

AN ANALYSIS OF STAKEHOLDERS' ENGAGEMENT AGAINST THE BACKDROP OF CHINA'S NASCENT ROLE AS THE WORLD LEADER IN SUSTAINABLE DEVELOPMENT RESOURCES: A CHINESE VIEW OF DEVELOPMENT COMMUNICATION

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Article Info

Keywords: stakeholders, sustainable development citizens engagement, development communication, co-benefit, ecological civilization.

DOI

10.5281/zenodo.10809260

Abstract

China has positioned itself as the world leader in sustainable development resources. This has taken root regardless of being the highest emitter of CO₂. Scholars have insisted that economic interest is the underlying factor behind sustainable development. We investigate China's commitment to sustainable development goals against the backdrop of its level of engagement with citizens on sustainable development. Growing knowledge among Chinese citizens about climate change and sustainable development, or the PRC version, ecological civilization Shengtai wenming, has been established in scholarly research. Our research query is on how much of this awareness is the result of government intentionality to carry the citizens along in its recent commitment to sustainable development. Development communication dictates a joint effort among stakeholders to discuss issues and determine the development path. Using STAKOR, a scale designed to evaluate dialogical communication between organizations and their key stakeholders, to analyze the survey research and a review of existing policy documents, we survey the level of engagement on the topic of sustainable development with stakeholders in China to measure the level of China's commitment to these goals. Is it merely an economic issue or a commitment to sustainable development goals? The results show a recent increased level of engagement with stakeholders, following pressure from inside and outside and several policy actions to support sustainable ecological civilization. Based on the recommendations proposed by respondents and evidence-based successful stakeholder engagement, we share recommendations for improved communication for sustainable development that can be applied in a broader context.

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1. Introduction

Commitment to actual development in any sphere is more easily determined by stakeholders engagement. Development communication scholars have emphasized this when they point to actual development as being situated at the heart of communication and participation (Gumico Dagron 2001, 2008, (Omoera, Onyemuchara, and Okwuowulu 2020, Gálvez and Casanova 2019, Colle 2008, Mefalopulos 2008, and Servaes 2008, Odorige 2023). They infer that vertical top-down communication for development not only has the potential for failure but is more propagandist fulfilling only the wishes of the sender, which may be intended to get populations to conform (Gumico-Dagron 2008) or become deformed as information takes a one-way flow of content towards the passive receiver. Analytically speaking, conformation aims at adjusting people's behavior for political purposes, and deformation aims at distorting history, memory, truth, and culture to have people dominated by the privileged class and political office holders. One wonders if this kind could ever be adjustable to communication for a sustainable future with the glaring evidence of the earth's erosion having transitioned to the present epoch of Holocene from the first epoch of Pleistocene (Rockström et al 2009) as a result of the non-futuristic use of earth's resources (IPCC 2014) leading to the depletion of the ozone layer and the many environmental changes that have and can result globally and specifically to the Chinese environment (Zheng, Ge, & Hao, 2002, Cheng, Zhang and Tao 2018 Ashad et al 2021, Changjiang and Qingbai 1996, Qin,, Zhou, & Xiao 2014, Zheng et al 2021). Zheng et al. (2021) linked temperature and precipitation as key climatic factors for vegetation formation, obtained via mathematical analysis and numerical simulations, where certain temperature levels lead to vegetation isolation, thus leading to the emergence of desertification.

