

Exploring the Potential Application of Chinese I Ching Philosophy in Guiding the Formulation and Implementation of National Sustainability Policies

Meiling Xu¹

¹ University of York, United Kingdom

Correspondence: Meiling Xu, University of York, United Kingdom.

doi:10.56397/JRSSH.2024.11.03

Abstract

This paper examines the relevance of applying the Chinese I Ching philosophy when developing and employing national sustainability policies. Using multiple perspectives in the study context, the author analyses how the guiding principles of the I Ching, including 'harmony', 'flexibility', and 'holistic thinking', effectively address modern sustainability issues. In this paper, the literature review examines the benefits and challenges of incorporating traditional knowledge in policymaking while comparing case studies to successful policy implementations. Possible applications of introducing the I Ching philosophy into the tenets of national sustainability are considered in terms of system transformation. Due to these realistic considerations deriving from the sociotechnical matrix formed by human beings and natural environments, I Ching-based policies could contribute to long-term resilience, equity, and environmental sustainability in the global society.

Keywords: I Ching, sustainability policies, ancient wisdom, harmony, adaptability, holistic thinking

1. Introduction

1.1 Background

Sustainability policies have become a centrepiece of the architecture of international relations as nations grapple with the urgent environmental, social, and economic challenges of the twenty-first century. The United Nations Sustainable Development Goals (SDGs) are an agenda for development adopted in 2015 to tackle various challenges, such as poverty and environmental degradation, for a sustainable future by 2030 (United Nations, 2015). These are a set of objectives, such as combating climate change, building resilient communities and

cities, and improving resource productivity in economies and consumption. However, in many countries, there are challenges in implementing sustainable policies and measures most effectively and efficiently because of the various factors associated with the state's economic development, nature conservation, and enhancement of social justice (Hák et al., 2016).

Thus, it would be worth considering various and perhaps more useful paradigms of philosophical reflection to consider the problem of sustainability and solve the required policies. I Ching is another model that originated in China several thousand years ago and is the foundation of the Chinese civilization and its

strategic division. The mystery book from ancient China, known as the I Ching or the Book of Changes, is one of the classical works that, in its attempt to understand the world and the place of man in the cosmos, pertains to the principles of yin and yang of existence and the theory of five elements (Fung, 1948).

According to the I Ching philosophy, harmony, balance, and adaptability are vital concepts that apply to the context of contemporary sustainability policy (Smith, 2012). By applying these principles, policymakers may improve the functions and sustainability of the strategies to respond to various demands and follow core laws in society. This paper seeks to find out the applicability of the principles derived from I Ching when it comes to formulating and implementing national sustainability policies to fill the explored gap of the relation of traditional Chinese texts such as I Ching to modern-day governance issues, including sustainability policies.

1.2 Research Problem

While sustainability has become a global priority, contemporary politics still need to consider the possibilities of traditional wisdom. It has become evident that most sustainability policies are anchored on modernistic scientific and economic paradigms. Although these are crucial, they do not encompass the systems and systemic thinking required for sustainability (Swart et al., 2004). Ancient cultures, for example, the Chinese, have pondered complex questions on the nature of the universe through the Analysis of the I Ching: a book with precious guidelines concerning balance, rhythm, and flexibility, principles so relevant in facing global environmental and social issues at present (Chan, 2008).

The gap relates to the need for more needful application of these ancient philosophies in the current policy arguments. Closing this divide may improve the extent and quality of sustainability policies through improved analysis of human-environment interfaces and the promotion of scientifically, culturally, and ethically desirable policies. This paper aims to fill this gap by examining how I Ching's theories can be adopted in constructing and executing sustainability policies at the national level.

1.3 Research Aims

To explore how I Ching philosophy can inform and enhance sustainability policies, this paper

aims:

- To explore the components of I Ching, including harmony, balance, and adaptability, and investigate whether such components are relevant to the current sustainability issues.
- To develop policy paradigms for applying I Ching concepts to the design and management of sustainable development strategies at the national level.
- To assess the advantages and limitations of the I Ching philosophy in sustainability policies by comparing experiences or narratives.

1.4 Research Questions

- What principles of I Ching are relevant to sustainability?
- How can these principles be practically applied in policy-making?

2. Literature Review

2.1 Sustainability Policies: An Overview

2.1.1 Global Sustainability Goals and Frameworks (e.g., UN SDGs)

Sustainability policies have become a much-needed endeavour to address the multiple and interrelated issues affecting our planet, including climate change, environmental degradation, social injustice, and economic vulnerability. Standing out to meet these challenges is the United Nations Sustainable Development Goals (UN SDGs), which are 17 interconnected goals that member states signed in 2015 (United Nations, 2015). These goals act as a roadmap towards sustainable development, which is more of a context for development that aims to enhance quality value across all three facets of development: the social, economic, and environmental spheres.

The UN SDGs encompass poverty, hunger, health, education for all, women's rights, availability of clean water and sanitation, clean and accessible sources of energy, decent employment and economic growth, technological advancement and industrialisation, equality, sustainable communities, responsible consumption and production, the climate change cause, ocean preservation, land conservation, peace, justice and strong institutions, and international cooperation (United Nations, 2015). It is defined

for each goal and the corresponding aims and markers to track progress, establishing a path for implementation at the international, regional, and state levels.

UN SDGs have shifted global development paradigms, raising awareness about the interrelatedness of social, economic and environmental domains and calling for more holistic and innovative approaches to sustainable development. Thus, the SDGs are broadly conceived and require addressing the economic, social, technological, environmental, and organisational contexts that give rise to sustainability issues and foster systemic change in multiple domains and levels of society (Visbeck & Ringler, 2016).

Besides the UN SDGs, other regional and national sustainability frameworks have been established to support policy and action. For instance, more recently, the European Union has had the European Green Deal, which outlines a path toward ensuring the EU economy is green and sustainable by transforming climate and environmental concerns into opportunities (Fetting, 2020). Likewise, Sweden and New Zealand have implemented elaborate national sustainability plans under which environmental, social, and economic goals are aligned and implemented systematically (Romsonn & Forsbacka, 2020; Daysh et al., 2020).

However, even with the effort being employed, implementing and enforcing efficiency policies is more complex. Development goals challenge financing, institutions, and politics in the implementation processes, and many nations are grappling with translating globally signed commitments into realities and actions (Hirai & Comim, 2022). Furthermore, the recent COVID-19 outbreak has exposed other underlying risks and underlined the importance of preparedness and flexibility when dealing with global emergencies (Conceição, 2020).

Therefore, it is critical to revisit and reaffirm the fundamental concepts of sustainability policies, such as the UN Sustainable Development Goals and other global initiatives that help direct global action toward achieving a better, more sustainable future for all. Nonetheless, to support sustainable development, international cooperation should be combined with active actions at the national and local levels, as well as new ideas that consider the principles of interdisciplinarity and systemic change.

2.1.2 Challenges in Current Sustainability Policy Implementations

Applying sustainability policies and ensuring compliance with established goals requires overcoming a number of challenges explained by various socio-economic, political, and environmental factors. While there are indeed robust mechanisms like the UN SDGs and national policy agendas, converting policy expressions into impacts poses a challenge. This section considers a few of the most significant difficulties within the provision of sustainability policies.

