

Note

CHINA AND CLIMATE CHANGE: A QUEST FOR ECOLOGICAL INFLUENCE AND POWER

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The Defence and Climate Observatory, launched in December 2016, is tasked with studying climate-related security and defence issue.

The Observatory coordinated by IRIS under the contract carried out on behalf of Ministry for the Armed Forces' Directorate General for International Relations and Strategy (DGRIS). The Observatory gathers a multidisciplinary and cross-disciplinary team of research fellows specialised in international relations, security, defence, migrations, energy, economics, climatology and health. It is led by two scientific coordinators: Julia Tasse and François Gemenne.

The Observatory is strong of multiple partnerships with European partners (Netherlands, Luxembourg) and international partners (Australia, United States, India), international NGOs and national and international public bodies. Such initiatives enabled strengthening cooperation on climate issues and their security implications.

The Defence and Climate Observatory produces reports and notes, organises restricted seminars and conferences open to the public, and hosts the podcast « Sur le front climatique ».

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Over the past two decades, many analysts have pointed to a process of "climatisation" in international relations (Dahan, 2018), consisting of the emergence of a global awareness of climate change and a restructuring of international discussions around the climate issue. States can no longer ignore the issue as part of their strategies for influence¹ and power², which must necessarily reconcile climate responsibility with national interest.

The last two decades have also seen the rise of China as one of the world's major economic powers. This rise has been reflected in a sharp increase in its greenhouse gas (GHG) emissions, which have led it to become the world's largest emitter, emitting 30 % of the planet's total GHGs³. By China's growing awareness of environmental issues - in particular, the 2012 Constitution of the Chinese Communist Party introduced the concept of "ecological civilisation"⁴ - and by China's rise to prominence in international climate talks: at COP15 in Copenhagen, China was still perceived as a blocking force in the agreements⁵, but at COP21 it became a facilitating and indispensable player in the Paris Agreement (Gemenne, 2018).

This shift in Chinese policies can be explained, at first glance, by several socio-environmental concerns. The explosion in China's greenhouse gas emissions has led to a deteriorating air quality in China, causing more than a million deaths a year, undermining the legitimacy of the Party as a provider of public health, and making the authorities more aware of the dangers of climate change (Maréchal, 2021). But this shift was also motivated by strategic reasons, which can be summed up in three imperatives: a diplomatic imperative, consisting of positioning itself as a responsible world leader on the international stage (I); an economic power imperative, consisting of positioning itself as a key economic power, providing climate funds to the most vulnerable countries, but also supplying green energy (II); and finally, the need for territorial and military power, by taking advantage of the climate vulnerability of certain regions to base and upgrade its armed forces for humanitarian aid and disaster relief operations (III).

¹ A state's ability to assert its interests in a non-coercive manner, in particular through cultural outreach mechanisms.

² A state's ability to assert its interests coercively, in particular through economic and military mechanisms.

³ Cf. International climate responsibility figures", Appendix 1.

⁴ Included in the Chinese constitution since 2000, "ecological civilisation" is said to be a civilisation based on respect for the environment and planetary limits (Monjon et al., 2021). With this concept, China intends to position itself as a leader and model for a global ecological transition (Goron. C., 2018).

⁵ Until 2005, China refused any form of reduction commitment, citing arguments such as low per capita emissions in China, the absence of historical Chinese responsibility for observed climate change and the lack of technological and financial resources needed to reduce greenhouse gas emissions (Bjørkum, 2005).

A QUEST FOR DIPLOMATIC INFLUENCE

1. China: a respectable leader among the countries of the South in the face of Western "green protectionism"

Strengthening China's discursive influence within global climate governance has become one of the main diplomatic priorities of the Chinese Communist Party (CCP) (Qi & Dauvergne, 2022). This influence is largely based on **the principle of common but differentiated responsibility (PCDR)**⁶ (Wu, 2013; Le Monde, 2021), which will direct the speeches of the Chinese authorities⁷ as well as of the media⁸, and will be included in the 2021 White Paper (The State Council Information Office of the People's Republic of China, 2021). **The PCDR is at the heart of China's leadership strategy for developing countries**, a strategy based on two pillars: highlighting the shortcomings of the West's handling of the climate problem and making China a "responsible great power" (Ibid.) among developing countries⁹.

