



2023

Wang Dao Sustainability Index Report

Persistent Shadows of War in Post-Pandemic World

Foundation of Chinese Culture for Sustainable Development

A Tribute to the Late Professor Yun-han Chu

In the opening of this report on sustainable development, we extend our deepest respects and gratitude to Professor Yun-han Chu, who sadly passed away at the beginning of 2023. This distinguished scholar, who held the prestigious titles of Academician at Taiwan's Academia Sinica and professor at National Taiwan University, was also the sole Chinese member of the board of the American Political Science Association (APSA). He was not only a vital advisory presence for our team but also a pioneer in the fields of democratic society, international peace, and Sustainable Development. Under his wise guidance and active participation, the "Wang Dao Sustainability Index" (WDSI) was successfully established, embodying values that respect cultural diversity and address the sustainability needs of the vast majority of communities on Earth.

Throughout his life, Professor Chu devoted himself to academic research, public advocacy, and practical application in the real world. He tirelessly worked towards a world characterized by shared destinies and unity in diversity, aspiring for a future that is more harmonious, just, and sustainable. His vision and wisdom have directed our path, while his passion and pursuit of truth continually inspire our mission.

Following the loss of this scholar, we find ourselves bereft not only of a mentor with profound love for his country and visionary insight but also of an activist who ceaselessly fought for world peace and sustainable development. His passing leaves an irreplaceable void, yet the vision and ideals he left behind will continue to guide the WDSI forward. Through this tribute, we offer our deepest condolences and endless gratitude to Professor Yun-han Chu. His spirit and beliefs will forever permeate our work.

Introduction

Wang Dao Sustainability Index (WDSI)

Introducing an innovative measure, the Wang Dao Sustainability Index (WDSI) carves a unique niche in the international sphere by integrating the venerable Wang Dao ("Kingly Way") principle into its foundational assessment structure. Rooted deeply in the rich tapestry of traditional Chinese philosophy, the WDSI provides a nuanced, human-centered methodology for evaluating sustainable development, thus challenging the norms of existing metrics.

Wang Dao, a concept steeped in historical significance, goes beyond the traditional paradigms of monarchy to champion a philosophy of enlightened governance that harmonizes heaven, hearth, and humanity, infused with the concepts of anti-hegemony, people-orientedness, and sustainability. This approach is in perfect harmony with modern concepts of sustainable development, as outlined in the United Nations' Brundtland Report (1987), which calls for a balanced approach to economic growth, social equity, and environmental protection.

Through a well-defined framework that encapsulates Global Ethics, Inclusive Development, and Environmental Equilibrium, the WDSI brings ancient wisdom to bear on contemporary issues. These three domains reflect the foundational aspects of Sustainable Development, enabling a comprehensive evaluation of a nation's approach to sustainability. By offering a fresh perspective for global decision-makers, the WDSI bridges the gap between age-old philosophies and current challenges, marking a significant evolution in the dialogue on global sustainability.



Foundation of Chinese Culture for Sustainable Development

Founded in 2015, the Foundation of Chinese Culture for Sustainable Development (FCCSD) is a Taiwan-based NGO established by a diverse group of experts from the corporate sector, public service, and academia. The organization's founder and chairman, Dr. Chao-shiuan Liu, who has held prestigious positions as the President of National Tsing Hua University and as the Premier of the Republic of China (Taiwan), is now fervently dedicated to the promotion of Chinese culture. FCCSD is deeply committed to the preservation and inheritance of Chinese cultural essence, aiming to propel it into a new renaissance by synergizing with contemporary sustainable development ideologies, thereby contributing significantly to the global community.

FCCSD actively engages in the modernization and popularization of Chinese culture. Efforts include the integration of traditional Chinese arts, such as cross talk and the promotion of classical Chinese proverbs and poetry, through online multimedia programs that serve educational, cultural, and entertainment purposes. Additionally, FCCSD has established a cross-strait platform for Chinese calligraphy and art, collaborated with mainland China to host exhibitions on traditional calligraphy, seal carving, contemporary Chinese art, and forums, and launched the Wang Dao Sustainability Index (WDSI) in 2018.

For more information, visit our website at www.fccsd.org.tw.

中華文化永續發展基金會
Foundation of Chinese Culture for Sustainable Development

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■ PREFACE

Since the 1990s, the United Nations, in response to the challenges of the century, advocated for sustainable development as articulated by the Brundtland Commission. Over three decades, significant strides have been made in two of the three pillars of sustainable development—Economic Development and Environmental Protection—with notable achievements especially in advanced nations. However, progress in Social Justice, the third pillar, has been less commendable, with some areas even regressing. This has led to calls for incorporating a fourth pillar: Culture, which is believed to be foundational to sustainable development.

Considering this, the question arises: what contribution can the 5,000-year-old Chinese culture make? Historian Arnold J. Toynbee suggested that solutions to the post-20th century human civilization's challenges could be found in Confucianism and Mahayana Buddhism, providing an optimistic view on the potential contributions of Chinese culture to human sustainable development.

The last century witnessed immense changes, especially after the World Wars, where technological and industrial advancements led to increased complexity in supply and demand, concentrating wealth in the hands of a few, intensifying conflicts, and exacerbating global issues such as socio-economic disparities, resource depletion, ecological damage, and climate change.

In response, there is a pressing need for a new Renaissance that aligns the essence of traditional Chinese culture with contemporary thought, offering new universal values to the world. This initiative is embodied in the proposal of the Wang Dao principle by Mencius, emphasizing Benevolent

Governance, Counterhegemony, People-orientedness, Sustainability, and Empathy. These principles, aligned with the UN's Sustainable Development Goals, have inspired the establishment of the Wang Dao Sustainability Index, integrating Chinese cultural perspectives into sustainable development metrics, offering new insights for nations and economies in the 21st century.

As global challenges intensify, the limitations of Western-centric solutions become evident, making the Eastern philosophical outlook a burgeoning global trend. Drawing from Mencius, there's a belief that benevolent governance, even if applied with less effort than in ancient times, can lead to significant positive outcomes for humanity.

Through academic, educational, cultural, and promotional efforts, the Wang Dao Sustainability Index aims to provide an alternative framework for the global community, particularly developing countries, in pursuing sustainable development. This represents a step forward for 21st-century civilization, showcasing the valuable contributions of Chinese culture to the collective heritage of humanity.



Chaoshen Lin
President, FCCSD

■ In a 2023 addendum to the preface

In the 2018 preface to the inaugural publication of the WangDao Sustainability Index (WDSI), I posited that culture is the foundation of sustainable development, leading us to question: what contributions can the 5,000-year history of Chinese culture make?

We proposed the integration of WangDao with sustainable development.

Over the swift span of the last five years, the landscape of sustainable development has been starkly outlined by global challenges. The COVID-19 pandemic, with its death toll exceeding 20 million and causing trillions in economic losses, has not only been a health crisis but also a mirror reflecting the deep fissures of moral hypocrisy, distrust among nations, and stark inequalities that disproportionately affect the most impoverished and vulnerable communities globally.

The aftermath of the pandemic barely settled before the outbreak of the Russo-Ukrainian War, the gravest conflict in Europe since World War II. This conflict, a manifestation of hegemonic strategies, represents not only the immediate human and infrastructural toll but also a shift toward more manipulative and anti-humanitarian geopolitical operations. Amid this, the resurgence of hostilities between Israel and Hamas, fueled by ancient animosities, further highlighted the dire humanitarian crises, with thousands of civilians, including women and children, perishing in the Gaza Strip within months, transforming from a military and economic confrontation to a humanitarian catastrophe.

These events have had a significant direct and indirect impact on global environmental equilibrium. In the face of these disasters, environmental sustainability efforts have been largely ignored, from the sabotage of the Nord Stream pipeline for political ends to the uncontrolled wildfires and the discharge of nuclear waste into the oceans, undermining efforts to combat global climate change and protect marine environments. This starkly illustrates the unsustainable nature of hegemonic cultures and the critical need for WangDao principles.

Upon closer examination, the dominance and escalation of hegemonic forces have negatively impacted the three domains foundational to WangDao philosophy: Global Ethics, Inclusive Development, and Environmental Equilibrium. Since hegemony is predominantly a feature of great powers, developing countries may have a clearer insight into the importance of WangDao for international order, socio-economic development, and harmonious human-nature relations. Disillusioned by Western hegemonic culture, it may only be when the influence of Western powers wanes and the Third World rises, leveraging its resources and cherishing the Nature, that a glimmer of hope for achieving the United Nations' Sustainable Development Goals (SDGs) can be seen amidst the darkness. This not only calls for a reevaluation of current global strategies but also underscores the potential of integrating ancient wisdom with contemporary challenges to forge a path toward a sustainable future.

■ The 2023 WDSI Key Findings

- 1.** Between 2018 and 2023, trends of the "Wang Dao Sustainability Index" (WDSI) and its three domains—Global Ethics, Inclusive Development, and Environmental Equilibrium—revealed pronounced volatility within the Global Ethics domain. This instability is attributable to the multifaceted challenges introduced by the COVID-19 pandemic and the conflict between Ukraine and Russia. In the 2023 report, a rebound was manifested in this domain, largely attributed to the resumption and increase in international exchanges and trade activities. However, the "Inclusive Development" domain has stagnated, while "Environmental Equilibrium" has shown a declining trend. Economic recessions, alongside crises in food and energy, compounded by inflation and burgeoning debt, significantly challenge the "Inclusive Development" domain both presently and prospectively. These factors collectively introduce risks and challenges to human survival that are unparalleled in history. In the forthcoming decade, environmental crises are deemed the greatest global risk. Countries that achieve rapid carbon neutrality are expected to lead the energy transition, unlocking substantial growth opportunities through the advancement of green technologies.
- 2.** The 2023 WDSI survey covered 169 economies, with an average score of 6.14. The top 30 rankings were predominantly occupied by European advanced countries, with 26 entries. Sweden, Denmark, Finland, Ireland, and Switzerland took the top five spots, with the first three being Nordic countries. These nations are known for their highly developed economies and living standards, stable political systems, quality education systems, active participation in international affairs, and promotion of sustainable development and environmental protection, aligning with Wang Dao precepts. Notably, the high number of European countries in the rankings is unprecedented. Outside Europe, Canada and Spain were tied for 10th, followed by New Zealand (18th), Australia (21st), Japan (25th), and South Korea (30th). The bottom 30 included 21 countries from the Sub-Saharan African region, primarily low-income economies or those affected by conflict.

- 3.** The 2023 WDSI geographic regional group trend analysis highlights significant advancements in South Asia, Western Europe, and North America. After a major recession triggered by the pandemic, South Asia has shown strong recovery momentum. Western European countries have consistently excelled in sustainable performance, leading in annual scores and growth trends, second only to South Asia. In contrast, East Asia, Eastern Europe and Central Asia, as well as Latin America and the Caribbean, are grappling with challenges of negative growth, with East Asia's economic downturn being particularly pronounced. The pandemic has highlighted the inadequacies of global cooperation mechanisms and the strategic value of international regional organizations.
- 4.** In terms of income groups, the 2023 WDSI results reveal that high-income economies significantly outperform other income brackets in sustainable development, with the largest disparity observed against low-income groups, amounting to a difference of 2.56 points. Notably, even within the cohort of high-income economies, the ranking span extends over 118 positions, indicating that substantial inequalities in sustainable development persist even among nations traditionally categorized as high-income.
- 5.** According to trends in the WDSI, based on average and median differences over the years, global inequality peaked in 2020, marking a significant high point. Subsequently, this trend of inequality began to moderate, displaying a noticeable downward curve, indicative of a shrinking disparities between nations and a move towards pre-pandemic levels. This shift suggests a gradual global progression towards greater equality, contrary to the pessimistic forecasts during the pandemic period.