Another issue is that tasks and duties are dispersed, and there needs to be centralised cooperation between governmental and non-governmental institutions, international organisations, NGOs, private companies, and other stakeholders that deal with climate change issues (Biermann et al., 2009). Concerns such as sustainable development are interdisciplinary and usually part of several fields of study, e.g., energy and climate change, transportation, agriculture, and urban planning. Nevertheless, policies may be fragmented due to the division of responsibilities between different organisations and agencies; these institutions may prioritise their agendas over policy implementation and formation.

One of the major challenges attributed to sustainability policies revolves around the limited financial capacity within most developing countries (Cleaver, 2017). Realising sustainable development measures entails significant expenditures for the creation of structures and processes, equipment, training, and research, which may eventually become more attainable due to pressing funding exigencies. Furthermore, the unpredictability of funding and shifting priorities threaten to weaken the sustainability agenda by compromising its lasting nature and continuity.

The two essential pillars influencing the success of sustainability policies are political will and leadership at the national and global levels (Bäckstrand & Kuyper, 2017). Nonetheless, political factors, such as partisan politics, the focus on the next elections, and the interest of certain elites, act as brakes and halt or reverse positive change. Efforts to eliminate resistance to change and make reforms sustainable require strong leadership and continuity of effort.

The validity and appropriateness of

sustainability policies depend on proper stakeholder management and involvement (Reed et al., 2006). Nonetheless, minorities, indigenous, and other vulnerable communities are unable to participate in decision-making making, hence the continuation of inequalities and erosion of social capital. It means establishing a trusting relationship, encouraging a conversation involving various stakeholders, and providing for the latter to have a say in how policies are set and to be involved in policy-making and enforcement.

Consequently, it is pivotal to establish substantial data collection, monitoring, and an evaluation system to measure progress toward sustainability targets and evaluate the impacts of policy measures (Loorbach & Rotmans, 2010). However, to diagnose the themes, gaps, and priorities, adequate ratings or data systems are often needed in many countries to assess the performance of sustainability milestones. Improving the data systems and enhancing the surveillance and monitoring systems are vital elements of any policy because decision-makers require evidence to support their actions and to be able to account for what has been done.

2.2 *I Ching Philosophy: Key Concepts*

2.2.1 Historical Background of I Ching

The I Ching, or the “Book of Changes,” is one of the oldest and most significant Chinese texts, with a history that dates back over three millennia (Jung et al., 2011). From a historical perspective, it derives from ancient Chinese divination methods that employed hexagrams to decode phenomena in nature and foretell the future (Lynn, 1994).

The origin of the I Ching dates back to the Western Zhou dynasty (1046–771 BCE), and the book was traditionally ascribed to Fu Xi (Wilhelm & Baynes, 1967). Through the ages, it was modified and commented on; however, the most popular interpretation is the “Ten Wings” that Confucius and his followers added during the Warring States period (475 B.C.–221 B.C.) (Legge, 1963).

Central to the philosophy of the I Ching are several key concepts that shape its understanding of the world and human existence:

(1) Yin and Yang: The Yin-Yang theory can be regarded as the base of the concepts of dual and mutual opposition in life. Yin is associated with

darkness, receptiveness, and femininity, while Yang is associated with light, initiative, and masculinity (Wilhelm & Baynes, 1967). This means that Yin and Yang operate in a cycle where they complement one another to harmonise certain natural occurrences or processes.

(2) The Five Elements: The I Ching divides attributes or phenomena of the natural world into five groups of elements: wood, fire, earth, metal, and water, each with particular characteristics (Wilhelm & Baynes 1967). These elements also influence and change following cyclic personality owing to the forceful drivers of the universe.

(3) Hexagrams: The I Ching is comprised of 64 graphical figures called hexagrams. Each hexagram consists of six lines that can be solid (Yang) or broken (Yin), signifying varying configurations of Yin or Yang energy (Wilhelm & Baynes, 1967). Following each hexagram, there is an explanation or general commentary regarding different aspects of life dynamics and how one should respond or act depending on the circumstances.

(4) Change and Transformation: Fundamental to the I Ching worldview is the idea of shape or transformation that is inherent, irreversible, and necessary (Lynn, 1963). The theory completely dispels the culturally ingrained view of change as a negative factor or as evil, which is actually not the case because change is natural and should be embraced.

(5) Holism and Wholeness: One of the greatest value perspectives one can learn from the I Ching is the unity of the cosmos and the understanding of the value of the whole world (Wilhelm & Baynes, 1967). In their view, the I Ching fosters a ‘third way’ or paradigm that does not subscribe to the original four paradigms and aims to combine the opposing paradigms into one.

Therefore, the I Ching philosophy provides a deep and complete perspective on the world, people, and beneficial interactions in the universe. Originating from the ancient Chinese civilisation, truths remain relevant to this day and can help spiritual seekers and those who wish to abide in harmony with the processes unfolding in the Universe.

2.2.2 Core Principles of I Ching Philosophy

Yin and Yang are principles or energies that

form part of Chinese cosmology and philosophy, whereby everything exists in mutually dependent pairs (Kaptchuk, 1986). Yin represents things such as negativity, passiveness, and femaleness, while Yang defines positive things such as positivity, action, and maleness. According to Wilhelm and Baynes (1967), all occurrences derive from the interplay of Yin and Yang and explain the dynamic processes, such as the cycle of change and transformation in the natural world. I Ching's philosophy states that equilibrium and harmony are obtained from the interconnection between Yin and Yang forces. This means that if there is the slightest distortion of such a balance or harmony, actions and attitudes may conflict, which underscores the need to foster an understanding of and be in tune with a given nature (Karcher, 2000).

The Five Elements, which are the wood, the fire, the earth, the metal and the water, are yet another structure of I Ching cosmology and are used to explain the interaction between different structures of nature (Huang, 2010). Each corresponds to qualities, directions, seasons and colours that point to their various forms and interactions. Despite the Five Elements being closely associated with the I Ching, they are not considered by its system strictly as objects but rather dynamic processes that involve cyclical change with characteristic patterns of creation and destruction (Huang, 2010). For instance, wood creates fire, fire creates earth, earth creates metal, metal creates water, and water creates the Wood, forming what is referred to as the "Products Cycle".

The hexagrams are the graphical or picture components of the I Ching; each hexagram must consist of six lines containing either Yin or Yang energy in proportions (Wilhelm & Baynes, 1967). The 64 hexagrams gather various paradigms of the interpretative types of hexagrams regarding the numerous possibilities of the operation of the two basic principles — Yin and Yang. For every hexagram, there is a detailed textual explanation of events in the configurations and an interpretation of how the events in the hexagram could be understood (Wilhelm & Baynes, 1967). People practice hexagrams to understand revelation and learn how to live and approach life circumstances.

The foundation of the I Ching outlook consists of three principal concepts, namely Yin and Yang, elements, and hexagrams. Students obtain a profound worldview that provides a

perspective of balance and cyclical transformation of all phenomena (Lynn, 1994). As specific methods of gaining insight, reflection, and orientation in the multifaceted relationships of practical action, these principles serve as guidelines for attuning oneself to the cycles of the cosmos.