As part of an informational battle against a world order dominated by the West, China is relaying **criticism of developed countries' "green protectionism"**¹⁰ **towards developing countries** (Sikorsky, 2023, 20 June). In particular, it highlights the failure of developed countries to honour the pledges they made at COP15 in Copenhagen, such as the promise to transfer \$100 billion a year to developing countries starting 2020¹¹. China is not only criticising the gap between the pledges made by developed countries and the funds actually invested, but also the gap between the ambitions formulated by developed countries in terms of mitigation and the much lower ambitions formulated in terms of adaptation - ambitions that are of primary interest to developing countries, which are the most vulnerable to climate

⁶ The principle that the responsibility for reducing GHG emissions lies more with the major historical emitters than with developing countries. Thus, while China will dominate annual emissions in 2021, the United States and Europe will be responsible for 24% and 17% respectively of cumulative emissions over the period 1750-2021, compared with 14% for China (Cf. "Figures on climate responsibility on an international scale", Appendix 1). International climate responsibility figures", Appendix 1). This concept of historical climate responsibility that needs to be measured over the long term is supported by the lifetime of CO₂ (several thousand years).

⁷ Chinese Foreign Minister Wang Yi told the 2019 Climate Action Summit that China would defend the principle of common but differentiated responsibility, and that global climate governance must respect the development needs of the poorest countries. The same position was defended by Chinese Premier Li Keqiang at the Global Commission on Adaptation in 2019 (Xinhua, 2019).

⁸ For example, Chinese media representation of the Paris agreements emphasises shared responsibility, whereas Western media stress the urgency of action (Pan et al, 2019).

⁹ China wishes to retain its status as a developing state, both for the legitimacy that this status gives it in the eyes of other developing states, and for the advantages it gives it within international organisations. In March 2023, following the adoption by the US House of Representatives of a bill aimed at withdrawing this status from China, the media outlet China Daily described the United States as "rogues" (Courrier International, 2023, 30 March).

¹⁰ "Green protectionism" is a critical term used by China to describe the global low-carbon transition advocated by developed countries. China sees it as a trade barrier and unfair competition under the guise of ecology (Embassy of the People's Republic of China in France, 2023).

¹¹ In fact, the OECD notes a gap of \$16.7bn between the initial target and the 2020 result, i.e. a total sum of \$83.3bn (OECD, 2022).

change. At international climate meetings, China strongly defends the need to support adaptation to climate change in vulnerable countries and to integrate this pillar into international climate governance (Qi & Dauvergne, 2022). The announcement by the United States to limit the scope of the loss and damage fund to only the most vulnerable countries, as opposed to all developing countries, allows China to reiterate the idea of the irresponsibility of developed countries (Reuters & Lo, 2023, 24 August).

This promotion of adaptation is part of a Chinese strategy aimed at uniting developing countries within a bloc that is unaligned with Western interests. On the international stage, China sees itself as the spokesperson for developing countries and presents itself as a developing country - a status recognised by the OECD (Philippe, 2022). Its negotiating strategy consists of speaking on behalf of the G-77, the largest UN grouping of developing countries (Wu, 2013). Using the **tactic of "reservation but compromise"**¹², **China manages to obtain as many concessions as possible from developed countries in the form of financial aid or technology transfer** (Wunderlich, 2020). However, it is making compromises in order to **maintain the unity of the G-77 and preserve its influence within this group, which is driven by divergent interests, including those of the oil-exporting countries** (Wu, 2013). This successful quest for climate leadership is **strengthening China's position as a highly influential power in international negotiations**, and has resulted in strategic cooperation alliances, notably with 53 African countries and the African Union Commission¹³, which should enable Beijing to establish itself as a diplomatic counter-power to the West.