1 Crisis of human existence and paths to transformation

Following the World Health Organization's (WHO) downgrading of the COVID-19 pandemic to an endemic, the aftermath of the virus appeared diminished in 2023, leading to the final relaxation of zero-COVID policies in China, and a return to normalcy in society. However, the global community has yet to reach the level of frequent interactions and openness that characterized the pre-pandemic world, with cautious uncertainty pervading international relations, even amid competition and cooperation. The once-promising era of peace post-millennium has been tarnished by the consecutive impacts of COVID-19, the Ukraine-Russia war, and the Israel-Hamas conflict, casting a shadow of turmoil and bloodshed.

Leaders worldwide, in the post-pandemic era, face significant challenges in reorganizing global supply chains, managing domestic inflation, increasing inequality, and confronting social polarization. The urgent threat of extreme climate disasters to environmental safety and human survival has accelerated the shift towards renewable energy, significantly reducing reliance on fossil fuels and increasing the share of clean energies such as solar and wind. With the 1.5°C temperature control target of the Paris Agreement on the brink of being unmanageable, advancements in emerging technologies have enhanced energy efficiency and spurred the growth of the green industry, offering concrete pathways to mitigate global warming and reignite hopes for sustainable development.

1-1 Survival as humanity's prime consensus

After more than three years of devastation caused by the COVID-19 pandemic, resulting in nearly 7 million deaths worldwide¹, there is a glimmer of hope as the WHO announced a dramatic 95% reduction in COVID-19 deaths by the end of April 2023. Despite this significant progress, approximately 10% of patients continue to experience long-term symptoms of the virus, indicating that hundreds of millions globally will require ongoing medical care. On a positive note, healthcare systems worldwide are gradually recovering from the overwhelming disruptions, with the WHO

reporting that the rate of interrupted services has decreased from 56% in 2020 to 23% in early 2023. Furthermore, the number of children missing vaccinations, referred to as "zero-dose children," has nearly returned to pre-pandemic levels of 2019, including for critical vaccines against diphtheria, tetanus, pertussis (whooping cough), and measles.

NOTE

1. As of May 2023, nearly 7 million COVID-19 deaths have been reported to the World Health Organization (WHO) globally. However, Dr. Tedros Adhanom Ghebreyesus, the WHO Director-General, has indicated that the actual death toll is likely much higher than reported, with estimates suggesting at least 20 million fatalities.

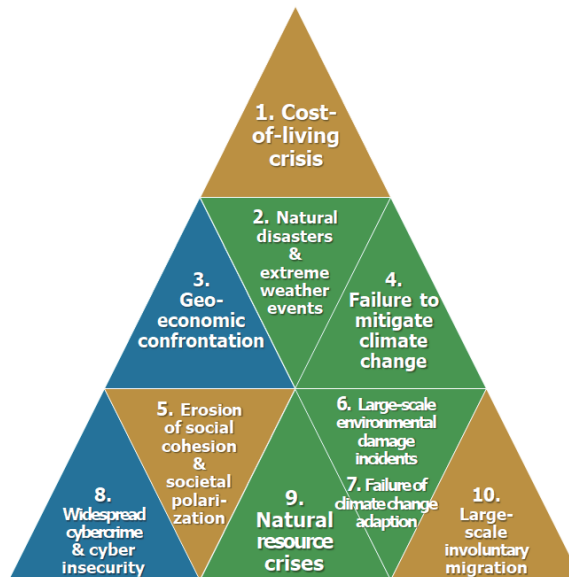
Despite numerous indicators showing optimistic progress, the lingering global pandemic subtly reminds humanity of the reverence for life, no longer taking survival for granted, establishing it as the highest global consensus. In 2023, the world faced political upheaval and economic hardships, exemplified by coups in African nations such as Niger and Gabon and crises spurred by extreme climate events like the devastating wildfires in Maui, Hawaii, in August, leading to an unprecedented movement of over 100 million refugees, setting a new record. By the end of 2023, the war between Russia and Ukraine remained entrenched, marking the first conflict of the 21st century to last over a year. The Gaza conflict between Hamas and Israel, overshadowed by millennia of historical animosity, has tragically transcended racial and religious hatred, with both sides accusing each other of genocide, and rampant acts of torture and sexual violence, making women, children, and innocent civilians the primary victims.

In an era marked by extreme climate and post-pandemic challenges, countries worldwide are grappling with expanding disparities in wealth both domestically and internationally, alongside the growing threat of sovereign debt crises. The landscape is further complicated by the rise of extreme poverty, acute energy deficits, disparities in food production and distribution, and escalating inflation, all of which contribute to a perilous cycle that impedes socio-economic progress. According

to the World Economic Forum's The "Global Risks Report 2023," published by the World Economic Forum, highlights the forthcoming year's paramount risks, including crises in energy supply, escalating costs of living, rampant inflation, food security challenges, and cyber threats targeting essential infrastructure. These identified risks underscore pressing concerns in the realms of global peace, equitable development, and environmental conservation, spotlighting issues often overlooked yet progressively exacerbating. In the short term (within two years), cost-of-living crisis will dominate global risks, while the most severe crisis over the next decade is the rapidly worsening ecosystem collapse and natural disaster threats due to climate change (Figure 1.)

To address these challenges, international cooperation must be strengthened. Firstly, cooperation for the global public good must be enhanced to respond more swiftly and effectively to extreme climate adaptation and major disaster relief. Secondly, nations should strive to improve social safety nets to mitigate the impact of sudden events on vulnerable groups, especially in response to political issues, wars, or economic refugee crises. This includes strengthening short-term emergency relief systems and developing long-term socio-economic policies to alleviate the negative impact on vulnerable populations, ensuring these efforts effectively contain disaster escalation and promote the achievement of long-term sustainable development goals.

Global risks ranked by severity over the short term (2 years)



Global risks ranked by severity over the long term (10 years)

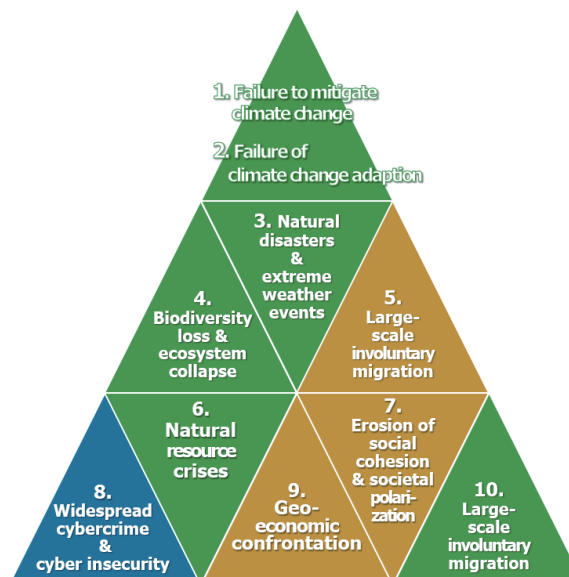


Figure1 | Global Risks 2023: Global risks ranked by severity over 2 and 10 years

Source: Translation and compilation from the World Economic Forum's "Global Risks Report 2023"

1-2 Key challenges and green opportunities in carbon reduction

In 2022, the world faced a severe climate challenge, marking it as the fifth hottest year on record. The top ten extreme weather events of the year each caused losses exceeding \$3 billion. If global temperatures continue to rise, the GDP of the world's 65 most vulnerable countries could decrease by an average of 20% by 2050, and by 64% by 2100. Despite significant progress in global energy transition and decarbonization, with a 2.5% decrease in carbon emission intensity in 2022, the pace of decarbonization must accelerate to meet the 1.5°C warming target by 2050. According to 2023 levels, the remaining carbon budget could be exhausted in less than seven years. By September 2023, 151 countries, covering 92% of the global GDP, 89% of the population, and 88% of emissions, had announced carbon neutrality goals. Most aim for 2050 or later, with only 12 countries committing to achieve this before 2050.

The 28th United Nations Climate Change Conference (COP28) held in Dubai at the end of 2023, spotlighted the excess and imbalance in global emissions. Emissions from fossil sources increased by 1.1% compared to 2022, with China and the United States being the leading CO₂

emitters. The wealthiest 10% of the global population contributed 48% of total emissions, two-thirds of whom live in advanced countries. Key topics at COP28 included limiting and gradually phasing out fossil fuels, and promoting the transition to green energy. 22 world leaders signed a declaration to propose increasing nuclear energy capacity as part of a global effort to boost nuclear power and meet the 1.5°C warming limit. A notable outcome of the conference was the pledge to shift from reliance on fossil fuels and hasten the advancement of technologies with minimal or no emissions.

In response to climate change, developed and developing countries employ markedly different strategies. Developed countries focus on internal structural adjustments to adapt to new environmental demands, while developing countries urgently require more financial aid, technological support, and governance capacity building. Despite facing numerous challenges, developing countries have a unique opportunity to leapfrog through systemic transformations, including technological innovation, changes in consumption patterns, adjustments in investment and trade, and optimized energy management. Through these comprehensive changes, developing countries aim to establish a low-carbon, resource-efficient, and socially inclusive economic system, with a green economy at its core, paving the way for sustainable environmental development.

The "2023 Global Carbon Neutrality Progress Report" issued by Tsinghua University in Beijing finds that while developing nations exhibit notable performance in the variety and scope of their carbon neutrality goals, they manifest shortcomings in the practice and equity of these targets. The report also highlights challenges faced by developing countries, including inefficient climate finance and international technology transfer. There's a critical need for these nations to enhance the integration and management of technical, financial, and implementation data, and to establish reliable databases. These would serve as a foundation for global cooperation, facilitating effective international technology transfer and climate finance flows, and accelerating global climate action.

In developing countries, some remarkable examples showcase the immense potential of a green economy. Kenya, a pioneer in renewable energy, has achieved significant success in geothermal energy, developing approximately 950 megawatts and accounting for nearly 90% of its total power generation from renewable sources. This not only significantly reduces Kenya's reliance on fossil fuels but also positions it as a major exporter of geothermal technology in the region. Brazil, leading in global biofuel production, has become an important producer and exporter. With 84% of its electricity coming from renewable sources like ethanol, Brazil

stands out as the only country to completely ban the supply of pure gasoline. Its leadership in clean and renewable energy has spurred robust industry growth and substantial employment generation.

Meanwhile, mainland China has rapidly emerged as one of the world's largest producers and exporters of solar panels, boasting the largest installed capacity of wind power. Through subsidies, tax incentives, and the construction of large-scale solar power projects, the Chinese government has not only fostered technological innovation but also significantly expanded production scales, effectively reducing the cost of solar power globally. Furthermore, China's ambitious "Belt and Road" initiative has led to the construction of the world's largest solar power plant, Al-Dhafra IPP, in the United Arab Emirates, aiming to increase the country's green energy share to over 13% of its total energy consumption. These initiatives not only highlight China's contributions to promoting a global green economy but also illustrate how developing countries can integrate green economic practices into their pursuit of economic growth, playing a crucial role in global environmental protection and sustainable development efforts.

1-3 Rational dialogue and regional cooperation for optimal benefits

As globalization deepens, countries around the world are increasingly interconnected economically, politically, and culturally, leading to a rise in global challenges. The current international landscape is characterized by its multipolarity, complexity, and instability, especially among nuclear powers, regional powers, and emerging developing nations. The COVID-19 pandemic underscored deficiencies in global cooperation, particularly in providing vaccines on a global scale, revealing low levels of trust and societal polarization.

The influence of geopolitical forces in international relations has grown stronger, with the trend towards multipolarity becoming more evident since the Cold War. The rise of emerging nations like Russia, China, India, and Brazil has shifted the global power dynamics. In the contemporary international system, competition and cooperation among major powers and regional forces primarily revolve around economy, trade, and technology. Meanwhile, non-traditional

security threats, such as cybersecurity, financial and personal information security (including transnational fraud crimes), information warfare, and terrorism, have become challenges that countries struggle to address independently. Since 2022, the world has bid farewell to an era of peace, with bilateral wars symbolizing political struggles between different groups, deeply affecting the peace, security, and inclusive development of the involved countries and regions.