2.3 *I Ching and Environmental Ethics*

2.3.1 Comparative Analysis of I Ching Philosophy and Modern Environmental Ethics

Written over two and a half millennia ago, the I Ching, or the "Book of Changes," is a Chinese text that imparts wisdom about the balance of human beings and nature as a philosophical cornerstone for environmentalism. This part examines the relationship between I Ching's philosophy and today's environmental moralities and their similarities and differences regarding certain aspects.

There is an intrinsic appeal to the spirituality that pervades the I Ching and contemporary environmental ethics: fundamentally, one must recognise the equality and interconnectivity of all things in existence (Hamil, 2007). According to the I Ching, the universe and everything in it are composed of Yin and Yang, two opposing forces inherently linked and bound together. In contemporary environmentalism, there is also an emphasis on nature being good in itself, and efforts must be made to keep ecosystems as natural as possible (Leopold, 2014).

The two central philosophical tenets mentioned above are all workable guidelines when considering ethics environmentalism, and I Ching philosophy is not an exceptional category in this regard. The I Ching states that people are attuned to the natural world and begin to act harmoniously to create a more simplistic respect for life (Wilhelm & Baynes, 1967). This view aligns with the integrated approach to contemporary environmentalism, which advocates for the sustainability of ecosystems and their components (Naess, 2017).

Furthermore, the I Ching provides practical advice on ethical dilemmas concerning environmentalism through hexagrams and the attached textual annotations. Through the I Ching, a person can get a sense of the possibilities arising from a specific action and the potential of a respective reaction to the environment (Wilhelm & Baynes, 1967). This approach is especially appropriate in today's world as a part of environmental ethics, where

one of the main principles is the analysis of the consequences that affect the environment and, consequently, future generations (Sagoff, 2007).

However, I Ching's philosophy and modern environmental ethics have significant differences and similarities. The first significant difference is that each form has been rooted in different historical societies and periods. I Ching is acknowledged to have originated in the ancient culture of China, and it has a profound relation to the cosmological perceptions and ethics of that era (Wilhelm & Baynes, 1967). Unlike post-classical environmental ethics, modern environmental ethics has been developed within the parameters informed by Western philosophy and aesthetics with the help of influential pioneers such as Leopold (2014) and Carson (1962).

Another notable distinction is the different ethical foundations that are intrinsic to the two systems. Whereas the I Ching focuses on developing a gentlemanly character and living by the principle of qi, contemporary environmental ethics tends to use a militant conception of right or a utilitarian rationale of rational justification (Sagoff, 2007). For instance, Taylor (2011) pointed out that environmental ethicists may claim that there is a utility in conserving species, which is a matter of either their intrinsic worth or the roles they play in the welfare of everyone.

Moreover, the I Ching, as a cosmological system, bases its reasoning on the assumption of the interdependence of all things, and this distinguishes it from the anthropocentric outlook adopted in most Western ethical theories (Taylor, 2011). However, despite the current attempts to develop environmental ethical frameworks that accept non-humans as ethically relevant, biases exist, and there is a tendency to prioritise human and human interests more than anything (Singer, 1979).

However, one can discover much in common by examining and comparing China's I Ching philosophy and the West's modern environmental ethics. Comparing and contrasting these two traditions fills the blank spaces to gain more comprehensive meaning and knowledge towards solving ethical issues on human-nature relationships and sustainable, eco-friendly approaches.

2.4 Previous Research

2.4.1 Studies Integrating Traditional

Philosophies in Modern Contexts

Prior research has explored how and to what extent old age knowledge systems such as the I Ching are being adopted into the present age to dissect the prospects of introducing ancient knowledge in the modern world and life. This also contains an understanding of sufficient research in this area, a critical evaluation of these works and an assessment of theoretical and practical findings to consider the part that traditional philosophies could play in addressing current socio-ecological issues.

Li et al., (2017) in their study explained the applicability of I Ching principles in the present-day context as applied to the planning and designing of cities presently that employ or utilise the Chinese cosmological idea of the sustainable development of the world at large, which can benefit the urban world today. In parallel with the theoretical framework of Yin and Yang, the study suggested the theory that encapsulates concrete measures of macro and micro environments in urban planning for sustainability. The authors demonstrated how this philosophy of the I Ching could be used to build sustainable cities by presenting a case of how the guidelines would be implemented and by creating a sample design based on the guidelines derived from the ancient text of the I Ching.

Similarly, Zhang and Fon Foo (2012) discussed the relevance of I Ching to managerial work and leadership in organisations, endorsing factual Chinese wisdom as being potentially useful to contemporary business. Consequently, using hexagram interpretations to identify and discuss practical organisational concerns identified in the present study can contribute to accounting for the possibilities of developing organisational coherence, creativity and ethical leadership in diverse settings. This means that organisations can supplement traditional management frameworks with priceless beliefs in the enhancement of organisational wellness.

Another area that has been applied is the I Ching to modern environmental concerns as it has general applicability to management since it is based on philosophical principles. For example, Wang et al., (2020) explored the connection of the Five Elements with the ecological context of China. For the evaluation, they identified the values and applications of wood, fire, earth, metal, and water elements in

ecological inner-city spaces in the field of restoration and biological variety. Specifically, the study proposed a novel practical framework for the management of sustainable habitats that includes peoples' cultural attitudes toward their surroundings as well.

Apart from such investigations, theoretical models have been advanced to understand better the link between philosophies of the past and the present world. In light of the historical materialism of East Asian civilisation, Chin et al., (2022) advance an integrative model of sustainable development based on the principles of Yin and Yang, postulating that all three aspects, namely, the economic, the social, and the environmental, are complementary and require equal attention in order to ensure sustainability. Based on the concept of comprehensive harmony of I Ching philosophy, integrating ecological economics and system theory viewpoints, the model is constructed to enhance understanding of sustainable development beyond the boundaries of disciplinary specialty.

In recent years, there has been a burgeoning focus on applying traditional ideas in various forms of modern society; however, there are some problems and drawbacks. Another issue is that when the capitalist structures of the West try to incorporate the spiritual wisdom of the East, they tend to transform it according to media standards while undermining the original context (Agada & Van Norden, 2021). Promising a civilised interaction with Traditional Knowledge and mutual conversation with various cultural practices are critical to the positive operation of cross-cultural engagement.

The reduction of traditional philosophies into practice in the current society might be more complex than in the past, and this calls for an emphasis on the need to consider modern society and ways that would effectively deal with present challenges. Although elderly teachings can provide a rich source of timeless principles of interconnectivity and reciprocity, these philosophical and mystical precepts blended with religious elements must be backed by scientific research and practical problem-solving strategies regarding modern socio-environmental challenges (Li et al., 2017).

Overall, the literature review on integrating traditional philosophies in innovative settings presents several positive impacts and sometimes

conflicting ideas about how traditional knowledge can be of use in contemporary approaches. Inspired by I Ching's philosophy, ecological, organisational, and societal aspects have now been researched to reveal new possibilities for the sustainable development of a culture. Thus, the further development of cross-disciplinary and cross-cultural studies should become the key priority, and further cooperation should be made to engage the potential of traditional knowledge systems for handling global problems and succeeding in a changing world.

