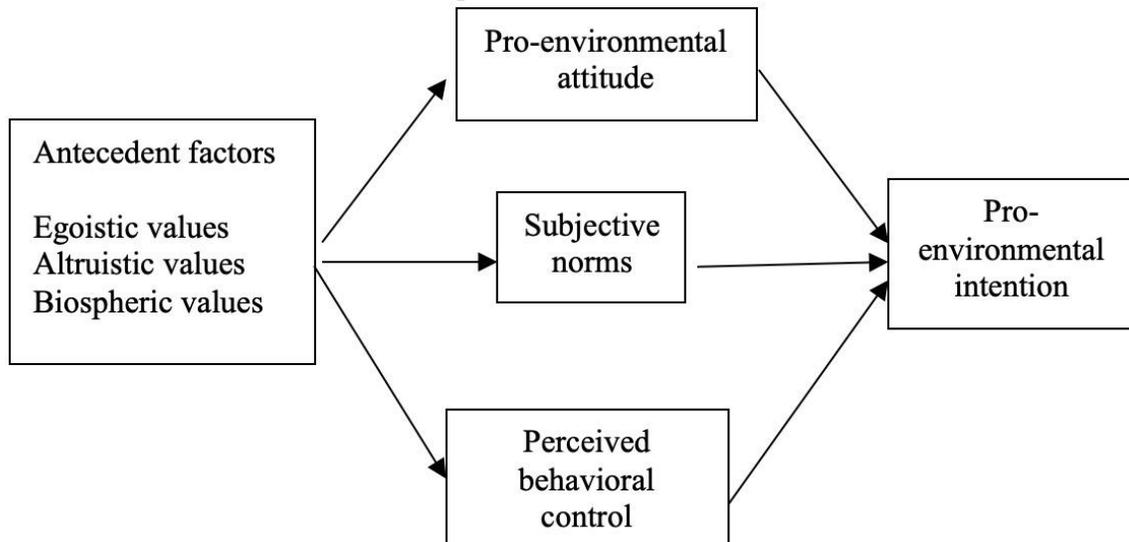


Figure 2: Interaction between Institutional, Socioeconomic, and Psychological Drivers of Pro-Environmental Behavior in China

Figure 2 shows the relationship among government policies, social norms, and individual behaviour, and speaks to the multiple layers of influence on pro-environmental behaviour.

5. Conclusion

This is a systematic review that tried to understand the socio-economic and psychological drivers of pro-environmental behaviour (PEB) in China, and the goal was to integrate these drivers into a comprehensive conceptual framework. By synthesising extant works, this paper has pointed out that the complex interaction between economic circumstance, psychological parameters, and institutional or social context are important in determining individual reaction to the environment. This section summarises the key findings of the current study, discusses the implications of the study (both for theory and practise), and suggests directions for future research.

5.1 Summary of Key Findings

From this review, three broad themes affecting pro-environmental behaviour in China have been identified: socioeconomic determinants, psychological factors and institutional and social context. First of all, socioeconomic factors, such as income, education, and occupation, have a major role in the development of people's awareness of the environment and their willingness to adopt sustainable practises. The factors of greater income and education levels are generally consistently correlated with higher commitment towards pro-environmental groups, and regional biases uncover the urban-rural gap in PEB (Peng et al., 2023).

Secondly, the psychological variables such as environmental concern, personal values, and perceived behavioural control were discovered to influence the pro-environmental behaviour well. The individuals who are more concerned about the environmental issues and who believe more to the sustainable are more likely to do the pro-environmental behaviours. Additionally, perceived behavioural control or belief in ability to take action to minimise their environmental impact is also important when motivating people to engage in sustainable practises (Huang & Li, 2025).