Western nations have historically held sway over principal international bodies, shaped profoundly by the ethos of liberal democracy and individualism. Since its inception in 1945, the United Nations (UN) has been instrumental in upholding global peace, spearheading development, safeguarding human rights, delivering humanitarian assistance, nurturing environmental wellbeing, and pioneering the development and enforcement of international law. Yet, of late, the UN has encountered escalating scrutiny over its perceived ideological partiality and operational deficiencies. For a more detailed discussion, please refer to the subsequent Box essay in the Global Ethics chapter.

As far as other US-led international organizations, such as the World Trade Organization (WTO), the Group of Seven (G7), the North Atlantic Treaty Organization (NATO), and bilateral and multilateral security alliances with the East Asian region, have formed a global network to maintain American core interests and order. However, the long-established world order by the West has faced unprecedented challenges over the past decade due to the rise of cross-regional alliances such as the BRICS summits, the Belt and Road Initiative, and the Shanghai Cooperation Organization. Such Emerging multilateral entities, embodying the perspectives of developing nations, are not merely evolving beyond the established international framework but also assuming a progressively crucial role within the global governance system.

Dr. Alexander Wendt, a leading American constructivist theorist in international politics, underscores the indispensable role of dialogue in the interplay of international actors, asserting it as the cornerstone of cooperation and the most efficient and cost-effective strategy for communication. In Western history, states are often regarded as the ultimate manifestation of maximizing common interests, with the

zenith of their political thought manifesting as imperialism. This process often lacks empathy-based dialogue and understanding between nations. In contrast, the Chinese cultural value of "Wang Dao" emphasizes the moral responsibility of individuals towards society and the collective, viewing "all under heaven" as the ultimate community of shared interests. Guided by the principle of "Wang Dao," this international framework mitigates conflicts and contradictions across diverse cultures and civilizations, empowering developing countries to partake in global dialogue while preserving their traditional heritage. This focus on sustainable development goals promotes environmental protection, social welfare, and economic development policies at the regional level, contributing to the stability of regional peace.

2 Introduction

2-1 WDSI Background

The philosophical traditions of Confucianism, Taoism, and Buddhism within traditional Chinese culture offer lucid guidance for individual moral conduct, expounding deeply on personal refinement, societal order, and the harmonious coexistence of humanity with nature. Confucianism esteems individual accomplishments as foundational to familial and national felicity, underscoring the integral link between personal virtue and societal well-being. Taoism advocates governance through non-interference, fostering the holistic development of society without imposing rigid values, while Buddhism promotes altruism, positing that personal fulfillment stems from benefiting others. Within this framework, the symbiotic advancement of individuals, society, and the environment is imperative.

Mencius, a philosopher master in Confucian thought, expounds upon "Wang Dao," (the Kingly way) delineating a gradually expanding process. Individuals must embark on the journey of self-cultivation. Subsequently, harmony will grace their family, succeeded by adept governance of the state. Peace will be ultimately bestowed upon all beneath the heavens. Central to this philosophy is the recognition

of the world as a unified community of shared interests, wherein individuals bear ultimate concern and responsibility. Acknowledging diversity as inherent and opposing coercive suppression, this worldview advocates for harmonious coexistence, fostering a mutually interconnected destiny among individuals, societies, and nature. In essence, "Wang Dao" rejects hegemonic approaches to conflict resolution, advocating instead for moderation, dialogue-driven comprehension, and empathetic negotiation.

In 2018, FCCSD (the Foundation of Chinese Culture for Sustainable Development) released the first edition of the "Wang Dao Sustainable Development Index" (WDSI). The core concept of the WDSI is derived from Mencius's proposition of the "Wang Dao," which emphasizes "pursuing personal growth and development while also contributing to the survival and well-being of others." These principles offer invaluable insights for the United Nations' sustainable development objectives.

Reinterpreted through a modern lens, the "Wang Dao" encompasses five core tenets: benevolent governance, anti-hegemony, people-orientedness, sustainability, and empathy. These elements not only enrich the discourse on global human development but also serve as integral components of effective national governance strategies.

Benevolence Governance

In the implementation of politics, the focus is on the people, emphasizing benevolence. Mencius said: "To govern with benevolence leads to kingship that cannot be opposed" (Gongsun Chou I); he also stated: "If a king administers benevolently to his people, reducing punishments and lightening taxes" (Liang Hui Wang I); "The way to win the world is by winning the people, for with the people comes the world" (Li Lou I); "The affairs of the people cannot be delayed" (Teng Wen Gong I).

Anti-hegemony

Practicing benevolence through virtue and winning people over with virtue is what Confucianism seeks for balance and harmony. "Those who use force to feign benevolence become tyrants, and a tyrant must have a large state. Those who practice benevolence through virtue become kings, and a king does not need to be large, as Tang ruled with seventy li, and King Wen with a hundred li. To subdue people by force is to subdue their bodies but not their hearts, and such force is not enough. To win people over with virtue is to truly win their hearts, just as the seventy disciples sincerely followed Confucius."

People- orientedness

Different from democratic thought, Confucianism emphasizes the principle of the people as the foundation, focusing more on "what the people desire." Mencius said: "He who delights in the joy of the people will be delighted by the people; he who mourns the sorrows of the people will be mourned by the people. To rejoice with the world, to mourn with the world, yet not to become a king, such has not happened." He also mentioned: "What the people desire, give it to them; gather them; what they detest, do not impose it upon them" (Li Lou I).

Sustainability

The culture of Wang Dao values "moderation," "measure," and "intergenerational justice," thus the concept and practice of ecological sustainability are our essential criteria for evaluation. Confucianism advocates "not missing the farming seasons ensures the grains cannot be eaten in entirety; not overfishing preserves the fish and turtles in abundance; using axes and saws in the forests at the right times ensures the wood cannot be used up. That grains and fish cannot be eaten in entirety, and wood cannot be used up, ensures that people can live and die without regrets. Living and dying without regrets is the beginning of the way of the king" (Mencius, Liang Hui Wang I).

Empathy

Set apart from the Western-centric values, where superpowers often enforce their will upon others, sometimes even through coercion, the Wang Dao culture advocates the universal value of "not imposing on others what you would not desire for yourself," which is diverse and inclusive. Empathy is also a form of "compassion." "With a compassionate heart, govern with a policy of compassion, and the world can be held in the palm of your hand" (Gongsun Chou I).

The synthesis of five key elements has identified three major domains essential for humanity's sustainable development in the 21st century: "Global Ethics," "Inclusive Development," and "Environmental Equilibrium." These areas further expand into 11 dimensions and 64 indicators, distributed as 15, 32, and 17 indicators across each respective domain, closely aligning with the United Nations' system for "Sustainable Development goals" (refer to Figure 2). ◦

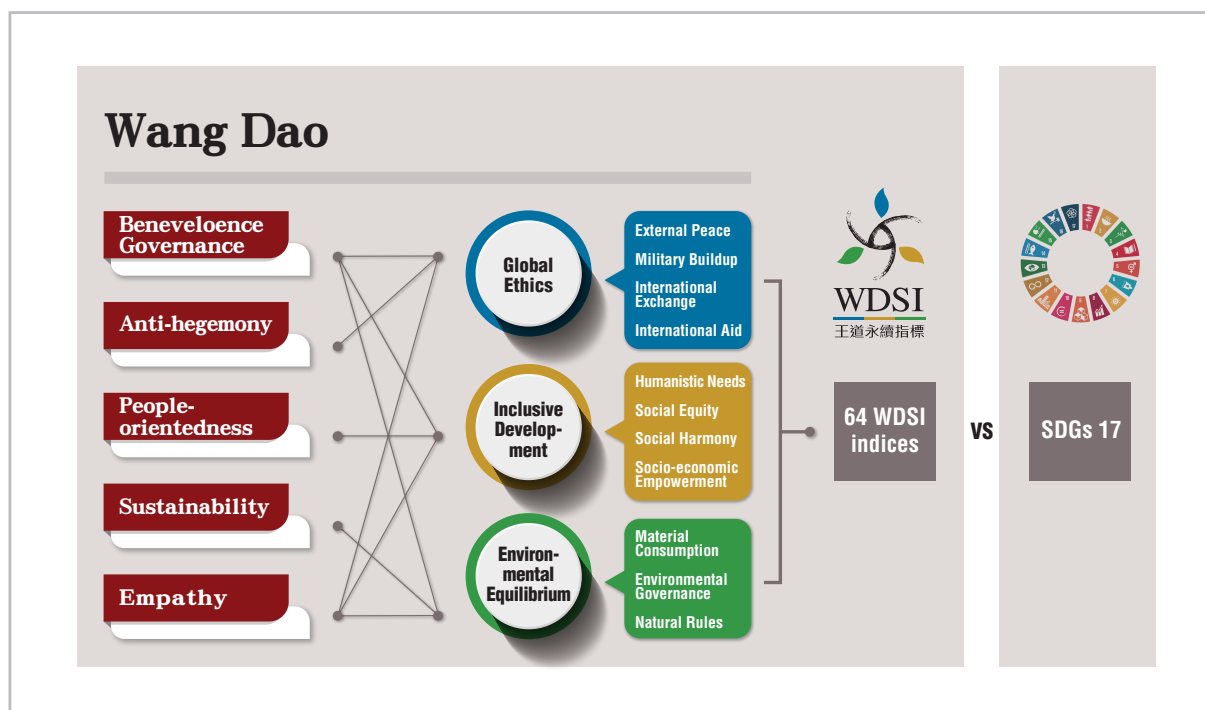


Figure 2 | Wang Dao Core Elements and WDSI Relationship Diagram

By 2023, the "Wang Dao Sustainability Index" (WDSI) has expanded its scope to include 169 countries/economies, demonstrating the index's growing global influence and participation. This upward trend reflects the increasing international attention towards sustainable development issues. Since its inception in 2018, the WDSI has seen its survey scale expand from the initial 74 participating countries/economies to 97 in 2020, 145 in 2021, 162 in 2022, and now 169, ensuring the breadth and comprehensiveness of its research.

It is crucial to highlight that despite the expanded survey range, the WDSI has consistently maintained its methodological approach in comprehensive analysis. From the beginning, the WDSI has utilized 64 individual or composite indicators for its analyses while preserving the proportional weight of various domain issues, aiding in the consistency and comparability of cross-national comparisons.

The 2023 WDSI report encompasses 37 developed economies and 132 emerging economies, distributed across the globe as follows: 47 in Europe and Central Asia, 23 in East Asia and the Pacific, 8 in South Asia, 2 in North America, 27 in Latin America and the Caribbean, 19 in the Middle East and North Africa, and 44 in Sub-Saharan Africa (see Figure 3). The survey scope of the WDSI now broadly covers all regions, particularly the emerging economies. Overall, the growth and ongoing refinement of the WDSI underscore its commitment to providing in-depth, accurate, and influential assessments of sustainable development, promoting the sustainable development agenda worldwide. It aims to offer an alternative and objective reference point for policymakers globally, especially those in developing countries striving to forge paths toward sustainable development, facilitating an understanding of the current state of societal sustainability and the formulation of more forward-looking and effective policies.