2.4.2 Case Studies on I Ching Applications in Various Fields

Many texts about the use of the I Ching focus on its relevance to different areas, as proven by bibliographic materials. Thus, plenty of examples of how the I Ching can be helpful to modern people can be found. This section gives an overview of case studies indicating how the I Ching may be used in various fields: health and medicine, business and finance, ecology, and self-improvement.

A blatant example is the I Ching, which was incorporated and proved relatively efficient in the medical field as a clinical decision-support system. Matos et al., (2021) described a case study in which six TCM practitioners diagnosed and treated 28 chronic illness patients using consultations and assessments based on interpretations of the I Ching hexagrams. I Ching can introduce new dimensions of treatment that will preserve the patient's individuality and can contribute to a high rate of satisfaction and recovery.

Applying the I Ching approaches in business management has been illustrated through various case studies that demonstrate how organisations can strengthen themselves through them. For instance, Wong and Yau (2023) explored a longitudinal case study of a multinational company that incorporated I Ching-based leadership development programs to cultivate an innovative organisational culture and resilience. Developing these strategies and employing the reflective activities within the frame of the hexagram allowed the persons to learn the needed skills and attitudes in order to operate successfully in the uncertain and complex people business environments.

Therefore, the application of the I Ching philosophy has enhanced the area of

environmental conservation. Lui (2005) embarked on a study to determine the feasibility of carrying out ecological restoration with the help of I Ching in order to enhance the development of the ecosystem and, therefore, the conservation of biodiversity. Through the incorporation of the philosophical concepts of Yin and Yang, the Five Elements, and hexagrams into the planning and implementation of restoration, the conservation practitioners gained improvements in the condition of the ecosystems of concern and their preservation.

Also, the literature and case reports have investigated the application of the I Ching for self and spiritual growth and outlined the enhancement of the physical, emotional and psychological well-being of the practitioners. For example, Lam and Chin (2007) conducted a quantitative study on individuals who often consult the I Ching, an oracle, for guidance in their lives. During the interviews and the broader and more open discussion that followed the hexagram consultation, all of them mentioned receiving light, gaining insight, as well as gaining emotional strength from doing I Ching consultation, responses that illustrate how this method can be useful when working with clients in therapy.

Besides the business scene and arts, Chinese philosophy has also been applied to urban planning and design. In the same regard, Li et al., (2017) sought to explore the relevance of applying I Ching to achieve a sustainable future in urban development by exploring how I Ching's principles could be used to create harmony between Yin and Yang in the planning of cities. The urban planners incorporated specific diagnoses and functioning that moderated the social capacity and activities by engaging the stakeholders and building the deep populations with hexagrams associated with the missing cases. They developed a stockpile they needed to boost the health and sustainability of people and the environment on this Earth.

3. Research Methodology and Ethical Considerations

3.1 Research Design

This study's research method is qualitative, with an emphasis on interpretative analysis of I Ching texts and case approaches to real-life applications.

3.1.1 Qualitative Approach: Interpretative

Analysis of I Ching Texts

The qualitative research approach entails studying the I Ching texts to understand the philosophical concepts and actual knowledge they present. Interpretive research seeks to understand the significance of concepts related to Asian philosophies like Yin and Yang, the five elements, and hexagram orientations. It also benefits our present institutions when practising I Ching's philosophy because it provides a detailed explanation.

3.1.2 Case Study Method for Practical Applications

Besides the textual analysis, this study utilises a case study approach to analyse how I Ching's philosophy may be applied in practice in healthcare, business, environment sustainability, and individual well-being. Case studies introduce practical applications of I Ching in different fields that can contribute to understanding the benefits and possible issues with its application. In research, patterns, efficient application of I Ching philosophy, and distaste learned are realised when engaged researchers look at courts of statesmanship.

This research design enables a rich investigation into the I Ching philosophy and its relevance in modern society using empirical and theoretical frameworks. Based on the qualitative approach, the current research further discusses the phenomenon of applying traditional knowledge in the modern world.

3.2 Data Collection

3.2.1 Primary Sources: Classic I Ching Texts

The primary sources for this work include the original Chinese texts of the I Ching and translations of those texts. These texts form the basis of I Ching's philosophy and practice; they give an idea about Chinese philosophy and practical knowledge of ancient Chinese civilisation. Scholars will code these primary documents qualitatively to identify relevant content for the study goals by considering concepts, symbols, and text meanings.

3.2.2 Secondary Sources: Academic Papers, Policy Documents

Articles from peer-reviewed journals, published research papers and journals, and policy briefs will also be used to support the study. Peer-reviewed articles provide academic viewpoints and interpretations of I Ching and its interpretations from various disciplines such as

philosophy, psychology, and anthropology. These sources can be found in government documents, organisational manuals, or business strategies and policies. I Ching serves as a tool for establishing the principles for the creation of sustainability policies and design of cities or other areas. These sources offer contemporaneous attitudes toward I Ching philosophy and its relevance today: the primary sources, as mentioned above, offer a basic understanding of the subject.

3.3 Data Analysis

3.3.1 Thematic Analysis to Identify Relevant I Ching Principles

Being qualitative research, this study shall employ thematic analysis to analyse the relevant principles from the I Ching primary and secondary sources that shall be used in this study. This relates to encoding and tagging text data to identify patterns and ideas about the philosophy of I Ching. The researchers will also scrutinize I Ching texts, academic papers, and policy documents; moreover, the essential principles such as Yin and Yang, the Five Elements, the symbolism of hexagrams, and their interpretations will be defined. In this study, the researchers want to identify all the aspects of truth illustrated in the selected texts of the I Ching philosophy, as indicated by the research questions.

3.3.2 Application Framework Development

According to the thematic analysis, an application framework will be developed to provide a protocol for how the I Ching application could be practically implemented in different parts of society. This framework will integrate the identified principles into a framework that will likely be used to solve unique problems or capitalise on unique opportunities in health care, business management, environmental conservation, urban planning, or personal development. It will provide core concepts, impressions, and ideas about applying the I Ching philosophy in practice and modern environments, supported by Western and Eastern approaches.

Defining the application framework will involve multiple cycles of refinement and validation through communication with domain specialists. This way, the researchers will engage a diversity of practitioners, scholars, and stakeholders from related fields to confirm the applicability and usefulness of the proposed

framework to address the present reality's demands and issues. This line of reasoning is designed to counteract the criticized need that was found in the text of I Ching to apply the provided guidance to contemporary issues by offering concrete instructions to do so for those who are interested in receiving such guidance.

This study aims to establish connections between I Ching principles and usage in various spheres of life and contribute to the elaboration of concrete recommendations that help people and organisations unleash I Ching's latent possibilities in practice.