Faced with Western powers that are struggling to deal with the climate and environmental problems of developing countries, China wants to be seen as a responsible state that shows solidarity with developing countries. In its communications, **it highlights the need for states to take political responsibility for climate change as a moral duty** (Wunderlich, 2020). Thus, in September 2020, at the United Nations General Assembly, Xi Jinping announced that China's CO₂ emissions would peak in 2030 and that it intended to achieve carbon neutrality by 2060 - an objective that was incompatible with China's climate policy, but that did give it some publicity. Furthermore, in 2021, the Deputy Prime Minister of the State Council, Han Zheng, reiterated China's "sense of responsibility to promote the construction of a community with a shared future for humanity" (Embassy of the PRC in Belgium, 2021). Internationally, this responsibility has taken the form of the creation of environmental NGOs such as Friends of Nature to strengthen China's non-governmental presence at international summits (Klink, 2008), as well as the **denunciation of environmentally and legally controversial projects**. For

¹² Reservation, but compromise.

¹³The Declaration on China-Africa Cooperation published in 2021 reiterates the principle of common but differentiated responsibility (Forum on China-Africa Cooperation, 2023).

example, Japan's decision to discharge treated radioactive water from Fukushima into the Pacific Ocean was an opportunity for Beijing to join certain Pacific Island countries in denouncing this project, which China considers to be a violation of the international law of the sea (Pacific Islands Forum, 2023; PRC Embassy in Tonga, 2023)¹⁴. China has also established itself as a **scientific power within the IPCC**, with renowned climatologist Panmao Zhai co-chairing the first working group alongside French palaeoclimatologist Valérie Masson-Delmotte.

2. Control, instrumentalisation of climate information and Chinese nationalism

The questioning of climate change has long been relayed by Chinese diplomacy. Until 2010, Xie Zhenhua, chief negotiator for the Chinese delegations to the COPs, maintained that the anthropogenic nature of climate change had not been established (Chamberlain, 2010, January 24). **Since Xi Jinping came to power in 2013, however, most climate scepticism has been censored and the official position has been refocused on Chinese initiatives at home and abroad to adapt to climate change.** As the self-proclaimed spokesperson for emerging countries, Beijing accompanied the evolution of its official position with a change of narrative on its social networks in 2012: **climate change has gone from being an invention of the West to constrain its development, to a scientific reality representing an opportunity for China to position itself as an ecological leader** (Lab, 2023, 30 May). However, despite this growing awareness of climate change, **Beijing shows little transparency on these issues at national level and censors opposition**, whether it comes from activists on social networks or traditional media. In general, the CCP has very little tolerance for critics who might question it (Standaert, 2017; Genovese, 2022). For example, in 2015, journalist Chai Jing's documentary *Under the Dome* on China's pollution crisis, was quickly taken offline by the Chinese government, despite receiving extensive international coverage (Mufson, 2015; US-China Institute, 2016).

Although climate change scepticism is no longer part of the Chinese Communist Party's communication strategy, it does tend to occupy the mediatic space in order to control the climate change narrative. Through the publication of hundreds of microblogs on the Weibo network, environmental authorities are fulfilling their **objective of national discursive control**

¹⁴ However, this controversy is more geopolitical than environmental: the discharge of tritiated water into the oceans is commonplace in many nuclear countries, including China. By way of comparison, the Fuqing plant alone discharged 52 terabecquerels of tritiated water in 2020, while Tokyo plans to discharge 22 terabecquerels annually for Fukushima (Lewis, 2023; METI, 2020). This example illustrates how China can use environmental issues to gain influence.