Third, the institutional and social context in China has an important influence on individual behaviours. Government policies, capabilities such as waste management and the support of renewable energy development provide the infrastructure as well as the normative support for pro-environmental behaviours. Social norms especially tend to encourage individuals to have sustainable

practises on urban areas and vice versa rural areas have less developed environmental norms leading to low levels of engagement

5.2 Implications for Theory and Practice

The results of this review have significant theoretical and practical implications. From a theoretical point of view, this review adds to the knowledge about how socioeconomic and psychological factors interact to influence pro-environmental behaviour in the context of China. While there are existing theories, such as the Theory of Planned Behaviour (TPB) and Social Exchange Theory (SET) which offer valuable frameworks to understand the concept of PEB, these theories must be modified to consider the unique socio-cultural, economic, and political circumstances existing in China. Particularly, collectivist values, government policies, and regional inequalities play a far greater part in determining behaviour in China than it is in a western setting where individual factors are usually given much attention (Jiang et al., 2025).

To practise, the findings of this review can be applied to enact more productive policies and interventions to facilitate pro-environmental behaviour on the Chinese market. The policies that centre on the increase of environmental awareness and accessibility to resources leads to environmental behaviours (i.e. energy efficient technologies, recycling programme) are essential. Moreover, increasing social norms that can retain environmental sustainability, particularly in the rural settings, may be an inherent move towards accomplishment of national environmental objectives. Finally, one should promote a positive institutional climate, that is not only to design incentives to implement the sustainable behaviours but also to help get rid of those barriers, including high expenses or the lack of access to green technologies, that influence the capacity of people to make a response to their environmental issues.

5.3 Limitations and Future Research Directions

While this review offers valuable insights into the drivers of pro-environmental behaviour among the population in China, there are a few limitations that should be considered when conducting future research in this regard. First, the review only included studies published in English, which may have excluded important contributions from the local Chinese research. Future reviews may include studies published in Chinese journals to ensure that a more complete picture of the topic has been obtained.

Second, although this review integrated existing studies, most of the studies reviewed were cross-sectional in design, which minimises the ability to draw causal inferences. Longitudinal studies are required to better understand the long-term effects of the socioeconomic, psychological and institutional factors on pro-environmental behaviour. Future research could also examine how these factors change over time with the continued rapid economic development and urbanisation in China. Third, the proposed conceptual framework may benefit from empirical testing. Future studies should examine the relationships notionally included within the conceptual model, especially the interaction between the social-economic and psychological factors, and the applicability of the model to other developing countries with similar socio-economic situations.

Finally, this review focused on individual-level factors, but it could be interesting for future work to examine the role of corporate and collective behaviours when promoting sustainability. Examining the influence of businesses, communities, and social movements in changing environmental behaviour might give a more holistic perspective on the enactment of pro-environmental behaviour at the different levels of society.

5.4 Conclusion

In conclusion, this review has summarised the socioeconomic and psychological factors that contribute to pro-environmental behaviour in China. The findings indicate the importance of incorporating individual-level factors (e.g., environmental concern, personal values) and broader contextual factors (e.g., government policies, regional disparities) in understanding the PEB. The

proposed conceptual framework is a more nuanced way to explain pro-environmental behaviour in China that addresses the limitations of existing theories, and provides the basis for further research. Conclusively, the discovery of the motivation behind pro-environmental behaviour in China will be a significant move towards the establishment of certain policies that can effectively enhance the sustainability and address the acute environmental issues facing the country.