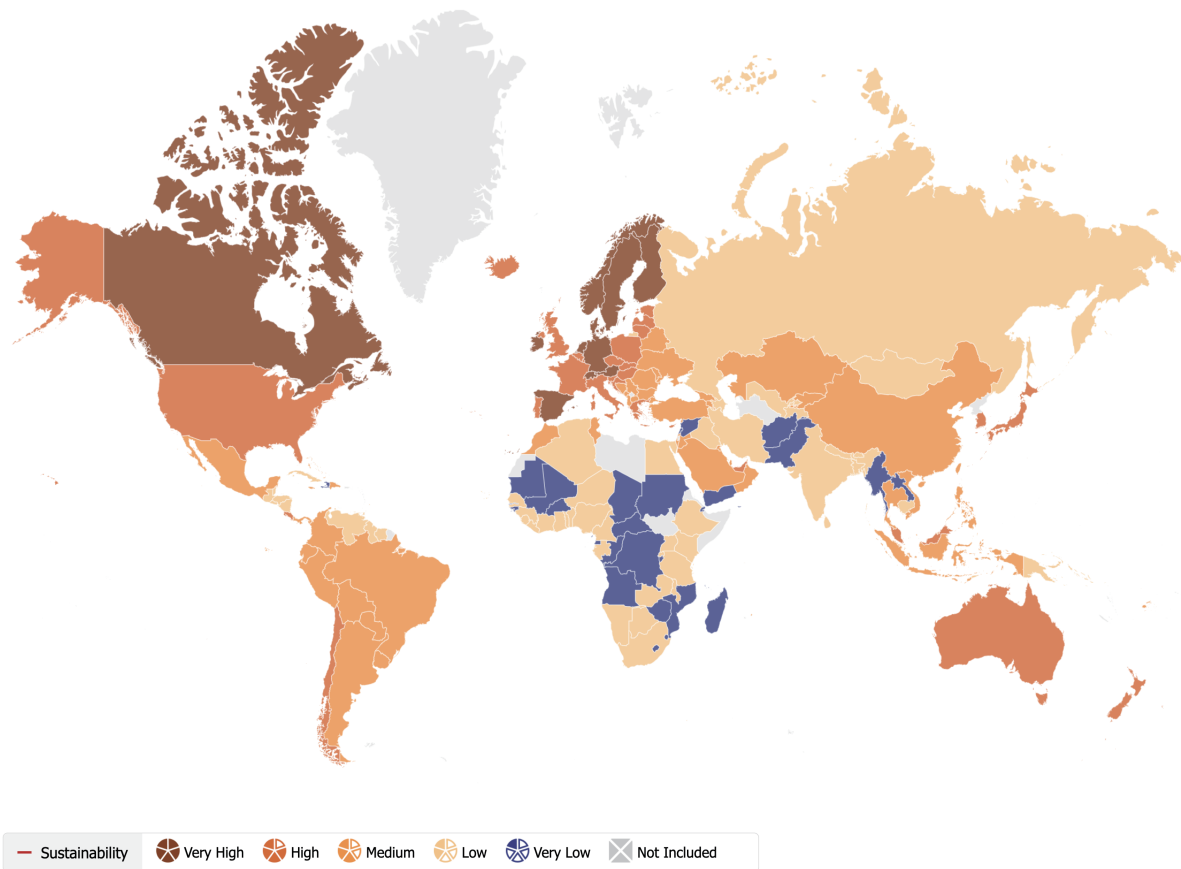


Figure 3 | 2023 WDSI global map

3 The 2023 WDSI Overview

3-1 Overall ratings

The overall WDSI ratings for 2023, including the three domains of "Global Ethics," "Inclusive Development," and "Environmental Equilibrium," are detailed in Table 1 below.

Table 1 | 2023 WDSI rankings

WDSI Rankings	WDSI Scores	Entity	GE RK	ID RK	EE RK	WDSI Rankings	WDSI Scores	Entity	GE RK	ID RK	EE RK	WDSI Rankings	WDSI Scores	Entity	GE RK	ID RK	EE RK
1	8.789	Sweden	3	3	1	57	6.417	Thailand	40	51	168	112	5.484	Namibia	136	110	84
2	8.698	Denmark	8	1	4	58	6.409	Serbia	74	49	157	114	5.482	Cote d'Ivoire	71	120	104
3	8.573	Finland	14	6	2	59	6.391	Albania	107	57	84	115	5.445	Guyana	131	118	60
4	8.568	Ireland	1	7	11	60	6.339	Moldova	88	59	110	116	5.443	Cambodia	120	112	119
5	8.539	Switzerland	6	8	5	61	6.333	Kuwait	82	48	165	117	5.406	Cuba	166	96	127
6	8.469	Norway	11	5	9	62	6.294	Armenia	151	44	139	118	5.367	Iran	98	107	163
7	8.411	Austria	4	9	7	63	6.284	Mexico	25	92	72	119	5.323	Brunei Darussalam	135	108	151
8	8.339	Netherlands	6	4	36	64	6.260	Qatar	116	55	149	120	5.320	Niger	97	128	96
9	8.260	Germany	2	10	22	65	6.255	Tunisia	88	79	28	121	5.302	Cameroon	62	139	60
10	8.013	Spain	5	16	38	66	6.234	Maldives	159	69	22	122	5.286	Tajikistan	124	114	156
10	8.013	Canada	9	19	19	67	6.221	Bahamas	113	62	110	123	5.281	Nepal	92	123	143
12	7.995	France	17	17	15	67	6.221	Dominican Rep.	55	82	57	124	5.253	Uganda	71	133	119
13	7.982	Czechia	13	22	13	69	6.208	Ukraine	61	78	65	125	5.245	Benin	107	126	130
14	7.948	United Kingdom	28	13	13	70	6.195	Kazakhstan	66	60	162	125	5.245	Suriname	162	132	22
15	7.938	Iceland	74	2	22	71	6.193	Mauritius	104	65	119	127	5.232	Papua New Guinea	116	142	32
16	7.932	Belgium	10	14	52	72	6.188	Bolivia	98	88	17	128	5.232	Ethiopia	48	145	96
17	7.888	Estonia	38	19	9	73	6.172	Colombia	62	87	52	129	5.216	Nigeria	40	139	138
18	7.880	New Zealand	23	15	28	73	6.172	Philippines	53	93	32	130	5.198	Togo	107	122	151
19	7.849	Italy	12	23	43	75	6.167	Kyrgyz	87	73	84	131	5.193	Solomon Islands	141	121	115
20	7.810	Slovenia	34	12	52	76	6.164	Bosnia and Herzegovina	92	61	153	132	5.190	Malawi	66	141	84
21	7.737	Australia	28	11	78	77	6.151	Oman	124	58	153	133	5.169	Venezuela	98	131	119
22	7.734	Portugal	25	18	52	78	6.141	Ecuador	71	80	70	134	5.159	Sierra Leone	98	134	104
23	7.732	Latvia	58	28	3	79	6.096	Montenegro	130	68	108	135	5.148	Rwanda	98	129	149
24	7.685	Poland	21	27	32	80	6.089	Fiji	127	98	8	136	5.141	Liberia	76	136	110
25	7.664	Japan	23	30	21	81	6.081	Barbados	141	63	110	137	5.138	Iraq	128	116	164
26	7.583	Slovakia	30	33	18	82	6.063	Jamaica	113	71	124	138	5.047	Gabon	155	127	135
27	7.560	Luxembourg	20	35	22	82	6.063	Jordan	116	83	47	139	5.008	Zambia	59	155	93
28	7.555	Malta	34	26	44	84	6.042	North Macedonia	136	63	143	140	5.000	Guinea	95	153	65
29	7.529	Lithuania	53	31	12	85	6.036	Morocco	76	95	38	141	4.971	Mozambique	113	152	65
30	7.435	Cyprus	76	24	36	86	6.031	Paraguay	62	90	81	142	4.951	Burkina Faso	120	137	135
30	7.435	South Korea	22	32	74	87	5.977	Honduras	45	111	35	143	4.922	Lebanon	82	150	130
32	7.427	Hungary	19	38	44	88	5.943	India	36	103	104	143	4.922	Gambia	141	124	167
33	7.393	United States	49	25	64	89	5.927	Bangladesh	76	97	60	145	4.898	Angola	141	155	38
34	7.263	Croatia	70	28	57	90	5.924	Ghana	40	113	50	146	4.893	Mali	131	148	84
35	7.247	Singapore	52	42	6	91	5.911	Seychelles	155	72	93	147	4.875	Congo, Dem. Rep.	82	157	108
36	7.115	Chile	49	39	47	92	5.891	South Africa	25	101	153	148	4.859	Myanmar	149	144	96
37	7.115	United Arab Emirates	15	40	135	93	5.883	Senegal	55	100	90	149	4.828	Madagascar	104	149	147
38	7.104	Greece	49	36	84	94	5.844	El Salvador	66	99	90	150	4.826	Guinea-Bissau	162	147	77
39	7.089	Malaysia	30	43	47	95	5.836	Sri Lanka	92	105	50	151	4.823	Mauritania	107	158	96
40	7.063	Costa Rica	88	41	19	96	5.820	Mongolia	122	74	158	152	4.818	Pakistan	104	151	143
41	6.964	Taiwan	76	34	124	97	5.799	Uzbekistan	95	91	130	153	4.802	Djibouti	164	142	96
42	6.964	Israel	148	21	127	98	5.781	Russia	159	81	78	154	4.794	Congo, Rep.	107	159	104
43	6.935	Uruguay	62	37	124	99	5.737	Azerbaijan	140	84	110	155	4.784	Equatorial Guinea	141	154	78
44	6.932	Romania	47	47	44	99	5.737	Cabo Verde	141	104	28	156	4.781	Lesotho	131	135	161
45	6.773	Bulgaria	55	46	81	101	5.719	Kenya	37	117	96	157	4.763	Zimbabwe	91	160	115
46	6.768	China	40	51	72	102	5.716	Trinidad and Tobago	107	85	158	158	4.727	Lao PDR	166	138	130
47	6.732	Peru	44	70	16	103	5.706	Bahrain	129	89	130	159	4.698	Chad	82	163	115
48	6.685	Argentina	30	50	139	104	5.688	Algeria	139	94	74	160	4.674	Comoros	159	164	27
49	6.669	Georgia	116	44	57	105	5.604	Egypt	76	115	81	161	4.617	Eswatini	155	146	158
50	6.596	Saudi Arabia	38	53	143	106	5.602	Belize	81	106	56	162	4.596	Burundi	124	161	139
51	6.586	Brazil	33	76	28	107	5.568	Nicaragua	82	119	65	163	4.443	Haiti	131	165	127
52	6.576	Belarus	122	54	42	108	5.555	Tanzania	59	124	74	164	4.279	Syrie	158	162	165
53	6.549	Panama	66	66	38	109	5.549	Timor-Leste	136	109	65	165	4.260	Central African Rep.	151	167	119
54	6.487	Vietnam	98	56	70	110	5.523	Bhutan	168	86	139	166	4.245	Afghanistan	164	168	96
55	6.443	Indonesia	15	75	115	111	5.492	Botswana	151	101	103	167	4.216	Yemen	151	166	148
56	6.427	Turkey	18	77	93	112	5.484	Guatemala	45	130	90	168	3.841	Sudan	149	169	169

In the overall ranking of the top 30, advanced European countries dominate, comprising 26 entries, including the Mediterranean island nation of Malta. Notably, the representation of non-European countries within the top 30 has diminished. Among the top 20, the only two non-European countries are Canada (ranked 10th) and New Zealand (ranked 18th), yet they are still broadly classified as Western nations. European countries have evidently taken the lead in managing the pandemic crisis and in the swift restoration of societal functions.

The top five countries in the WDSI, comprising Sweden, Denmark, Finland, Ireland, and Switzerland, are detailed further across the three WDSI domains of "Global Ethics (GE)," "Inclusive Development (ID)," and "Environmental Equilibrium (EE)" in Table 2. The 2023 edition's top five are almost exclusively occupied by European countries, with Canada ranking fifth in "Global Ethics" and the rest being high-income European nations. The top three are dominated by the consistently high-performing Nordic countries, especially Sweden and Denmark, which have maintained the first and second positions for the second consecutive year. The results affirm a consistent conclusion: Nordic countries play a crucial role, emphasizing individual responsibility, equitable social distribution, and achieving

comprehensive development without sacrificing the natural environment or the rights of future generations, establishing a universal paradigm for sustainable development.