3.4 Ethical Considerations

3.4.1 Respect for Cultural Heritage and Intellectual Property

Regarding aspects of cultural regimens and other related features of cultural properties, ethical considerations must be made when researching I Ching's philosophy. It is also essential for scholars to identify the purpose and value of the I Ching texts and traditions that are connected with this concept, as well as cultural history. However, the references to other credit to scholars and translators who attempted to gather the I Ching across the centuries cannot be overlooked.

3.4.2 Ensuring Academic Integrity and Transparency

It is essential to ensure honesty and credibility from the proposal stage of research to the final report. It is important to address ethical considerations when conducting research since they are provided by the institutions conducting research and by professional bodies. This includes correctly reporting results, declaring interest or prejudice, and replicating the study methodology and results. In this way, honesty, objectivity, and accountability principles can help the researcher build knowledge, confidence, and credibility within the academic society.

4. Results and Discussion

4.1 Identified I Ching Principles Relevant to Sustainability

The thematic analysis established the emergence of the following I Ching principles: These principles are insightful in explaining how advanced ideas of the past can be applied to modern solutions of environmental conservation, social justice, and economic progress. This section explores three central

principles: Harmony and balance, adaptability and change, and holistic thinking, which are critical elements in this type of worldview.

4.1.1 Harmony and Balance

The I Ching's beliefs revolve around harmony, regularity, and equal measure, advocating for human activities to be synchronised with the natural way of life. The I Ching suggests that perpetuating excessive Yang or yin leads to oppression and conflict situations (Wilhelm & Baynes, 1967). From a sustainability point of view, this principle emphasises rational and sustainable utilisation of resources based on fairness and environmental carrying capacity.

For instance, the practices of sustainable agriculture seek to recover the disturbed equilibriums through the reduction of chemical inputs, protection of soil and water, and improvement of species diversity (Altieri, 2018). Therefore, if the farmers are to adopt I Ching and other non-mechanized forms of planting, such as those recommended in this book, they can develop several systems of production that can feed the world and its people without adversely affecting the health of the planet in the long run.

4.1.2 Adaptability and Change

Secondly, the I Ching perceives the world as dynamic, meaning it can change over time. It considers the external environment dynamic

and, therefore, can support dynamism. The I Ching identified flexibility, anticipatory thinking, and change orientation as the essential components for appropriating change, as highlighted by Wilhelm and Baynes (1967). In the context of sustainability, it is on the capacity for change in the work of the management system in light of shifts in environmental conditions, the management system, and society's needs.

For instance, practically oriented conservation strategies involve initiatives such as community-engaged conservation processes, which employ adaptive management methodologies to deal with complicated and ever-evolving conservation challenges (Berkes, 2009). Thus, the I Ching framework is useful for community members' engagement in decision-making processes that produce place-based management solutions based on classical instinctive knowledge and modern scientific findings. According to Folke et al., (2005), a good illustration of this is the transformation towards adaptive management of the wetland landscape in southern Sweden led by leaders who provided vision and direction, promoted learning and knowledge sharing, and strengthened and expanded social networks (Figure 1). This prepared the social-ecological system for change when the opportunity arose.

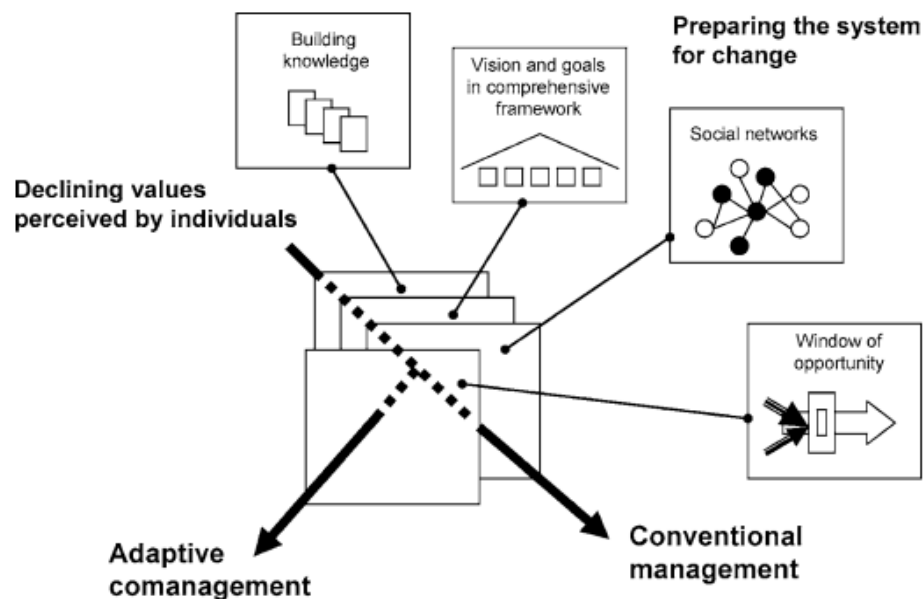


Figure 1. Transition towards flexible co-management of the southern Swedish wetland ecosystem
Source: Folke et al., (2005).

4.1.3 Holistic Thinking

The idea of wholeness is inherent to the principles of I Ching as the components of the whole are seen to be interrelated and interdependent. According to Wilhelm and Baynes (1967), the I Ching posits that understanding wholes is more significant than understanding components of a system, not to mention meaningful change. In the consideration of sustainability, this principle maintains the tenet of systems integration for embracing sustainability in social, ecological and economic aspects while achieving its goal.

Sustainable urban development strategies seek

to establish urban systems that are sustainable, integrated, and resilient to adversity and shocks. Urbanists employing holistic thinking derived from the I Ching can strategically organise life-fulfilling environments that are environmentally sustainable, thus effectively supporting quality of life (Beatley, 2012). For instance, using a matrix of twenty elements, Leicester created an innovative Sustainability Appraisal (SA) and applied it to the evaluation of its local plan. The SA evaluates each main plan policy and proposed development locations.

Table 1. Commentary on the Impact of the Proposed Housing Development at Hamilton (H1[a]), Leicester

| <i>Sustainability Impact Criteria</i> | <i>Impact</i> | <i>Commentary</i> |
|--|---------------|--|
| QUALITY OF LIFE AND LOCAL ENVIRONMENT | | |
| 1 Open Space | + | Opportunities to provide new public open space within development. |
| 2 Health | - | Emissions from new traffic. |
| 3 Safety and Security | | Covered by other CLLP policies. |
| 4 Housing | ++ | Meeting identified housing needs of City. |
| 5 Equity | + | Range/mix of housing together with ancillary community facilities. |
| 6 Accessibility | + | Urban fringe location currently not well served by public transport. Still transport choice location. |
| 7 Local Economy | | |
| 8 Vitality of Centers | + | Additional housing will support Hamilton District Center facilities. |
| 9 Built Environment | + | High-quality design could contribute to appearance of development. |
| 10 Cultural heritage | | |
| NATURAL RESOURCES | | |
| 11 Landscape | - | Loss of open countryside, but structural planting often an important predevelopment feature. |
| 12 Minerals | | |
| 13 Waste | | |
| 14 Water | - | Possible disruption to existing ground water/drainage, etc. |
| 15 Land and Soil | - | Loss of agricultural land. |
| GLOBAL SUSTAINABILITY | | |
| 16 Biodiversity | - | Loss of natural habitats (greenfield site), but new development will create parkland and water settings. |
| 17 Movement | - | Increased use of private car due to peripheral location. |
| 18 Transport Mode | - | As above. |
| 19 Energy | ? | Depends on detailed layout. |

Source: Beatley, 2012.