China has been in the middle of accusations of polluting the environment, with much of the global carbon footprint count pointing in her direction. This is attributed to her race toward development and sustaining growth gains in recent years. In addition, the population of China stands at 1.4 billion people, with an average carbon footprint in pounds per person in China put at 16323.68 lbs³. This has earned it the title *highest emitter of CO2* in the world, accounting for 27 % of the annual global carbon dioxide and a third of the world's greenhouse gas emissions (World Bank Group 2022). These figures paint China as being responsible for the world's woes, about greenhouse gas emissions resulting in global warming. Much of this is because China has become the workshop of the world or the world's factory, and this has lifted millions of its population out of poverty (Mathew and Tan 2015). Keeping with the present reality that many developed economies in the West have moved away from carbon-intensive industrial economies to service economies, leading to a relocation of these activities to industrializing ones, with China as the lead industrial capital of the world (Ewah Otu Eleri 1993, 106, Lin and Sun 2010; Helm 2012)). Deciding in this direction by developed economies for relocating industrial production is informed by two principles. First is the profound global population transformation where the phenomenon of population aging occurs when the median of a country rises due to the transition from high birth and death rates to lower birth and death rates as the country develops. This has become prevalent in the developed West and has impacted the active population, leading to labor force shortages. (ILO 2013). Second, industrialized goods from other developing countries are delivered relatively cheaply. China, for instance, with its teeming population and its pseudo-political economic hybrid system of communist capitalism (Hamilton 2014) with the measure of state control indicates the potential for cheap and disciplined labor, which is an important factor of production in what is referred to as the fossil capital hypothesis (Malm 2012). Zhang Dong Huang and Xie (2019) show that between 12.2 % and 14.1 % of CO2 emissions in China are the result of foreign direct investment. The impact of this great

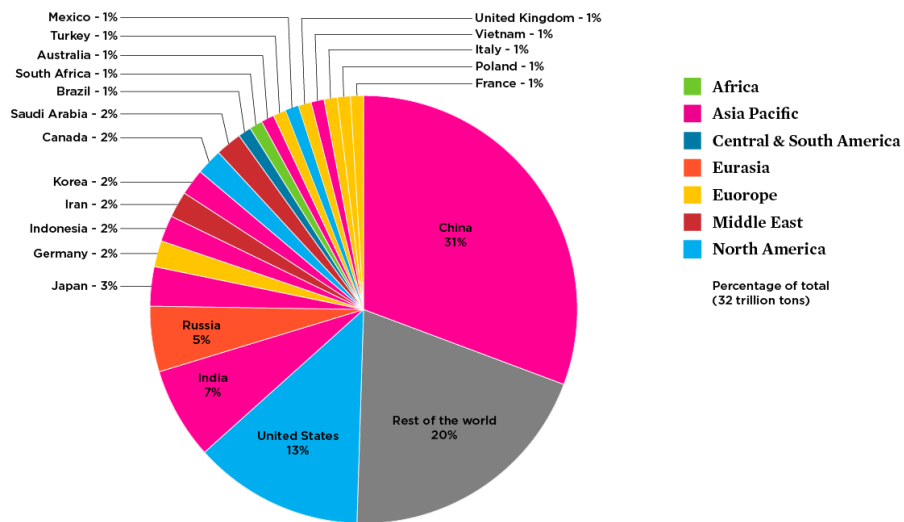
³ Data source: World Bank CO2 emissions (Metric Tons per capita) 2018

industrialization and manufacturing on environmental pollution in China cannot be overemphasized. As much as China would want to tackle environmental challenges, concerns about slowing down its development have hindered its decision to move to champion sustainable development goals. These are at best from the initial dialog of trade and sustainable development as being inconsistent with the desire to reach levels of development that encompass wider members of its population (Anderson 1992). According to the report by the International Institute for Sustainable Development (1992), trade and sustainable development was described as ‘the dialog of the deaf’ with multiple stakeholders defending their positions. Therefore, the search for environmental economic policy has the characteristics of being indirect and flexible, which is conducive to coordinating the contradiction between environmental protection and economic development.

The focus on China in winning the war on greening the environment is tied to the fact that most large economies in the world have simply abdicated their search for solutions for the production of certain industrial goods by their dependence on goods from China. A success for China in finding greener solutions to industrial production is a success for the world because China is producing almost half of the world’s industrial goods.

Top Annual CO₂ Emitting countries, 2020

(from fossil fuels)



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Data: IEA Atlas of Energy

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Figure 1. Source: Union of concerned scientists

2. Methodology

We adopted primary and secondary sources for our research. Engaging regional stakeholders through a survey questionnaire using an ex-post facto design; which is a quasi-experimental study examining how an independent variable present before the study affects the dependent variable. The independent variables were age, educational level, and occupation of the respondents. The dependent variables were awareness of the discussion, terminologies, and institutions related to climate change intended to establish when awareness about climate change had taken root in China and how aware the population was of the terminologies associated with climate change. We were also privy to policy documents on China’s ecological civilization and research that analyzed the economic and political transition of China concerning climate change.