	WDSI	GE	ID	EE
1	Sweden	Ireland	Denmark	Sweden
2	Denmark	Germany	Iceland	Finland
3	Finland	Sweden	Sweden	Latvia
4	Ireland	Austria	Netherlands	Denmark
5	Switzerland	Canada	Norway	Switzerland

	WDSI	GE	ID	EE
-5	Syrie		Haiti	Kuwait
-4	Central African Rep.	Afghanistan Djibouti	Yemen	Syrie
-3	Afghanistan		Central African Rep.	Lebanon
-2	Yemen	Cuba Laos	Afghanistan	Thailand
-1	Sudan	Bhutan	Sudan	Sudan

Table 2 | Top and bottom five in 2023 WDSI overall and its three domains

NOTE
 2. Situated in Southern Europe, Malta is categorized within the Middle East and North Africa region by the World Bank's geographical classification. However, in terms of its social systems and culture, it aligns more closely with Europe, being a member of the European Union (EU), Schengen Area, Eurozone, and the Commonwealth of Nations.

The bottom 30 countries in the WDSI rankings are predominantly located in the Saharan region of Africa, accounting for 21 nations. The remainder includes countries from Asia such as Laos, Myanmar, Afghanistan, and Pakistan; from the Middle East, including Yemen, Syria, Djibouti, and Lebanon; and Haiti from Latin America. These nations are mostly low-income or war-torn regions.

Sudan, ranking last, was once the largest country in Africa until the secession and independence of South Sudan in 2011. With a current population of about 45 million, Sudan has long been beleaguered by internal political and armed conflicts, severely impacting its economic and social development. This includes high inflation rates, foreign exchange shortages, rising poverty, ongoing desertification, and challenges in water resource management. Sudan's performance in "Inclusive Development" and "Environmental Equilibrium" significantly lags behind. In May 2023,

Sudan faced a severe outbreak of civil war, with the United Nations estimating nearly a million refugees fleeing to neighboring countries, casting a shadow over the sustainable development of the nation and the region.

Undoubtedly, national wealth is considered a crucial resource for sustainable development. Low-income nations encounter a myriad of obstacles on the path to sustainability, grappling with the fundamental challenges of hunger, poverty, and insufficient public services. As countries prepare for post-pandemic recovery, emerging nations seem to be left in a predicament of escalating pressures, including extreme weather and inflation-induced food and energy shortages. Yet, these countries have not fully adopted big data management in governance, a significant gap by international standards. This situation complicates efforts by external observers to understand the current struggles of these emerging countries.

The 2023 "Wang Dao Sustainability Index" (WDSI) scores line charts for overall and the three domains across 169 countries/economies (including Hong Kong) are displayed in Figure 4. Within the WDSI framework, the three domains—distinct yet complementary—emphasize different attributes. The "Inclusive Development" domain, representing economic momentum and social justice, carries significant weight and substantially influences the overall results. In 2023, countries leading in sustainable development showed advanced

performance in "Global Ethics" and "Inclusive Development," with "Environmental Equilibrium" notably below average. Conversely, countries in the latter half excelled in "Global Ethics" and "Environmental Equilibrium" but fell substantially below the standard in "Inclusive Development." These variations highlight the diverse strengths and challenges nations face within the WDSI's three domains, reflecting the current state and trends in global sustainability.

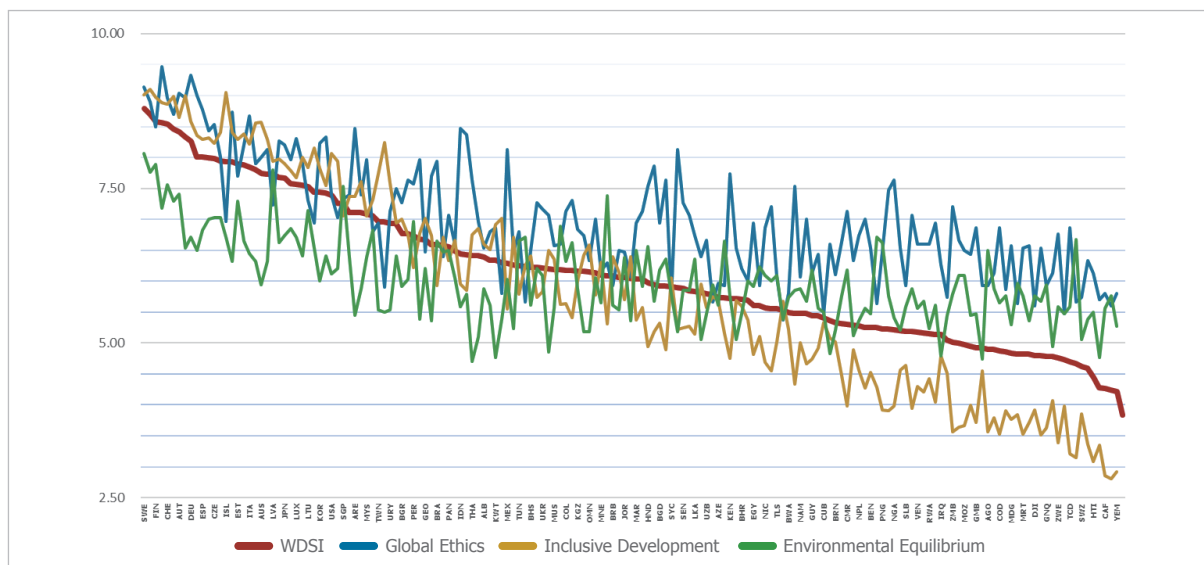


Figure 4 | 2023 WDSI overall and domain scores line chart

BOX Dialogue between sustainable development and Chinese Culture

The establishment of the Tang Prize in Sustainable Development

In the face of escalating global challenges like climate change, emerging diseases, and frequent conflicts, Eastern cultural philosophies have become increasingly pivotal in shaping the new world order. In response, Taiwan inaugurated the Tang Prize in 2012, inspired by the Nobel Prize's ethos and the illustrious values of China's Tang dynasty. The Prize spans sustainable development, biopharmaceutical Science, sinology, and rule of law, honoring those who have made significant global contributions. Drawing from the rich tapestry of Chinese cultural heritage and the synthesis of Eastern and Western values, the Tang Prize is a beacon of actionable solutions for contemporary society, championing sustainable progress.

Dr. Yin Yen-Liang, a Taiwanese entrepreneur and the Prize's founder, committed to societal benefit, has long supported education and philanthropy, establishing the Tang Prize Foundation. The Tang Prize in Sustainable Development,

rooted in Chinese culture and Confucian thought, emphasizes actionable solutions to real-world issues, focusing on policy, energy, climate change, ecology, and environmental conservation. It celebrates researchers whose groundbreaking work supports humanity's sustainable future on Earth.

Laureates of the Tang Prize in Sustainable Development have addressed diverse challenges with systemic thinking and comprehensive action, including climate change, infectious diseases, food security, and socioeconomic disparities. The Prize encourages global talents to contribute to a sustainable future.

By its tenth anniversary in 2022, the Tang Prize faced intensified challenges from extreme weather, energy crises, and the socioeconomic fallout of the COVID-19 pandemic, highlighting the extraordinary significance of its fifth Sustainable Development Prize. Awarded in 2023 to economist Jeffrey D. Sachs, the Prize recognized his extensive contributions to the global economy, public health, justice, and sustainability, affirming the interdisciplinary practice of sustainable development.

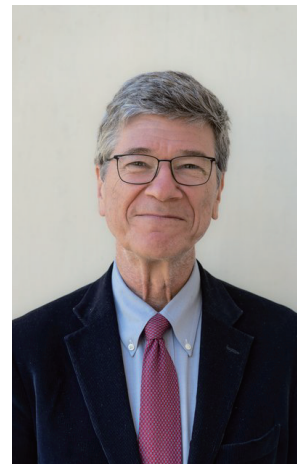
Past Laureates in SD

1. The inaugural Tang Prize in Sustainable Development (2014) was awarded to Gro Harlem Brundtland, known as the "Mother of Sustainability," for her innovative leadership and practical application of sustainable development principles, including her essential role in establishing key agreements like the United Nations Framework Convention on Climate Change.
2. The second award (2016) honored Arthur Rosenfeld, the father of energy efficiency, whose technologies significantly reduced global energy consumption and greenhouse gas emissions, making a unique and substantial contribution to sustainable human development.
3. Climate change experts James Hansen and Veerabhadran Ramanathan were jointly awarded the third Tang Prize (2018) for their groundbreaking research on climate change and its impacts on global sustainability, laying a crucial scientific foundation for addressing global sustainability issues.
4. The fourth Tang Prize (2020) was presented to Dr. Jane Goodall for her dedication to primatology and environmental conservation, prompting a reevaluation of the relationship between humans and nature, and laying an essential groundwork for advancing global sustainable development.

Dr. Sachs Awarded the Tang Prize in Sustainable Development

Jeffrey D. Sachs

Dr. Sachs, Director of the Center for Sustainable Development at Columbia University and Chair of the UN Sustainable Development Solutions Network (SDSN), has been recognized for his pioneering work in clinical economics, aiding numerous countries in overcoming financial challenges. He has led the UN Millennium Project and contributed to the Sustainable Development Goals (SDGs) and the Paris Climate Agreement, advocating for ambitious carbon reduction and global energy transformation towards a more sustainable society.



Delayed due to Taiwan's handling of the pandemic, the fifth Tang Prize ceremony took place on August 2, 2023, focusing on "Dialogue and Sustainable Development." In Taiwan to receive the Sustainable Development Prize, Dr. Sachs shared insights in his acceptance speech. He highlighted two pivotal strategies for Taiwan's governance toward sustainable development and energy transition: firstly, emphasizing the need for comprehensive long-term planning, while pointing out the flaws in Taiwan's 2025 energy strategy's dependency on fossil fuels; secondly, advocating for strengthened regional collaboration to foster mutual advantages and peace.

Dialogue with Chinese Culture

Moreover, Dr. Sachs contributed to the "Global Forum for the Common Good" organized by the Taiwan-based Tzu Chi Foundation, presenting on "Economic Justice and Environmental Sustainability." Sachs posited that the path to sustainable development requires an earnest engagement with the spiritual realm, integrating the ethical insights of Aristotle, Buddha, and Confucius. He suggested adopting Aristotle's rational thought for action, learning from Buddha's compassion and spirit of suffering, and applying Confucius's humanistic view that "within the four seas, all men are brothers." This pragmatic offers an effective approach to today's challenges and establish a groundwork for a fairer future.

The Tzu-Chi Foundation

Grounded in religious convictions, Tzuchi operates as an international non-profit dedicated to the realms of charity, healthcare, education, and humanities. It upholds the ethos of mutual benevolence and collective accountability. By hosting the Global Forum for the Common Good, the Foundation brings together diverse perspectives on the global economy, public health, fairness, justice, and sustainability. It encourages dialogue among international and interdisciplinary collaborators, aiming to address societal challenges and contribute to global sustainability.

During the forum's dialogue, Dr. Liu Chao-Hsien, Chairman of the Chinese Cultural Sustainability Foundation, introduced the "Wang Dao Sustainability Index" (WDSI), rooted in Chinese cultural ethos. This index, reinterpreting the ancient "WangDao" philosophy, encompasses five core elements: benevolent governance, counter-hegemony, people-orientedness, sustainability, and empathy. These elements lay the groundwork for three domains: "Global Ethics," "Inclusive Development," and "Environmental Equilibrium," directly addressing contemporary challenges such as poverty, environmental justice, and national security, as outlined by Sachs. The WDSI provides comprehensive philosophical insights and offers a governance model, enriching global sustainability dialogue with its distinct, culturally-informed perspective.