Thus, the principles discovered in the I Ching, such as Harmony and balance, adaptability and change, and Holistic thinking, provide insights as to how ancient knowledge can enrich the modern concepts of sustainability policies and practices. Through the incorporation of these principles into policy-making processes, leaders, workers, families, and society can enhance the provision of sustainable solutions in mitigation and adaptation to the effects of climate change. Therefore, more studies and cooperation should be established to apply the I Ching philosophy in numerous sectors and to enhance the sustainability processes worldwide.

4.2 Framework for Applying I Ching in Policy Formulation

4.2.1 Integrating Harmony in Environmental Regulations

Ching contributed to policy-making by applying harmony in the policies aimed at protecting the environment. Hence, when discoursing the meaning of the term in the context of the I Ching philosophy, it is necessary to state that the value of harmony in this scientific theoretical systems analysis is recognized as the principle that implies interdependence between the elements of a system. Environmental policy achieves this by setting policy objectives to protect the environment or reduce its impact (Berkes, 2009).

For instance, due to standards, it can be achieved that human actions are not destructive to tender ecosystems or exhaust the carrying capacities of reserve systems, according to Levin et al., (2013). This may involve establishing the highest level of allowable discharge, protecting and preserving some ecosystems, and enhancing

methods agnostic to natural resource stocks. In this regard, man needs to consider society's needs and address the effects of environmental degradation to promote sustainable development.

4.2.2 Policies Promoting Adaptability to Climate Change

Another area where I Ching principles are applied in policymaking is in the capacity to develop policies to enhance the capacity to adapt to climate change. Some basic elements include flexibility and vision and the tenacity that is inherent in I Ching, a Chinese oracle for change that is still widely used (Wilhelm & Baynes, 1967). By applying this principle under climate change, it may be conceived to suggest policies that should meet the impacts of climate change where they occur and when they do.

For example, climate change mitigation measures and practices may include activities that enhance structure resilience, protect the population most exposed to adverse effects of climate change, and develop more sources of income. Table 2, listing multiple types of adoptions implemented in the process by governments, communities, business sector, and individuals, among others, is illustrative from Pulwarty et al., (2007). This can entail funding the green infrastructure, including roads, bridges, buildings, early warning systems, and natural disasters, and contributing to the collective climate change mitigation in the community. By applying adaptability principles to climate change policies, the authorities can help societies and minimize the risks and the impacts of climate change.

Table 2. Adaptation Initiatives by Region

| REGION Country Reference | Climate-related stress | Adaptation practices |
|---|--|--|
| AFRICA | | |
| Egypt <i>El Raay (2004)</i> | Sea-level rise | Adoption of National Climate Change Action Plan integrating climate change concerns into national policies; adoption of Law 4/94 requiring Environmental Impact Assessment (EIA) for project approval and regulating setback distances for coastal infrastructure; installation of hard structures in areas vulnerable to coastal erosion. |
| Sudan <i>Osman-Elasha et al. (2006)</i> | Drought | Expanded use of traditional rainwater harvesting and water conserving techniques; building of shelter-belts and wind-breaks to improve resilience of rangelands; monitoring of the number of grazing animals and cut trees; set-up of revolving credit funds. |
| Botswana <i>FAO (2004)</i> | Drought | National government programmes to re-create employment options after drought; capacity building of local authorities; assistance to small subsistence farmers to increase crop production. |
| ASIA & OCEANIA | | |
| Bangladesh <i>OECD (2003a); Pouliotte (2006)</i> | Sea-level rise; salt-water intrusion | Consideration of climate change in the National Water Management Plan; building of flow regulators in coastal embankments; use of alternative crops and low-technology water filters. |
| Philippines <i>Lasco et al. (2006)</i> | Drought; floods | Adjustment of silvicultural treatment schedules to suit climate variations; shift to drought-resistant crops; use of shallow tube wells; rotation method of irrigation during water shortage; construction of water impounding basins; construction of fire lines and controlled burning; adoption of soil and water conservation measures for upland farming. |
| | Sea-level rise; storm surges | Capacity building for shoreline defence system design; introduction of participatory risk assessment; provision of grants to strengthen coastal resilience and rehabilitation of infrastructures; construction of cyclone-resistant housing units; retrofit of buildings to improved hazard standards; review of building codes; reforestation of mangroves. |
| | Drought; salt-water intrusion | Rainwater harvesting; leakage reduction; hydroponic farming; bank loans allowing for purchase of rainwater storage tanks. |
| AMERICAS | | |
| Canada <i>(1) Ford and Smit (2004)</i> <i>(2) Mehdi (2006)</i> | (1) Permafrost melt; change in ice cover | Changes in livelihood practices by the Inuit, including: change of hunt locations; diversification of hunted species; use of Global Positioning Systems (GPS) technology; encouragement of food sharing. |
| | (2) Extreme temperatures | Implementation of heat health alert plans in Toronto, which include measures such as: opening of designated cooling centres at public locations; information to the public through local media; distribution of bottled water through the Red Cross to vulnerable people; operation of a heat information line to answer heat-related questions; availability of an emergency medical service vehicle with specially trained staff and medical equipment. |
| United States <i>Easterling et al. (2004)</i> | Sea-level rise | Land acquisition programmes taking account of climate change (e.g., New Jersey Coastal Blue Acres land acquisition programme to acquire coastal lands damaged/prone to damages by storms or buffering other lands; the acquired lands are being used for recreation and conservation); establishment of a 'rolling easement' in Texas, an entitlement to public ownership of property that 'rolls' inland with the coastline as sea-level rises; other coastal policies that encourage coastal landowners to act in ways that anticipate sea-level rise. |

Source: Pulwarty et al., 2007.

4.2.3 Holistic Approaches to Economic, Social, and Environmental Policies

When it comes to decision-making, Economic, Social and Environmentally Sustainable Development has to be considered. This correlates with the concepts present in the I Ching worldview, which states that the universe and everything in it are interconnected and interdependent (Wilhelm & Baynes, 1967). The formulation of policies, therefore, involves the formulation of proper policies that address societal issues, and, in the same manner, address issues related to environmental conservation and economic development.

For instance, sustainable development policies aim to realize economic development for social and environmental sustainability (World Commission on Environment and Development, 1987). This could involve implementing green fiscal measures, advocating for renewable energy, or endorsing pro-inclusive economy

measures. Several integrated policies mean that the subject of complex matters such as poverty, poor socioeconomic disparities, and non-favourable environmental impacts can be considered holistically in regard to sustainable development for everyone by the policymakers.

4.3 Case Studies

4.3.1 Analysis of Successful Policy Implementations Inspired by I Ching

The following are examples of policies that have been implemented successfully based on the philosophy of the I Ching. The cases also offer a great view of how the concepts that originated in ancient civilizations can be applied to today's political behaviours and can have a constructive impact on various activities concerned with environmental preservation, city arrangement and organization, and company management.