⁴ <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

3. Survey Result Analysis:

Figure 2: Demographic data of the respondents

Sex distribution

| | |
|---------------------|-----------------------|
| Males in percentage | females in percentage |
| 46.04% | 53.96% |

Age Distribution

| Options | Ratio |
|----------|--------|
| Under 20 | 19.42% |
| 20-25 | 40.25% |
| 26-45 | 21.58% |
| 46-above | 18.71% |
| Total | 99.96% |

Educational level

| Options | Ratio |
|--------------------|--------|
| Primary and below | 4.32% |
| Secondary | 11.51% |
| College | 28.78% |
| Bachelor and above | 55.04% |
| Total | 99.66% |

Occupational Distribution

| Options | Ratio |
|-----------------|--------|
| Student | 51.08% |
| Corporate staff | 24.46% |
| Freelancer | 16.55% |
| Unemployed | 4.32% |
| Retired | 1.44% |
| Others | 2.16% |
| Total | 100.01 |

Source: Own research

Figure 3: Psychographic data of respondents

| Variable | Percentage |
|---|------------|
| <i>Familiarity with terms (Multiple choice)</i> | |
| Climate Change | 66.91% |
| Sustainable Development Goals | 86.33% |
| Millennium Development Goals | 28.78% |
| Channel broadcasting terms | |
| Government Information Portal | 18.71% |
| News Channels | 47.48% |
| Social Media | 29.5% |
| NGOs Workshop/Seminars | 4.32% |

Received Enlightenment on SDG

| | |
|-----|--------|
| Yes | 79.86% |
| No | 20.14% |

Bodies that organized Enlightenment

| | |
|----------------------------|--------|
| Government– local/national | 46.04% |
| Civil Society | 15.83% |
| Business Corporations | 5.76% |
| All above | 32.37% |

Citizen engagement in SDGs

| | |
|-----|--------|
| Yes | 72.66% |
| No | 27.34% |

Who pioneered engagement?

| | |
|---------------|--------|
| Government | 58.99% |
| Civil Society | 41.01% |

Individual participation in climate support action

| | |
|-----|--------|
| Yes | 47.48% |
| No | 52.25% |

Are you persuaded about climate's impact on our environment?

| | |
|-----|--------|
| Yes | 87.77% |
| No | 12.23% |

Which government policies for managing climate change do you like the most?

(Multiple choice)

| | |
|--|--------|
| Promote scientific and technological levels and improve resource utilization. | 78.42% |
| Encourage afforestation and strengthen ecological construction and protection | 81.29% |
| Strengthen the formulation of laws, policies, and measures to address climate change | 76.98% |
| Increase education and communication on climate change | 49.64% |

Are you aware of channels where you can make suggestions on climate change?

| | |
|--|--------|
| To government agencies | 73.38% |
| To the Environmental Defense Association | 83.45% |
| To the neighborhood committee | 52.52% |
| Others | 2.16% |

Participants

The survey respondent demographics are between the ages of early adulthood and 45 and over. The higher number of respondents were from the ages of 20 and 25, which made up 40.29% of the total respondents from the four categories. Females Made up the highest number of respondents, totaling 53.96% of the respondents. The respondents were relatively educated, and none reported an illiterate status. 55.4% held a bachelor's degree or more. Showing a population that is aware of their social-political environment. Ninety-two percent of the total respondents are active either as students or in some form of employment.

Measurements

Data were collected using a questionnaire comprising the demographics discussed above as participants. The scales below were used to measure the variables of interest in the study.

We apply stakeholder orientation or STAKOR, a scale designed to evaluate dialogical communication between organizations and their key stakeholders. Buber (2002c) states that genuine dialog involves turning to the other as a partner, not necessarily implying approval but acknowledging him as a person worthy of such conversation. Regardless of the definitional ambiguity related to the theory, it is still widely used in management research. Stakeholder dialogical communication was measured through an 11-item assessment on an optional scale of choices.