Dr. Sachs has demonstrated a significant interest in the WDSI, especially noting its smaller number of indicators relative to the United Nations Sustainable Development Goals Index (SDGI), yet yielding highly correlated research outcomes. He considers the exploration of sustainable development grounded in Chinese culture to be an innovative approach. He has also expressed a willingness to engage in and support the international dissemination of the WDSI. This collaboration aims not only to enhance the research's impact but also to promote cross-cultural dialogue and cooperation, advancing the global sustainable development agenda.

3-2 Results by group

3-2-1 Results by region

Upon reviewing the World Bank's classification of global geographical regions, it becomes evident that certain regions encompass countries with considerable disparities in culture and development levels. For example, the East Asia and Pacific region, while geographically cohesive, includes countries with starkly different cultural backgrounds, such as Australasia with its Western cultural influences and East Asian nations deeply rooted in Confucianism and Buddhism. In a similar vein, the Europe and Central Asia region present a wide disparity in development levels, particularly between Western and Eastern Europe, complicating uniform assessments. Consequently, our analysis proposes a more nuanced categorization and examination of both the East Asia and Pacific as well as the Europe and Central Asia regions. Within this construct, we rigorously assess the annual outcomes and longitudinal trends within these regions as measured by the WDSI, thereby reflecting their distinct landscapes.

Trend analysis reveals that the areas with the most significant developmental growth are South Asia, Western Europe, and North America. South Asia has demonstrated robust growth, though it remains to be

seen if this resurgence reaches pre-pandemic levels, given the substantial downturn during the pandemic. Western European countries, consistently high performers, continue to lead in the 2023 report, surpassing most other regions in both annual performance and growth trends. Conversely, negative growth was observed in three regions: East Asia, Eastern Europe and Central Asia, as well as Latin America and the Caribbean, with the decline in East Asia being particularly notable. Changes in these areas were mainly influenced by the "Inclusive Development" domain, with further in-depth analysis and discussion to follow in our report.

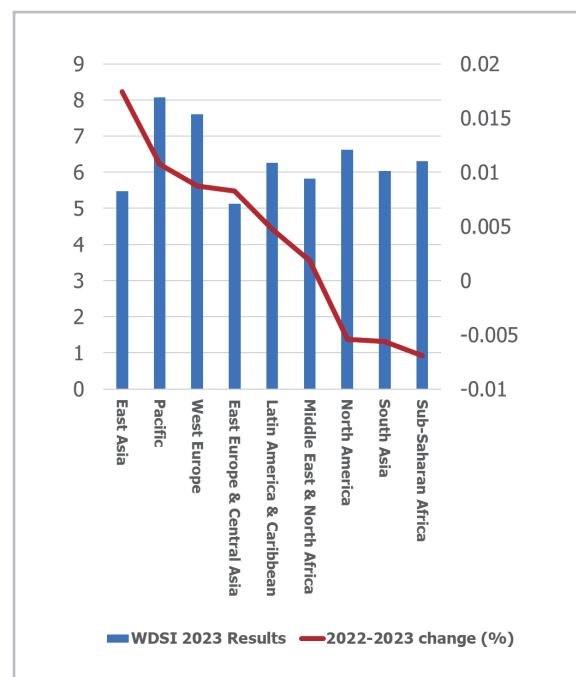
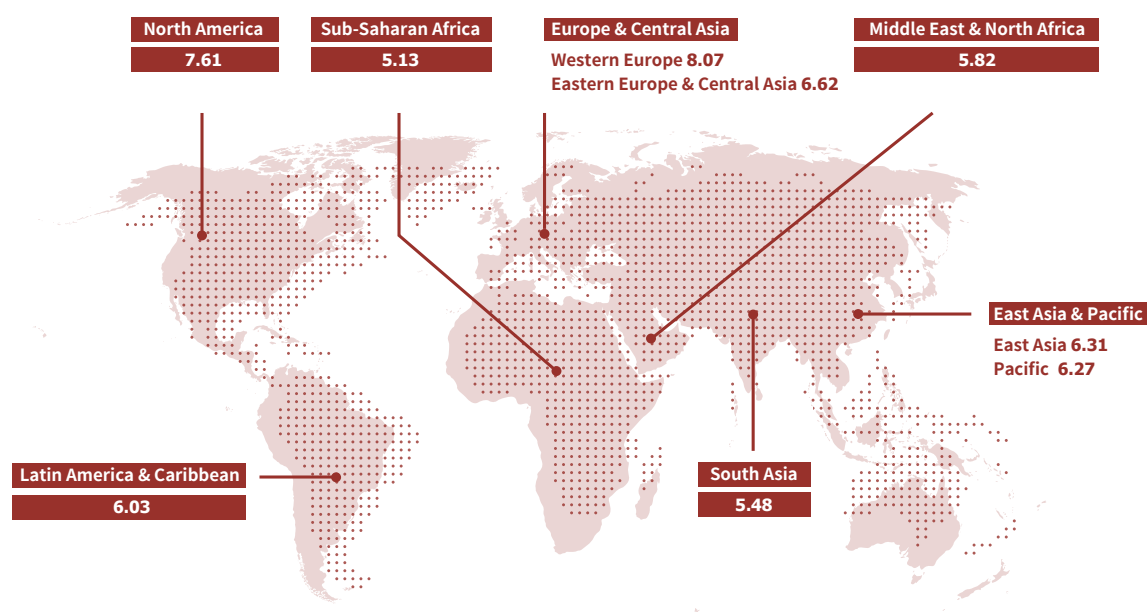


Figure 5 | 2023 WDSI regional results and annual changes

Table 3 | 2023 WDSI regional results

Region Classification	Detailed Items	Number of countries	2023 Results	2022-2023 Score Changes	2022-2023 Score Changes (%)
East Asia & Pacific	East Asia	17	6.31	-0.044	-0.69%
	Pacific	6	6.27	0.030	0.48%
Europe & Central Asia	Western Europe	21	8.07	0.087	1.07%
	Eastern Europe & Central Asia	26	6.62	-0.036	-0.54%
Latin America & Caribbean		27	6.03	-0.034	-0.56%
Middle East & North Africa		19	5.82	0.011	0.18%
North America		2	7.61	0.066	0.87%
South Asia		8	5.48	0.095	1.74%
Sub-Saharan Africa		44	5.13	0.043	0.88%


Figure 6 | 2023 WDSI regional results

3-2-2 Results by income level

Table 4 | 2023 WDSI ranking by income level and development group

High-income economies (54)					Upper-middle-income economies (42)				
		Scores	Group RK	WDSI RK		Scores	Group RK	WDSI RK	
Sweden	SWE	8.79	1	1	Malaysia	MYS	7.09	1	39
Denmark	DNK	8.70	2	2	Costa Rica	CRI	7.06	2	40
Finland	FIN	8.57	3	3	Bulgaria	BGR	6.77	3	45
Ireland	IRL	8.57	4	4	China	CHN	6.77	4	46
Switzerland	CHE	8.54	5	5	Peru	PER	6.73	5	47
Norway	NOR	8.47	6	6	Argentina	ARG	6.68	6	48
Austria	AUT	8.41	7	7	Georgia	GEO	6.67	7	49
Netherlands	NLD	8.34	8	8	Brazil	BRA	6.59	8	51
Germany	DEU	8.26	9	9	Belarus	BLR	6.58	9	52
Canada	ESP	8.01	10	10	Indonesia	IDN	6.44	10	55
Spain	CAN	8.01	10	10	Türkiye	TUR	6.43	11	56
France	FRA	7.99	12	12	Thailand	THA	6.42	12	57
Czechia	CZE	7.98	13	13	Serbia	SRB	6.41	13	58
United Kingdom	GBR	7.95	14	14	Albania	ALB	6.39	14	59
Iceland	ISL	7.94	15	15	Moldova	MDA	6.34	15	60
Belgium	BEL	7.93	16	16	Armenia	ARM	6.29	16	62
Estonia	EST	7.89	17	17	Mexico	MEX	6.28	17	63
New Zealand	NZL	7.88	18	18	Maldives	MDV	6.23	18	66
Italy	ITA	7.85	19	19	Dominican Republic	DOM	6.22	19	67
Slovenia	SVN	7.81	20	20	Kazakhstan	KAZ	6.20	20	70
Australia	AUS	7.74	21	21	Mauritius	MUS	6.19	21	71
Portugal	PRT	7.73	22	22	Colombia	COL	6.17	22	73
Latvia	LVA	7.73	23	23	Bosnia and Herzegovina	BIH	6.16	23	76
Poland	POL	7.68	24	24	Ecuador	ECU	6.14	24	78
Japan	JPN	7.66	25	25	Montenegro	MNE	6.10	25	79
Slovakia	SVK	7.58	26	26	Fiji	FJI	6.09	26	80
Luxemburg	LUX	7.56	27	27	Jamaica	JAM	6.06	27	82
Malta	MLT	7.55	28	28	North Macedonia	MKD	6.04	28	84
Lithuania	LTU	7.53	29	29	Paraguay	PRY	6.03	29	86
Cyprus	KOR	7.43	30	30	South Africa	ZAF	5.89	30	92
South Korea	CYP	7.43	30	30	El Salvador	SLV	5.84	31	94
Hungary	HUN	7.43	32	32	Russia	RUS	5.78	32	98
United States	USA	7.39	33	33	Azerbaijan	AZE	5.74	33	99
Croatia	HRV	7.26	34	34	Belize	BLZ	5.60	34	106
Singapore	SGP	7.25	35	35	Botswana	BWA	5.49	35	111
Chile	CHL	7.11	36	36	Guatemala	GTM	5.48	36	112
United Arab Emirates	ARE	7.11	37	37	Namibia	NAM	5.48	37	112
Greece	GRC	7.10	38	38	Cuba	CUB	5.41	38	117
Taiwan	TWN	6.96	39	41	Suriname	SUR	5.24	39	125
Israel	ISR	6.96	40	42	Iraq	IRQ	5.14	40	137
Uruguay	URY	6.93	41	43	Gabon	GAB	5.05	41	138
Romania	ROU	6.93	42	44	Equatorial Guinea	GNQ	4.78	42	155
Saudi Arabia	SAU	6.60	43	50					
Panama	PAN	6.55	44	53					
Kuwait	KWT	6.33	45	61					
Qatar	QAT	6.26	46	64					
Bahamas	BHS	6.22	47	67					
Oman	OMN	6.15	48	77					
Barbados	BRB	6.08	49	81					
Seychelles	SYC	5.91	50	91					
Trinidad and Tobago	TTO	5.72	51	102					
Bahrain	BHR	5.71	52	103					
Guyana	GUY	5.45	53	115					
Brunei Darussalam	BRN	5.32	54	119					

Lower-middle-income economies (49)		Scores	Group RK	WDSI RK
Vietnam	VNM	6.49	1	54
Tunisia	TUN	6.26	2	65
Ukraine	UKR	6.21	3	69
Bolivia	BOL	6.19	4	72
Philippines	PHL	6.17	5	73
Kyrgyz Republic	KGZ	6.17	6	75
Jordan	JOR	6.06	7	82
Morocco	MAR	6.04	8	85
Honduras	HND	5.98	9	87
India	IND	5.94	10	88
Bangladesh	BGD	5.93	11	89
Ghana	GHA	5.92	12	90
Senegal	SEN	5.88	13	93
Sri Lanka	LKA	5.84	14	95
Mongolia	MNG	5.82	15	96
Uzbekistan	UZB	5.80	16	97
Cabo Verde	CPV	5.74	17	99
Kenya	KEN	5.72	18	101
Algeria	DZA	5.69	19	104
Egypt	EGY	5.60	20	105
Nicaragua	NIC	5.57	21	107
Tanzania	TZA	5.55	22	108
Timor-Leste	TLS	5.55	23	109
Bhutan	BTN	5.52	24	110
Cote d'Ivoire	CIV	5.48	25	114
Cambodia	KHM	5.44	26	116
Iran	IRN	5.37	27	118
Cameroon	CMR	5.30	28	121
Tajikistan	TJK	5.29	29	122
Nepal	NPL	5.28	30	123
Benin	BEN	5.24	31	125
Papua New Guinea	PNG	5.23	32	127
Nigeria	NGA	5.22	33	129
Solomon Islands	SLB	5.19	34	131
Zambia	ZMB	5.01	35	139
Guinea	GIN	5.00	36	140
Lebanon	LBN	4.92	37	143
Angola	AGO	4.90	38	145
Myanmar	MMR	4.86	39	148
Mauritania	MRT	4.82	40	151
Pakistan	PAK	4.82	41	152
Djibouti	DJI	4.80	42	153
Rep of Congo	COG	4.79	43	154
Lesotho	LSO	4.78	44	156
Zimbabwe	ZWE	4.76	45	157
Lao PDR	LAO	4.73	46	158
Comoros	COM	4.67	47	160
Eswatini	SWZ	4.62	48	161
Haiti	HTI	4.44	49	163