One such interference is the application of methods to restore dispersed ecological habitats

based on the I Ching philosophy in the area of the Loess Plateau in China. Before the years that the 'Grain for Green' program was launched in the Loess Plateau region, the region had, for instance, lost most of its nutrient-rich topsoil to rapid erosion and desertification processes. In line with the program proposed by the I Ching, the purpose of creating wood and grass in the wooden farmland area of the kingdom is to enhance the ecological system. The social and economic changes effected by the program include hydrological rehabilitation, restoration of the natural environment, terracing undertaken by afforestation and many other measures taken to promote soil conservation (Yu et al., 2020).

On the same note, Suzhou City in China has also embraced the sustainable urban planning principles supported by the I Ching to design its cities (Zhang et al., 2014). Again, following the system of holistic thinking, the concepts of traditional Chinese architecture and principles of designing the landscape were implemented into urban planning. Hence, following principles of balance, proportion and feng-sui principles, the urban planners of Suzhou shaped a pleasant, coherent neighbourhood for its inhabitants aimed at community welfare, cultural conservation and environmental interaction and sensitivity (Zhang et al., 2014).

4.3.2 Comparative Analysis with Conventional Policies

A comparison of the policies derived from I Ching with the conventional policies shows specific general differences, as well as the possible benefits of integrating ancient knowledge into policy-making processes. Traditional strategies tend to focus on quantitative growth and immediate benefits rather than the quality of life and ecosystem health (Meadows et al., 1972). However, the policies based on the philosophical vision of I Ching are more organic and harmonised conceptions that reflect the interdependent economic, social, and environmental systems.

For instance, standard agricultural practices may involve intervention that aims to increase crop productivity through practices such as monoculture farming, which results in soil erosion, water pollution and loss of bio-diversity (Foley et al., 2011). Thus, while I Ching-based agroecological approaches are more complex and focused on the concept of I Ching, the

extensive use of cover crops, and the level of soil health and ecosystem stability. In other words, policies in agroecology help to foster sustainable agriculture whereby agriculture practices such as differentiated planting, trees for food and income and the integrated use of pests help to enhance ecosystem support, support of agriculture livelihoods and food support for future generations (Altieri, 2018).

Thus, analysing successful implementations of the policies based on the I Ching philosophy, the given paper has presented sufficient evidence of how embracing ancient wisdom in decision-making could prove beneficial for modern societies.

4.4 Implications for National Sustainability Policies

4.4.1 Potential Benefits and Challenges

On one hand, the practical application of the I Ching philosophy in the form of sustainability policies on the national level can be helpful. In one instance, interweaving traditional knowledge into policy formulation and management might contribute to innovation, health, and restoration of people, as well as enhancing the ability to deal with diverse predicaments (Folke et al., 2005). Integrating harmony into decision-making, learning to change and grow as needed, and approaching problems with integrated thinking, policymakers can implement far more efficient problem-solving models, specifically in terms of environmental, social, and economic issues.

For instance, decisions based on I Ching could focus on the sustainable rebuilding of ecosystems, developmental undertakings that espouse the use of indigenous approaches towards communal conservation, and the promotion of green infrastructure that helps maintain resilience within the environment for the benefit of human beings (Folke et al., 2005). Engaging these stakeholders can buttress the reality of local observations associated with current ecosystem loss by uncovering the gamut of further mechanisms that investment in traditional ecological knowledge offers over and above conventional frameworks.

However, there are also some areas for improvement arising from the attempts to incorporate traditional knowledge into the contemporary system of policymaking. Cross-cultural determinants may include language and culturally grounded perspectives that may slow the progress of communication

and partnership between policymakers and practitioners and the communities they intend to serve (Berkes, 2009). However, resistance to change, skepticism, and institutional rigidity may present society with challenges in adapting new notions and practices (Pulwarty et al., 2007).

4.4.2 Long-Term Impact on Policy-Making and Environmental Sustainability

However, embedding the I Ching philosophy in the nation's workings and sustainability policies might have a lasting impact. Therefore, the application of the regulations supported by the I Ching philosophy can help develop social systems from the point of view of their relationship with nature, which is important for the systemic level of system enhancement (Folke et al., 2005). Thus, the evolution to the functioning based on better, more tolerant and democratic values, as well as understanding the global community itself and the limits of the Earth's capacity to support life, is possible.

For example, shifting to the principles of balance, flexibility, and wholeness of the national sustainability policies may turn into pluralism, which will encourage the collective and participatory decision-making processes of local communities and other vulnerable actors (Berkes, 2009). This may result in improved distribution of resources, improved social interactions, and also improved standards in the treatment of natural resources at the grassroots level.

Further, integrating the I Ching philosophy in the policies of sustainable development in a nation can help in shaping a more transformative outlook of the policy, from the mechanistic approach to that of an organic one that supports the long-term objectives (Pulwarty et al., 2007). Consequently, if *nature* is defined as a valuable asset, the world's environment, and development that meets the needs of the current and future generations, officials in charge may come up with policies that will positively impact the majority without fuelling the insatiable material appetites of some leaders in terms of income (World Commission on Environment and Development, 1987).

5. Conclusion

This paper has discussed how the Chinese I Ching philosophy can be used to determine strategies for the formulation and implementation of sustainable policies at the

national level. By employing case studies, literature review, and thematic analysis, this paper has argued that fundamental principles of I Ching, such as harmony, flexibility and integration, lend themselves well to policymaking in the current globalised world. Based on these principles, policies introduced support ecological stability, the ability of nature and other living organisms, and systems approach, the tendency towards sustainable development and fairness. The study of successful policy implementation, such as ecological restoration in the Loess Plateau and sustainable urban development in Suzhou, demonstrates the practical application of I Ching principles. These case studies show how indigenous knowledge can improve environmental sustainability, social capital, and sustainable development. Nevertheless, there are issues thrown by cultures and institutions, and attempts to adapt timeless concepts to the present day need to be resolved. However, the idea here is that many of these problems can be traced to Ching-inspired policies that may remain a long-term future source to address national and international sustainability. In this regard, these policies may help enhance society's ability to create more sustainable, equitable, and robust human and natural systems. Future research and collaboration are required to expand the contributions of the I Ching philosophy for policymaking toward a sustainable future.

References

- Agada, A. and Van Norden, B.W. (2021). *Consolationism and comparative African philosophy: Beyond universalism and particularism*. Routledge.
- Altieri, M.A. (2018). *Agroecology: the science of sustainable agriculture*. CRC press.
- Bäckstrand, K. and Kuyper, J.W. (2017). The democratic legitimacy of orchestration: the UNFCCC, non-state actors, and transnational climate governance. *Environmental Politics*, 26(4), pp. 764-788.
- Beatley, T. (2012). *Green urbanism: Learning from European cities*. Island press.
- Berkes, F. (2009). Evolution of co-management: Role of knowledge generation, bridging organisations and social learning. *Journal of environmental management*, 90(5), pp. 1692-1702.