The results show a more recent engagement in sustainable development. Since most respondents are young many are not aware of the first concept, which is the Millennium development goals. However, there is awareness about sustainable development and climate change, which are more recent windows by which global warming is addressed. 86.33% are aware of the term sustainable development, 66.91% are aware of the term climate change, and only 28.78% are aware of the term millennium development goals. News and mass communication channels are the highest broadcasting channels with a total of 47.48%, followed by social media with a total of 29.5%. Since the media in China is controlled by the government, it is logical to say that there is an intentional attempt to disseminate information about global warming and sustainable development. In the next question, 79.86% admitted to having received enlightenment about global warming. In addition, more respondents admitted to receiving this information from the local and national government. In addition, 72.66% said they have been consulted to share their opinion on the management of climate change. This participatory partnership dialog was more often the initiative of the government than of civil society, with a rate of 58.99% as against 41.01%. Fewer people from the respondents have participated in climate change action programs (52.52% vs. 47.48%). The response to persuasions about the impact of climate change on our environment was in the affirmative, with 87.77% agreeing that climate change has a greater impact on our environment. The affirmation may be from two sources: the government crusade on climate change and the fact that China has had its fair share of disasters emanating from climate change. The most popular among respondents on the policies put in place for managing climate change is the encouragement of afforestation and strengthening of ecological construction and protection (81.29%), promotion of scientific and technological resource utilization in the area of climate change (78.42%), and strengthening the formulation of relevant laws, policies, and measures (76.98%. The least popular intervention was the intervention on increased education and communication on climate change, which was 49.64%. The Environmental Defence Association stood out as the most popular channel where citizens can make suggestions on climate change at 83.45%, followed by government agencies at 73.38% and neighborhood committees at 52.52%.

Some open-ended questions In response to a gap-filling question on What social strategies are in place to ensure commitment to protecting the environment? The following are the most popular responses:

- *Increase the importance of environmental protection and publicization of the consequences of environmental damage, it is best to start the consequences of specific points related to everyone's Daily life.*
- *Save resources, such as saving paper and electricity, and improve awareness of environmental protection*
- *Plant trees*
- *Garbage sorting and recycling*
- *Improve laws and regulations*
- *Plastic reduction order and plastic bag purchase limit*
- *Social reward and punishment mechanisms*
- *Government first (Government lead by example)*
- *Low-carbon travel, saving energy*

- *Legislation at the policy and regulatory levels*
- *Relevant environmental publicity and laws and regulations*
- *Energy replacement and development of new energy*
- *Strengthen environmental protection education and introduce the concept of environmental protection the classroom, starting from the child*
- *Encourage technological innovation and R&D for environmental purposes*

4. Co-Benefit Factor in Mitigating Climate Change

Several decades of *dialog of the deaf* emanated from debate camps with diverse perspectives on what is true, what is the most holistic approach to combat climate issues, or why they should be concerned at all. Runnall and Cosbey (1992) cite examples from two major opposing voices: liberal trade advocates and environmentalists represented by civil society. Liberal trade advocates evaluate the impact of regulated trade policies on trade flows. Using examples from history: the period of protectionist trade wars and the resultant effect of the Great Depression of the 1930s. While their opponents hold onto the impingement of trade policy on the environment and human well-being. Especially with liberalized trade taking away the right of countries to determine their environmental standards. Due to these debates, from the millennium development goals to sustainable development goals, a seeming breakthrough was only accomplished with the reaching of a global agreement on the topic in Paris in December 2015. China was among the countries that made this commitment. However, questions have arisen about how credible these commitments are. Eight years later, have these agreements been acted upon? Schmitz (2017) emphasizes the role of bilateral and multilateral alliances in driving climate change policies. Nevertheless, faced with more pressing and immediate priorities, will these key actors pay attention to climate change mitigation? The result is an unfortunate negative. Justifiably so, since sustainable development advocates responsibly meeting the needs of today. Actions of climate mitigation activities are only good in themselves when they help to secure energy for populations, create jobs and incomes, lay the foundation for increased public revenue, foster green industries, and make them competitive. Therefore, this validates the conclusion that climate change mitigation policies and actions are only as relevant as co-benefits for the immediate priorities of the actors rather than a driver (Schmittz 2017). Oppositions that have been stirred up against renewable energy development are irrelevant in China because of the ever-rising demand for energy. The advancement of one form of energy, renewable energy or fossil fuel-based energy is not at the expense of the other. China cannot therefore be said to be trapped in the carbon lock-in. A path-dependency process driven by technological and institutional increasing return to scale (Unruh 2000). China's energy scarcity provides a window of opportunity to create new paths and to establish renewable energies. This may also present an opportunity to answer Hamilton's question (2014): Will China Save the World or Destroy it? Making a case for China's state power communism's great advantage over capitalism is the exercise of social discipline, something the leadership in China is still exercising, can be supportive of the needed advancement in renewables. Apart from the apparatus of state control, China's renewable energy efforts are a national policy strategy with the Renewable Energy Law of 2006, which regulates renewable energy development. This law provided for incentivizing investment in renewable energies where responsibilities are assigned to different parts of the government. The charge for technological development, setting and maintaining standards, grid connection, developing feed-in tariffs, promoting industry, and creating a national renewable energy fund. The law guided all other policies and combinations thereof (Schmit 2017). This makes for an appropriate title given to the Asian giant's efforts by John Mathew as the Greening of Capitalism. This is an effort in the right direction because considering the populations of the Asian giants, China and India, if they continue without recourse to the environmental implication of their actions with brown capitalism, which is the