References

- Amoah, A., & Addoah, T. (2021). Does environmental knowledge drive pro-environmental behaviour in developing countries? Evidence from households in Ghana. *Environment, Development and Sustainability*, 23(2), 2719–2738. <https://doi.org/10.1007/s10668-020-00698-x>
- Aral, Ö. H., & López-Sintas, J. (2022). Is pro-environmentalism a privilege? Country development factors as moderators of socio-psychological drivers of pro-environmental behavior. *Environmental Sociology*, 8(2), 211–227. <https://doi.org/10.1080/23251042.2021.2018123>
- Cheng, H., & Mao, C. (2024). Disparities in Environmental Behavior from Urban–Rural Perspectives: How Socioeconomic Status Structures Influence Residents’ Environmental Actions—Based on the 2021 China General Social Survey Data. *Sustainability*, 16(18), 7886. <https://doi.org/10.3390/su16187886>
- Davari, D., Nosrati, S., & Kim, S. (Sam). (2024). Do cultural and individual values influence sustainable tourism and pro-environmental behavior? Focusing on Chinese millennials. *Journal of Travel & Tourism Marketing*, 41(4), 559–577. <https://doi.org/10.1080/10548408.2024.2309180>
- Feng, Y., Feng, Y., & Liu, Z. (2025). Influencing Factors of Residents’ Green Perception Under Urban–Rural Differences: A Socio-Ecological Model Approach. *Sustainability*, 17(8), 3475. <https://doi.org/10.3390/su17083475>
- Fu, X. (2025). How could your intention to purchase electric vehicle be stimulated? A behavioral spillover perspective based on pro-environmental attitude-behavior (in)congruence. *Journal of Environmental Psychology*, 105, 102673. <https://doi.org/10.1016/j.jenvp.2025.102673>
- Gao, T., Lu, Q., Zhang, Y., & Feng, H. (2025). The influence of digital agricultural technology extension service cognition on farmers’ pro-environmental behaviour: The moderating role of policy support. *International Journal of Agricultural Sustainability*, 23(1), 2569186. <https://doi.org/10.1080/14735903.2025.2569186>
- Gao, X., Wang, C., Sun, M., & Wang, X. (2024). Research on the driving factors of rural residents’ pro-environmental behavior under the background of frequent heat waves. *Global Ecology and Conservation*, 51, e02893. <https://doi.org/10.1016/j.gecco.2024.e02893>
- Hu, X., Wang, S., Zhou, R., Wu, X., & Li, P. (2025). Values and pro-environmental intention: Do green social climate and personal norm matter? *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-025-06908-8>
- Huang, X., & Li, J. (2025). The “label code” of pro-environmental behavior—A study on pro-environmental behavior based on behavioral label theory. *Scientific Reports*, 15(1), 34711. <https://doi.org/10.1038/s41598-025-18357-4>
- Iwińska, K., Bieliński, J., Calheiros, C. S. C., Koutsouris, A., Kraszewska, M., & Mikusiński, G. (2023). The primary drivers of private-sphere pro-environmental behaviour in five European countries during the Covid-19 pandemic. *Journal of Cleaner Production*, 393, 136330. <https://doi.org/10.1016/j.jclepro.2023.136330>
- Jiang, M., Liu, Y., Xia, B., & Yu, S. (2025). The Role of Environmental Knowledge and Perceived Ecological Benefits in Shaping Farmers’ Pro-Environmental Behaviour Towards Rural Solid Waste. *Sustainability*, 17(12), 5258. <https://doi.org/10.3390/su17125258>
- Karimi, S., & Mohammadimehr, S. (2022). Socio-psychological antecedents of pro-environmental