Low-income economies (49)		Scores	Group RK	WDSI RK
Niger	NER	5.32	1	120
Uganda	UGA	5.25	2	124
Ethiopia	ETH	5.23	3	128
Togo	TGO	5.20	4	130
Malawi	MWI	5.19	5	132
Sierra Leone	SLE	5.16	6	134
Rwanda	RWA	5.15	7	135
Liberia	LBR	5.14	8	136
Mozambique	MOZ	4.97	9	141
Burkina Faso	BFA	4.95	10	142
Gambia	GMB	4.92	11	143
Mali	MLI	4.89	12	146
Demo Rep of Congo	COD	4.88	13	147
Madagascar	MDG	4.83	14	149
Guinea-Bissau	GNB	4.83	15	150
Chad	TCD	4.70	16	159
Burundi	BDI	4.60	17	162
Syrie	SYR	4.28	18	164
Central African Republic	CAF	4.26	19	165
Afghanistan	AFG	4.24	20	166
Yemen	YEM	4.22	21	167
Sudan	SDN	3.84	22	168

NOTE: Based on the latest economic classifications by the IMF, blue font represents developed economies, while brown font signifies emerging economies. Different income level economy groups are classified according to the World Bank's grouping, divided into high-income economies, upper-middle-income economies, lower-middle-income economies, and low-income economies.

The World Bank classifies global economies into four major income groups: high-income (HIC), upper-middle-income (UMIC), lower-middle-income (LMIC), and low-income (LIC), according to the 2022 per capita Gross National Income (GNI) benchmarks.

Figure 7 illustrates the WDSI ranking range and average scores obtained by countries within these four income level groups. Insights from Table 4 and Figure 7 illustrate a notable pattern: HICs display a vast range in global standings, from 1st to 119th, involving 54 countries over 119 ranks. This variation significantly surpasses that observed within other income brackets, highlighting pronounced disparities within HICs, especially when contrasted with LMICs and LICs. Moreover, the average sustainable development score for the HIC group (7.38) distinctly outstrips those of other groups. In comparison, the discrepancy amounts to

1.27 points against the UMIC group, and the differences expand to 1.94 and 2.58 points when juxtaposed with LMICs and LICs, respectively. These findings not only underscore notable disparities in sustainable development across different income strata but also within the high-income category itself, shedding light on enduring inequalities.

This observation has triggered a series of questions: Are these disparities a result of national policy choices, or are they an inevitable stage in economic development? Exploring these questions requires more in-depth research to understand the underlying causes and their potential impacts. Future studies will be crucial in investigating the drivers behind these disparities, aiming to better comprehend the issues of inequality within the global economic system and to seek solutions.

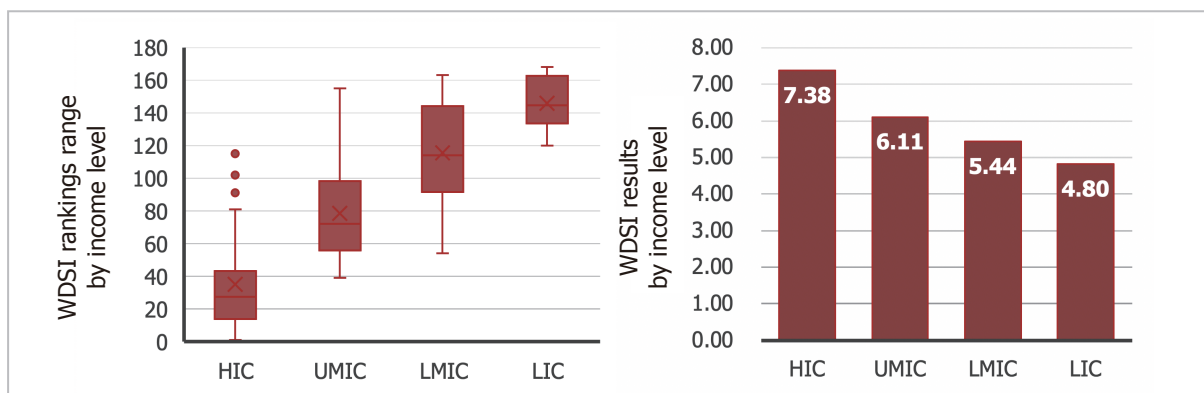


Figure 7 | Highlight of WDSI results by different income levels

3-3 Correlation between WDSI and SDGs

In 2023, a comparison between the WangDao Sustainability Index (WDSI) and the United Nations Sustainable Development Goals Index (SDGI)³ exhibited a high and positive correlation trend, as illustrated in the following diagram. The correlation coefficient reached 0.91 in 2023, maintaining a high correlation above 0.9 since the inception of the WDSI in 2018. Such a trend underscores the parallelism in how both indices evaluate countries' sustainable development performance, with consistent directions of change. It also reflects the stability and verifiability of the research framework adopted by the WDSI, effectively capturing and reflecting the sustainable development status of countries.

The three main domains of the WDSI— "Global Ethics," "Inclusive Development," and "Environmental Equilibrium," have been confirmed to encompass the essence of the 17 Sustainable Development Goals set by the United Nations. This alignment showcases the WDSI as more than a mirror of global sustainability progress; it embodies a holistic approach, consistent with the "Wang Dao" philosophy. Such consistency and correspondence make the WDSI a more comprehensive and credible assessment tool, offering robust support for the pursuit of global sustainable development goals.

Disparities revealed by points distant from the regression line highlight differences among economies according to the WDSI and the SDGI. In the right block, we observe countries ranked lower in the WDSI, including Russia (RUS), Ukraine (UKR), and Azerbaijan (AZE), affected by significant impacts from peace and war metrics within the "Global Ethics" domain. Cuba (CUB) also appears in this category, hindered by its slow recovery in global exchanges. In the left block, countries leading in the WDSI rankings are predominantly emerging economies from the developing world. Notably, members of the Gulf Cooperation Council (GCC), including the United Arab Emirates (ARE), Saudi Arabia (SAU), and Kuwait (KWT), have shown outstanding performance in the "Inclusive Development" domain, reflecting strong socio-economic empowerment and development progress. Since 2010, the GCC countries have seen stable economic growth and declining poverty, marking positive strides in sustainable socio-economic development.

NOTE

3. The Sustainable Development Goal Index (SDGI) serves as a comprehensive tool for assessing countries' progress toward the United Nations Sustainable Development Goals (SDGs), addressing global challenges such as poverty, hunger, health, education, gender equality, clean water, economic growth, and climate action. Launched in 2016 with annual updates, the SDGI report varies yearly in indicator count and survey scope based on data availability. The 2023 report analyzes data across all 17 goals, using 3 to 17 specific indicators per goal, covering 166 countries globally.

These findings highlight performance variances among countries within the WDSI and SDGI frameworks, possibly linked to their development levels or data transparency. Such disparities guide further analysis and enhancements. In essence, the WDSI's structure and execution demonstrate its effectiveness as a sustainable development assessment tool, reinforcing its global standing and providing valuable insights to help countries tackle sustainable development issues.

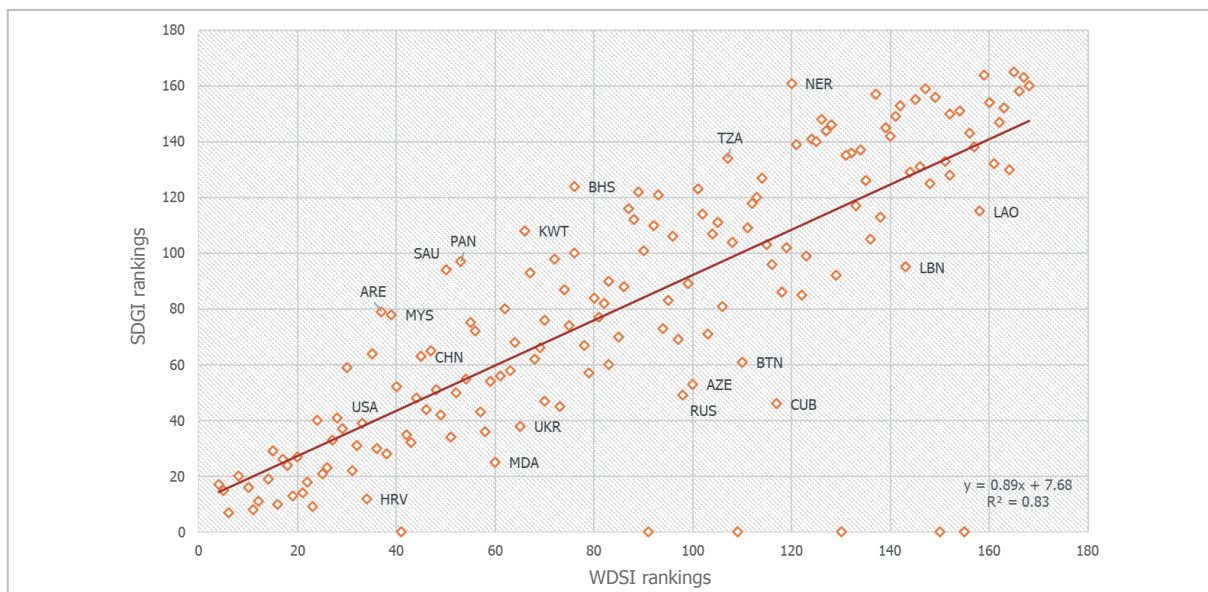


Figure 8 | 2023 WDSI and SDGI Rankings Regression Line

3-4 The year trends in WDSI

3-4-1 Trends in overall results

The 2023 WDSI survey covered 169 economies, with an average score of 6.15⁴, and scores in the three main domains of "Global Ethics," "Inclusive Development," and "Environmental Equilibrium" were 6.99, 5.84, and 5.99, respectively. The overall average score for the 2023 WDSI was 6.147, situated between Oman (ranked 77th with a score of 7.151) and Ecuador (ranked 78th with a score of 6.141), and was 0.1 points away from the median (ranked 84th with a score of 6.04). A right-skewed (positive skew) distribution indicates that developed countries still exhibit sustainability above the average. According to figure 9, the trend shows that inequality among countries peaked in 2020, marking a significant high. Subsequently, this trend of inequality began to ease, demonstrating a clear downward curve and indicating a narrowing gap between countries, moving closer to pre-pandemic levels. This shift in trend suggests that the global community is evolving towards greater equality, more optimistically than predictions made during the pandemic era.

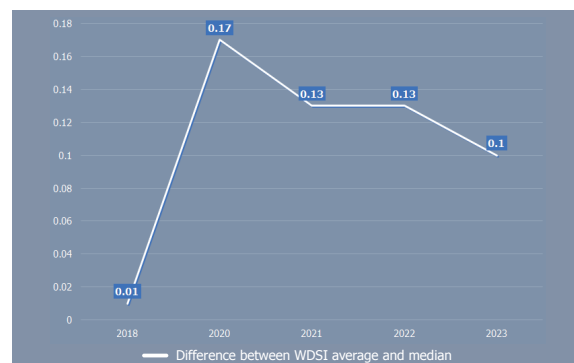


Figure 9 | Annual differences between WDSI average and median

NOTE

4. The survey's overall average score excludes Hong Kong, which only reported on "Inclusive Development" and "Environmental Equilibrium."