industrial development foundation of the developed countries, then the earth will descend into the abysmal bliss of Co2 infestation. China's development of and use of renewable energy sources has grown rapidly, eclipsing Germany and France combined in 2013, a greener version of the Western model of brown capitalism (Mathew 2015 p 10). This action silences China's skeptics who refer to the country's coal-based black growth. (Sung-Young Kim 2017).

5. Stakeholders' dialogs on Sustainable Development in the Chinese Environment

Focusing on the Chinese example, Matthew (2015) defines green growth as an economic system that greens itself through state-mandated efforts to invest in the development of renewable energy sources. Such a system is used in the manufacture of devices such as solar panels and wind turbines. Manufacturing such products can take place anywhere and is subject to falling costs through the learning curve, thereby enhancing energy security. In looking at stakeholder engagement from the Chinese perspective, it is fundamental to tilt the research lenses of development communication. If the warnings by cultural leadership scholars are anything to go by, it is expedient to view development communication from the Chinese political/cultural worldview to understand what constitutes stakeholders' development communication. The evidence-based growth path of China, with its economic system of communist capitalism laced with a measure of state control and effective disciplined labor, stems from its high power distance culture. This may seem to infer vertical top-down communication for development that fulfills only the wishes of the sender. Liang et al. (2022) discuss China's green growth as due to four dynamic driving forces: pressure, pull, push, *and supporting forces*. While pressure from outside China was mounting, fossil fuel-based manufacturing activities are impacting global warming and rising energy insecurity. Internal pressure from environmental degradation (unbreathable air) captured in Pan Yue's interview with Der Spiegel (Gare 2012) also became a growing force, as people became conversant with the impact of brown development on their eco-system. The new elites of China, born out of its growth, developed new awareness and new tastes. Part of the new taste is to patronize green products and shun brown manufactured goods, which communicate that unless something is done, local populations will shun local productions (Shun, Fu, and Song 2020). This brought about collaborations by all championed by the Chinese government as the main body, with the introduction of ecological civilization, China's unique brand of environmentalism led by President Xi Jinping and the PRC. These lays bare the decadent barbarism of late capitalism, a future beyond capitalism, freedom from Stalinism and its variants (Gare 2012, Pan 2016, Hansen et al. 2018, Sun and Huang 2021), and the next stage of civilization after industrial civilization (Zhang and Fu 2023) with collaborations from enterprises, social organizations, and the public. Green development without government participation seems unrealistic. The institutional framework for achieving green development includes education, the legal system, multistakeholder participation, ecological compensation, scientific and technological innovation, regional cooperation, and other institutional paths (Liang et al. 2022). The Rhine River's successful governance stands as a reference point for multistakeholder engagement in greening the environment with the active participation of government, enterprise, social organizations, and the public. The incentivization of coordination with greening the economy provided an optimal ecological compensation system that impacted stakeholder engagement, which is now obvious in the growth in this direction. The answer may be in response to the question by Schmitz 2017 who is behind the 2006 energy law and who is behind its implementation? The key theme identified by scholars who have studied this law, such as Mathew and Tan (2015), is building energy security through manufacturing, as cited in Schmitz 2017. This means an all-benefiting theme that will transform the lives and businesses of the Chinese people, and therefore get the support of the people. The cross-regional ecological compensation measures are described mainly with local compensation, and there is a mainstay and special support from the central finance. The form