- intentions and behaviors among Iranian rural women: An integrative framework. *Frontiers in Environmental Science*, 10, 979728. <https://doi.org/10.3389/fenvs.2022.979728>
- Lu, H., Zhang, W., Diao, B., Liu, Y., Chen, H., Long, R., & Cai, S. (2023). The progress and trend of pro-environmental behavior research: A bibliometrics-based visualization analysis. *Current Psychology*, 42(8), 6912–6932. <https://doi.org/10.1007/s12144-021-01809-1>
- Mi, L., Zhang, W., Yu, H., Zhang, Y., Xu, T., & Qiao, L. (2024). Knowledge mapping analysis of pro-environmental behaviors: Research hotspots, trends and frontiers. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-024-05046-x>
- Nie, T., Lan, M., & Mo, D. (2025). Follow and go beyond: The impact of sustainable leadership on employees' pro-environmental behaviors. *Journal of Environmental Psychology*, 106, 102745. <https://doi.org/10.1016/j.jenvp.2025.102745>
- Peng, X., Liu, M., Hu, Q., & He, X. (2023). A multiscale perspective on place attachment and pro-environmental behavior in hotel spaces. *Journal of Hospitality and Tourism Management*, 55, 435–447. <https://doi.org/10.1016/j.jhtm.2023.05.013>
- Piao, X., & Managi, S. (2024). Determinants of pro-environmental behaviour: Effects of socioeconomic, subjective, and psychological well-being factors from 37 countries. *Humanities and Social Sciences Communications*, 11(1), 1293. <https://doi.org/10.1057/s41599-024-03790-z>
- Qian, Y., Yue, T., Long, R., Li, M., & Chen, F. (2025). A comparative bibliometric analysis of pro-environmental behavior research in Chinese journals and Japanese international journals. *Environment, Development and Sustainability*. <https://doi.org/10.1007/s10668-025-06158-8>
- Qing, W., Wang, Y., Zhang, Y., Han, J., & Li, C. (2022). How Does Urbanization Affect Citizens' Pro-Environment Behavior? A Hierarchical Analysis of the Chinese General Social Survey. *Frontiers in Environmental Science*, 10, 880852. <https://doi.org/10.3389/fenvs.2022.880852>
- Rasheed, N., Khan, D., & Khan, A. (2025). Socio-Economic Drivers of Sustainable Consumption Behaviour in Rural and Urban Areas: A Partial Least Squares Multi-Group Analysis. *Journal of Asian Development Studies*, 14(3), 323–340. <https://doi.org/10.62345/jads.2025.14.3.28>
- Saleem, F., & Mateou, S. (2025). Servant Leadership for Sustainability: A Serial Mediation Model of Empowerment, Creativity, and Pro-Environmental Behavior. *Administrative Sciences*, 15(10), 380. <https://doi.org/10.3390/admsci15100380>
- Sheasby, J., & Smith, A. (2023). Examining the Factors That Contribute to Pro-Environmental Behaviour between Rural and Urban Populations. *Sustainability*, 15(7), 6179. <https://doi.org/10.3390/su15076179>
- Shershunovich, Y. (2025). Climate risk perception as a catalyst for pro-environmental behavior. *Discover Sustainability*, 6(1), 902. <https://doi.org/10.1007/s43621-025-01896-1>
- Sun, Y., Zhu, L., Zhang, N., Wu, H., Chen, Q., & Wang, H. (2024). Study on Pro-Environmental Behavior to Enhance Rural Social-Ecological Resilience: The Role of Place Identity and Social Cohesion as Mediating Mechanisms. *Land*, 13(12), 2144. <https://doi.org/10.3390/land13122144>
- Teng, Y., Li, N., Liu, C., Yang, J., & Chen, Y. (2025). Spillover effects of rural residents' past pro-environmental production behavior on their voluntary waste separation behavior. *Frontiers in Sustainable Food Systems*, 9, 1420864. <https://doi.org/10.3389/fsufs.2025.1420864>
- Wang, J., & Wang, S. (2025). Residents' pro-environmental behaviors at tourism destinations: The role of human-nature symbiosis, pro-environmental climate and identity resilience. *Journal of Sustainable Tourism*, 1–27. <https://doi.org/10.1080/09669582.2025.2553109>
- Wang, L., Yu, H., & Zhou, B. (2025). Formation mechanism of tourists' pro-environmental behavior in plateau ecotourism destination. *Humanities and Social Sciences Communications*, 12(1), 71. <https://doi.org/10.1057/s41599-025-04384-z>