The WDSI has shown a declining overall performance over the years: in 2023, it was at 6.15 across 168 countries; in 2022, it stood at 6.17 for 161 countries; in 2021, it was 6.29 for 144 countries; in 2020, it reached 6.43 for 96 countries; and in 2018, it was at 6.53 for 74 countries⁵. Despite the apparent year-on-year decline in the WDSI scores, this trend is less significant when considering the increasing number of evaluated countries each year, which enlarges the base of comparison. However, when benchmarked against the previous year's total evaluations, the dynamic shifts offer clearer significance, highlighting substantial growth from 2018 to 2020, followed by a gradual decline post-2020, stabilizing after 2022. This trend reflects the global setback in sustainable development during the COVID-19 pandemic and a gradual recovery as circumstances improved, indicating a resurgence in global consensus and commitment to sustainable development, as illustrated in Figure 10.

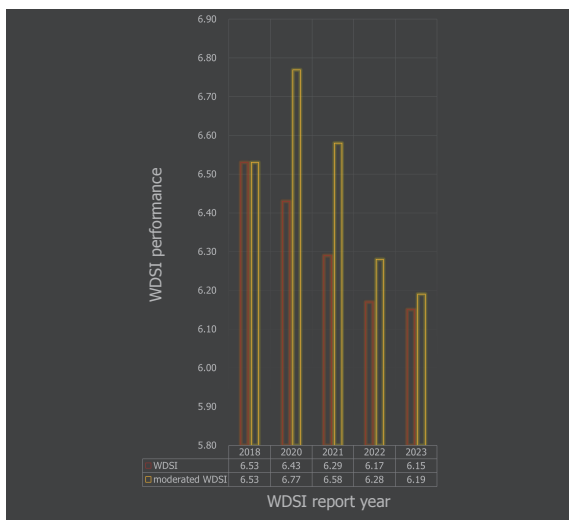


Figure 10 | Annual WDSI Performance and year-over-year comparison

WDSI and its three major domains, "Global Ethics," "Inclusive Development," and "Environmental Equilibrium," are summarized in Table 5 and Figure 11, depicting their annual variations. Notably, during the pandemic, the overall WDSI trend declined from right to left, with each of the three domains showing distinct development trajectories.

In 2023, the overall WDSI performance was weakly positive (+0.02), driven mainly by growth in the "Global Ethics" domain (+0.163). The growth in "Inclusive Development" stagnated, while "Environmental Equilibrium" continued to weaken. The significant changes in "Global Ethics" were primarily influenced by the global pandemic and the outbreak of Ukraine-Russia War, causing immense uncertainty and challenges worldwide, especially impacting the indicators within the "Global Ethics" domain. With the revival of international exchanges, "Global Ethics" saw some growth in 2023, mainly due to

NOTE

5. Initially, WDSI aimed for biennial reports. However, the global COVID-19 pandemic necessitated a transition to annual reports, ensuring timely and insightful analysis of global developments amidst the crisis. WDSI swiftly adjusted its approach and, starting from 2020, revised its publication frequency to an annual report.

an expansion in people-to-people exchanges and trade activities. Although "Inclusive Development" showed minimal growth, Its five-year downward trend is concerning. "Environmental Equilibrium" continued its negative growth trend, with complex reasons to be explored further.

These changes not only signify the multifaceted nature of global sustainable development but also emphasize the necessity for targeted policies and actions across various sectors to attain a more comprehensive set of sustainable development goals.

Table 5 | 2023 performance and historical trends of WDSI and its domains

	2023 Overall Score	2023 Score (derived from 2022's total entity output)	2022 Overall Score	2022-23 Score Changes	2021-22 Score Changes	2020-21 Score Changes	2018-20 Score Changes
WDSI	6.147	6.192	6.172	0.02	0.150	0.084	0.242
Global Ethics	6.988	7.036	6.873	0.163	-0.340	0.392	0.171
Inclusive Development	5.837	5.902	5.898	0.004	0.170	0.337	0.448
Environmental Equilibrium	5.994	6.001	6.070	-0.069	-0.070	-0.010	0.261

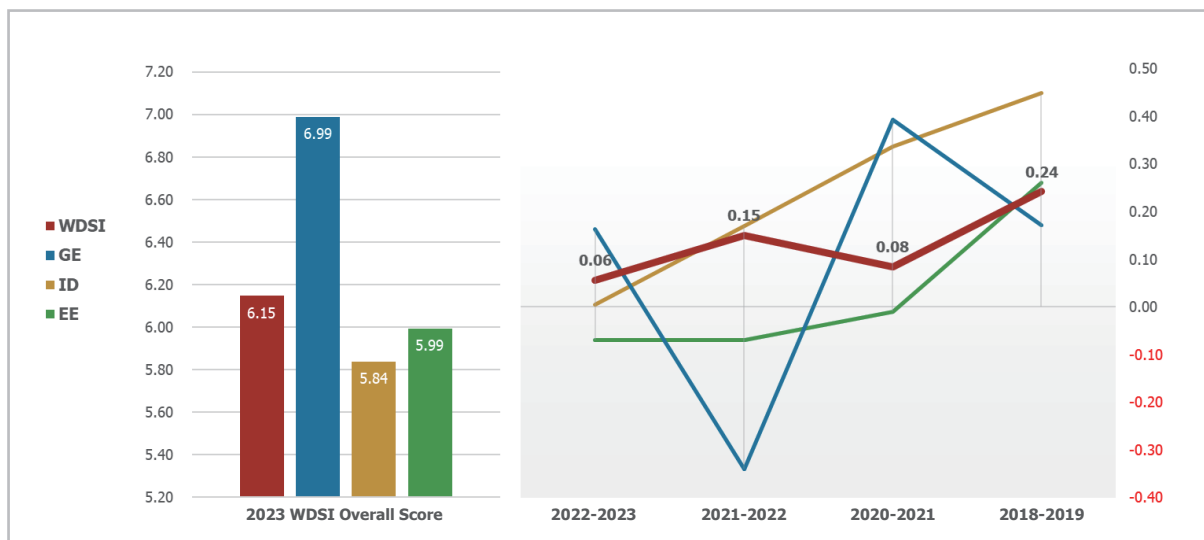


Figure 11 | 2023 performance and the historical trends in WDSI and its domains

3-4-2 Selected countries' highlights

Table 6 illustrates the ranking shifts in select countries within WDSI from 2018 to 2023. These nations encompass Sweden, emblematic of Northern Europe's forefront, Poland, an emerging economy in Eastern Europe, the United States, a global leader in economics and technology, and China, a burgeoning powerhouse. Additionally, it encompasses Chile in South America, Saudi Arabia in the Middle East as a prominent oil producer, and the long-conflicted Ukraine and Russia. Representatives from BRICS nations, namely India and South Africa, are also part of this analysis.

Table 6 | Selected countries' changes in WDSI

	2018	2020	2021	2022	2023
Sweden	1	2	2	1	1
Poland	29	22	11	18	24
USA	35	40	37	37	33
Chile	41	34	39	36	36
China	40	38	42	40	46
Saudi Arabia	60	45	63	55	50
Ukraine	56	47	54	54	69
Russia	58	52	46	86	98
India	69	64	84	100	88
South Africa	65	76	85	102	92

According to Figure 12-1 data, Sweden, known for its robust institutional framework, saw minimal changes in ranking during the pandemic. Conversely, the United States, representing a free-market economy, briefly faced recession but swiftly rebounded, showcasing remarkable resilience. Poland, an emerging economy, displayed a unique trend, with its international ranking actually rising during the pandemic. Despite facing competition later on, its performance remained strong, possibly due to benefiting from the EU's unified vaccine policy early in the pandemic. In contrast, Latin America and the Caribbean experienced significant economic downturns, though Chile, as a leading economy, fared relatively better. China enforced strict community transmission controls early on, resulting in moderate economic growth. However, prolonged lockdowns led to stagnant economic growth, impacting its inclusive development amidst the rapid recovery of other nations.

The trend of the WDSI rankings of the selected emerging countries is displayed in Figure 12-2. During the early stages of the pandemic, significant economic downturns were experienced in all four countries except Russia. Faced with the impact of the pandemic, developed countries implemented extensive fiscal aid and monetary stimulus measures to maintain social stability. In stark contrast, some more vulnerable developing countries struggled to provide sufficient pandemic relief measures. These countries faced challenges from both international investment withdrawal and domestic economic hardships. As countries transition into post-pandemic recovery, it's noteworthy that developing countries like India and South Africa exhibit slower economic rebound compared to wealthier counterparts like the US and resource-rich Saudi Arabia. Meanwhile, countries entrenched in conflict like Russia and Ukraine continue to grapple with prolonged economic downturns and social instability, posing significant obstacles to their sustainable development.

In sum, these trends underscore the pandemic's profound and varied impact on the global economy, highlighting the crisis response capabilities of different economic systems and emphasizing the importance of international cooperation and internal governance structures for recovery and development. The pandemic has especially

laid bare the vulnerability and unequal standing of developing countries lacking adequate resources and policy support within the global economic framework.

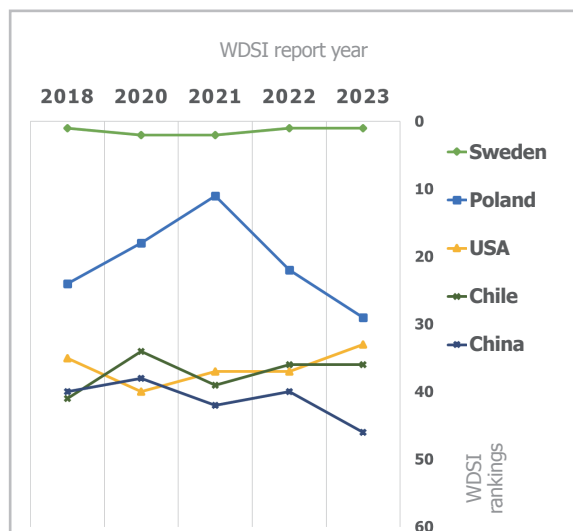


Figure 12-1

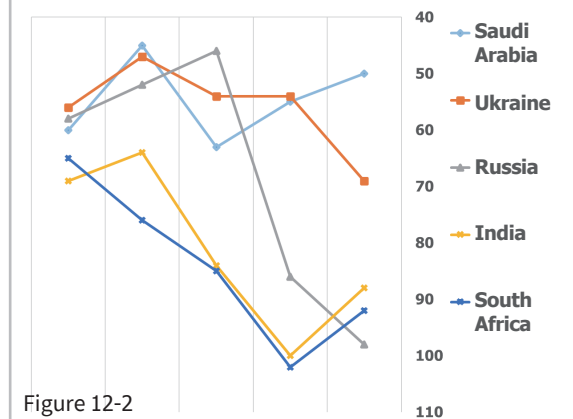


Figure 12-2

Figure 12 | Selected countries' changes in WDSI rankings

I Reference



I Reference

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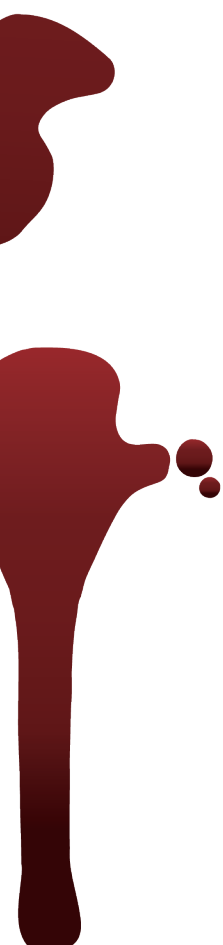
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