of compensation should adopt a flexible method that combines monetary compensation with counterpart cooperation and industrial support. An in-depth examination of how the Chinese central state has developed an impressive means to overcome special interests in bureaucracy and industrialism (Sung-YoungKim2017).

6. Conclusion

This research was approached with concerns about China's actual commitment to a sustainable future and the existing high power distance in China in the cultural dimension nexus. We expected that the level of engagement may be low because of the high power distance, especially with the younger population, considering that they make up the highest number of respondents in the survey. In addition, in the cultural dimension, the nexus is collectivism, of which China is a collectivist society that has the advantage of groupthink and group action. This can mitigate the implication of unequal power sharing. To avoid generalizations on what constitutes adequate stakeholder communication for development in the Chinese socio-political environment. The evidence from the survey respondents attests to an engaged and aware population on sustainable development. We share here a list of organizations concerned with environmental matters as shared by the respondents in one of the gap-filling questions as evidence of an awareness of various agencies working on sustainable development that the population is engaged with;

- United Nations Environment Programme
- State Environmental Protection Agency of China. The competent administrative organ for environmental protection under the Government of the People's Republic of China
- United Nations Environment Programme (UNEP) : The environmental protection agency of the United Nations, whose purpose is to promote global cooperation and coordination on environmental protection.

The International Union for Conservation of Nature (IUCN) is an international nongovernmental organization dedicated to protecting global biodiversity and promoting sustainable development.

Greenpeace: An international nongovernmental environmental organization dedicated to the peaceful protection of the environment through peaceful means and civil action to promote the development and promotion of environmental regulations.

- Environmental Protection Bureau, Ministry of Ecology and the Environment
- WWF
- NPO
- Environmental Protection Association
- Environmental Protection Agency, Institute of Ecological and Environmental Protection
- The United Nations
- World Environmental Protection Organization
- United Nations Climate Conference
- Environment Agency, EPB
- Forestry bureau
- Sanitation department
- Ministry of Ecology and Environment, People's Republic of China
- World Environmental Organization
- Ministry of Ecology and Environment
- Bureau of Natural Resources
- Environmental monitoring company
- State Environmental Protection Administration

For further recommendations on improving dialogical communication and action for climate change. The responses from the survey seem apt to be shared.

- *Together, the Earth is the home of all mankind*
- *Express packaging, Do not over-pack*
- *We need to improve public literacy*
- *We feel that protecting the environment is too far away from us to actually affect our own interests, and we should explore ways to publicize it so that people can feel that this is related to their interests.*
- *Everyone enhances environmental awareness*
- *Government propaganda, everyone's efforts*
- *No deforestation*
- *The community often organizes environmental education and environmental protection activities*
- *Save energy and use renewable products*
- *Everybody takes action*
- *Energy conservation and emission reduction*
- *Start by not littering around*
- *Strengthen popularization*
- *Reduce air pollution and plant more trees*
- *New energy can be used*
- *Low-carbon travel*
- *Strengthen the quality of citizens*
- *Order less takeout*
- *Propaganda (this means enlightenment) should be introduced into schools, starting at an early age*
- *We will increase the recycling of express delivery boxes*
- *More publicity is needed*
- *Every citizen should be aware of environmental protection*
- *afforestation*
- *The Public has done a good job in environmental protection, but the enterprises seem to have done a bad job, such as reducing various non-compliant emissions.*
- *No plastic bags*
- *Reduce emissions and do not waste food*
- *Enlarge publicity*
- *The annual Earth Hour has grown into a monthly event*
- *Companies and institutions should take the lead*
- *Strengthening the implementation of garbage classification, some areas have not yet been implemented*
- *We hope to build a symbiotic environment*

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