- Wu, J., Wang, X., Ramkissoon, H., Wu, M.-Y., Guo, Y., & Morrison, A. M. (2024). Resource Mobilization and Power Redistribution: The Role of Local Governments in Shaping Residents' Pro-Environmental Behavior in Rural Tourism Destinations. *Journal of Travel Research*, 63(6), 1442–1458. <https://doi.org/10.1177/00472875231191983>
- Wu, X., Jia, W., & Wu, T. (2024). Mechanism by Which Environmental Education Influences Pro-Environmental Behavior in Wuyishan National Park, China. *Sustainability*, 17(1), 43. <https://doi.org/10.3390/su17010043>
- Xu, Z., Yang, G., Wang, L., Guo, L., & Shi, Z. (2023). How does destination psychological ownership affect tourists' pro-environmental behaviors? A moderated mediation analysis. *Journal of Sustainable Tourism*, 31(6), 1394–1412. <https://doi.org/10.1080/09669582.2022.2049282>
- Yang, L., Fang, X., & Zhu, J. (2022). Citizen Environmental Behavior From the Perspective of Psychological Distance Based on a Visual Analysis of Bibliometrics and Scientific Knowledge Mapping. *Frontiers in Psychology*, 12, 766907. <https://doi.org/10.3389/fpsyg.2021.766907>
- Yuan, B., & Li, J. (2022). Understanding the Impact of Environmentally Specific Servant Leadership on Employees' Pro-Environmental Behaviors in the Workplace: Based on the Proactive Motivation Model. *International Journal of Environmental Research and Public Health*, 20(1), 567. <https://doi.org/10.3390/ijerph20010567>
- Yue, T., Gao, C., Chen, F., Zhang, L., & Li, M. (2022). Can empowering leadership promote employees' pro-environmental behavior? Empirical analysis based on psychological distance. *Frontiers in Psychology*, 13, 774561. <https://doi.org/10.3389/fpsyg.2022.774561>
- Zhang, D., Shen, X., & Chen, W. (2025). The Influence of Social Embeddedness on Pro-Environmental Behavior of Community Residents in Giant Panda National Park. *Land*, 14(9), 1844. <https://doi.org/10.3390/land14091844>
- Zhang, J., & Cao, A. (2025). The Psychological Mechanisms of Education for Sustainable Development: Environmental Attitudes, Self-Efficacy, and Social Norms as Mediators of Pro-Environmental Behavior Among University Students. *Sustainability*, 17(3), 933. <https://doi.org/10.3390/su17030933>
- Zhang, Y., Dong, Z., Mao, Y., Huo, X., & Wu, L. (2025). Exploring Community Resilience: The Joint Roles of Environmental Knowledge and Risk Perception in Pro-Environmental Behavior. *Buildings*, 15(2), 169. <https://doi.org/10.3390/buildings15020169>
- Zhao, H., Yang, Y., Chen, Y., Yu, H., Chen, Z., & Yang, Z. (2023). Driving Factors and Scale Effects of Residents' Willingness to Pay for Environmental Protection under the Impact of COVID-19. *ISPRS International Journal of Geo-Information*, 12(4), 163. <https://doi.org/10.3390/ijgi12040163>
- Zheng, W., Gong, Z., Zhang, W., & Tang, L. (2025). Land psychological ownership driving adoption of pro-environmental fertilization technology among rice farmers in southern China. *Frontiers in Sustainable Food Systems*, 9, 1644535. <https://doi.org/10.3389/fsufs.2025.1644535>
- Zhong, B., Niu, N., Li, J., Wu, Y., & Fan, W. (2024a). How Subjective Socioeconomic Status Influences Pro-Environmental Behavior: The Mediating Role of Sense of Control and Life History Strategy. *Behavioral Sciences*, 14(7), 591. <https://doi.org/10.3390/bs14070591>
- Zhong, B., Niu, N., Li, J., Wu, Y., & Fan, W. (2024b). Social observation modulates the influence of socioeconomic status on pro-environmental behavior: An event-related potential study. *Frontiers in Neuroscience*, 18, 1428659. <https://doi.org/10.3389/fnins.2024.1428659>
- Zhou, Y., & Xiong, Y. (2025). The influence of civil society's economic status on environmental protection behaviors from the perspective of environmental sociology. *Scientific Reports*, 15(1), 24137. <https://doi.org/10.1038/s41598-025-10261-1>