- Biermann, F., Pattberg, P., Van Asselt, H. and Zelli, F. (2009). The fragmentation of global governance architectures: A framework for analysis. *Global environmental politics*, 9(4), pp. 14-40.
- Carson, R. (1962). *Silent Spring*. Boston: Houghton Mifflin Company.
- Chan, W.-T. (2008). *A Source Book in Chinese Philosophy*. Princeton: Princeton University Press.
- Chin, T., Shi, Y., Palladino, R. and Faggioni, F. (2022). A Yin-Yang dialectical systems theory of knowledge creation. *Journal of Knowledge Management*.
- Cleaver, F. (2017). *Development through bricolage: Rethinking institutions for natural resource management*. Routledge.
- Conceição, P. (2020). Human development report 2020-the next frontier: Human development and the Anthropocene. *United Nations Development Programme: Human Development Report*.
- Daysh, S., Carey, B., Doorman, P., Luketina, K. and Zarrouk, B.W.S.J. (2020). 2015-2020 New Zealand country update. In *Proceedings, World Geothermal Congress* (Vol. 2020).
- Feng, Y. (1948). *A short history of Chinese philosophy* (Vol. 91098). Simon and Schuster.
- Fetting, C. (2020). The European Green Deal. *ESDN report*, 53.
- Foley, J.A., Ramankutty, N., Brauman, K.A., Cassidy, E.S., Gerber, J.S., Johnston, M., Mueller, N.D., O'Connell, C., Ray, D.K., West, P.C. and Balzer, C. (2011). Solutions for a cultivated planet. *Nature*, 478(7369), pp. 337-342.
- Folke, C., Hahn, T., Olsson, P. and Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annu. Rev. Environ. Resour.*, 30, pp. 441-473.
- Hák, T., Janoušková, S. and Moldan, B. (2016). Sustainable Development Goals: A need for relevant indicators. *Ecological indicators*, 60, pp. 565-573.
- Hamill, S. (2007). *Tao Te Ching: A New Translation*. Shambhala Publications.
- Hirai, T. and Comim, F. (2022). Measuring the sustainable development goals: A poset analysis. *Ecological Indicators*, 145, p. 109605.
- Huang, T.M.A. (2010). *The Complete I Ching—10th Anniversary Edition: The Definitive Translation by Taoist Master Alfred Huang*. Simon and Schuster.
- Jung, C.G., Wilhelm, R. and Wilhelm, H. (2011). *The I Ching or Book of Changes* (Vol. 31). Princeton University Press.
- Kaptchuk, T.J. (1986). The web that has no weaver: Understanding Chinese medicine.
- Karcher, S.L. (2000). *Ta Chuan: The Great Treatise*. St. Martin's Press.
- Lam, T. and Ching, L. (2007). An exploratory study of an internship program: The case of Hong Kong students. *International Journal of Hospitality Management*, 26(2), pp. 336-351.
- Legge, J. ed. (1963). *The I Ching* (Vol. 16). Courier Corporation.
- Leopold, A. (2014). "The Land Ethic": from A Sand County Almanac (1949). In *Sustainable Urban Development Reader* (pp. 24-33). Routledge.
- Levin, S., Xepapadeas, T., Crépin, A.S., Norberg, J., De Zeeuw, A., Folke, C., Hughes, T., Arrow, K., Barrett, S., Daily, G. and Ehrlich, P. (2013). Social-ecological systems as complex adaptive systems: modelling and policy implications. *Environment and development economics*, 18(2), pp. 111-132.
- Li, Z., Feng, X., Duan, W., Yang, Y. and Liu, B. (2017 July). I Ching philosophy inspired optimisation. In *2017 13th IEEE International Conference on Control & Automation (ICCA)* (pp. 353-360). IEEE.
- Loorbach, D. and Rotmans, J. (2010). The practice of transition management: Examples and lessons from four distinct cases. *Futures*, 42(3), pp. 237-246.
- Lui, I. (2005). *The Taoist I Ching*. Shambhala Publications.
- Lynn, R.J. trans. (1994). The Classic of Changes: A New Translation of the I Ching as Interpreted by Wang Bi. *New York: Columbia University Press*, 1(994), p. 47.
- Matos, L.C., Machado, J.P., Monteiro, F.J. and Greten, H.J. (2021, March). Understanding traditional Chinese medicine therapeutics: an overview of the basics and clinical applications. In *Healthcare* (Vol. 9, No. 3, p. 257). MDPI.
- Meadows, D.H., Meadows, D.L., Randers, J. and

- Behrens, W.W. (1972). *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. New York: Universe Books.
- Naess, A. (2017). The shallow and the deep, long-range ecology movement. A summary. In *The ethics of the environment* (pp. 115-120). Routledge.
- Nations, U. (2015). Transforming our world: The 2030 agenda for sustainable development. New York: United Nations, Department of Economic and Social Affairs, 1, p. 41.
- Pulwarty, R., Smit, B. and Takahashi, K. (2007). Assessment of adaptation practices, options, constraints and capacity. *Climate change*, p. 717-743.
- Reed, M.S., Fraser, E.D. and Dougill, A.J. (2006). An adaptive learning process for developing and applying sustainability indicators with local communities. *Ecological economics*, 59(4), pp. 406-418.
- Romson, Å. and Forsbacka, K. (2020). The Swedish climate policy framework including the Climate Act. *National climate change acts. The emergence, form and nature of national framework climate legislation*. Oxford: Hart Publishing.
- Sagoff, M. (2007). *The economy of the earth: Philosophy, law, and the environment*. Cambridge University Press.
- Singer, P. (1979). *Practical Ethics*. Cambridge University Press.
- Smith, R.J. (2012). *The "I Ching" A Biography*. Princeton University Press.
- Taylor, P.W. (2011). *Respect for nature: A theory of environmental ethics* (Vol. 51). Princeton University Press.
- Visbeck, M. and Ringler, C. (2016). A draft framework for understanding SDG interactions. International Council for Science (ICSU): Paris, France.
- Wang, W., Feng, C., Liu, F. and Li, J. (2020). Biodiversity conservation in China: A review of recent studies and practices. *Environmental Science and Ecotechnology*, 2, p. 100025.
- Wilhelm, R., Baynes, C.F. and Jung, C.G. (1967). The I Ching or book of changes. *Bollingen series*, 19.
- Wong, S.Y. and Yau, O.H. (2023). Leading through the development of the trust cycle according to the I-Ching. *Journal of Transnational Management*, 28(3-4), pp. 215-248.
- World Commission on Environment and Development. (1987). *Our Common Future*. Oxford. UK: Oxford University Press.
- Yu, Y., Zhao, W., Martinez-Murillo, J.F. and Pereira, P. (2020). Loess Plateau: from degradation to restoration. *Science of the Total Environment*, 738, p. 140206.
- Zhang, X., Hu, J., Skitmore, M. and Leung, B.Y. (2014). Inner-city urban redevelopment in China metropolises and the emergence of gentrification: Case of Yuexiu, Guangzhou. *Journal of Urban Planning and Development*, 140(4), p. 05014004.
- Zhang, Y. and Fong Foo, S. (2012). Balanced leadership: Perspectives, principles and practices. *Chinese Management Studies*, 6(2), pp. 245-256.