(Goron & Bolsover, 2020). Initially created to improve **e-governance**, the mission of these microblogs is to 'positively guide' public opinion and praise the state's success in its adaptation projects under the presidency of Xi Jinping (Liu, 2018, 30 July). In other words, **the ideal of a responsible and exemplary Chinese government in terms of environmental protection and the fight against climate change is, internally, imposed on the population by a constant stream of government discourse on social networks. The aim is in fact to disseminate the "correct ideas" in order to better communicate China's ecological philosophy** and, according to the spokesperson for the Ministry of Ecology and the Environment, to **"strengthen the comprehensive and strict management of the party's propaganda work"** (Liu, 2018, 30 July). This strategy falls under a technique commonly known as *flooding: censorship through the massive dissemination of propaganda* (Roberts, 2018). In practical terms, this is manifested by attempts to prevent environmental mobilisation by identifying and punishing critical voices, thanks in particular to the presence of local environmental authority officials on these networks (Goron and Bolsover, 2020). Indeed, demonstrations to denounce air and water pollution are frequent in both urban and rural areas (Deng and Yang, 2013; Liu, 2 January 2013).

In addition to preventing internal environmental criticism, the Chinese Communist Party also seeks to combat any criticism from the West, which is presented as unfounded and indicative of its malicious and dishonest nature. After calling on China to take responsibility for reducing its greenhouse gas emissions, Greta Thunberg was particularly targeted by Chinese networks. By criticising her for making false statements and distributing retouched and caricatured photographs of her, China discredited the message conveyed by the young activist, who was deemed manipulable by the nationalist Chinese newspaper *Global Times* (Global Times, 9 May 2020). Furthermore, in the face of criticism from the West about the poor quality of the "green" technologies proposed by China, the latter presents itself as a victim of the Western narrative. In 2011, developing countries like China had no choice but to source green technologies from developed countries. Now that China dominates the renewable energy value chains (see *A quest for economic leadership*), it is the target of several attacks aimed at discrediting the green technologies it produces on its soil: more than state criticism from the West, **the negative treatment of 'Made in China' by the Western media allows Beijing to consolidate its victim narrative, but also poses a credibility problem for it** (Iowa State University, 3 March 2016). On the example of green technologies, several proven or falsified cases of Chinese electric cars exploding have helped to tarnish China's image (Romero, Yin and Annie Lab, 2023, 30 May). These attacks help to reinvigorate Chinese nationalism (Romero, Yin and Annie Lab, 2023, 30 May). **Chinese media accounts based on Western opinion of China, which is often erroneous or caricatured, enable China to be**

contrasted with the rest of the world in a discourse of differentiation: a China that is proactive in climate action, but not respected by the West (Ibid.).

China: a power lacking in ecological credibility?

While China's geopolitical influence is growing on every continent, its strategy for adapting to climate change and the methods used to implement it do not meet with consensus, even within the G-77 (Atlantic Council, May 2021; Sikorsky, 20 June 2023). The Prime Minister of Antigua and Barbuda recently denounced China's failure to finance the fight against climate change during a debate at the UN Security Council (Sikorsky, 20 June 2023). Internally, the post-COVID-19 period has called into question the credibility of China's climate strategy: limited financing capacity, social tensions and the relative autonomy of the administered provinces are jeopardising the carbon neutrality objectives. China is the country with the most "climate bombs", new hydrocarbon development projects that threaten climate stability (*Courrier International*, 2022, 4 September). Efforts to boost Chinese growth have focused on major infrastructure projects: China's economic ambitions and concerns have distanced it from its climate objectives (Lai, 2021). These same concerns have also contributed to slowing down the development of Xi Jinping's flagship project for international influence, the Belt and Road Initiative (Lu, 2023, February 13). Such difficulties in establishing the Party's ecological credibility underline the importance of information control strategies in spreading its diplomatic influence on the international climate scene and in maintaining its legitimacy in the eyes of its population.

A QUEST FOR ECONOMIC LEADERSHIP

1. Economic capabilities as a means of political legitimisation

Climate change represents an opportunity for China to develop its economic power by investing in the various stages of the renewable energy technology value chain. To support this ambition, Beijing is seeking to promote its transition policies on the international stage and to set itself up as an example, in particular through large-scale international projects that give it platforms from which to exert its influence.

In its quest for power, China is seeking to reduce its dependence on fossil fuels by developing its low-carbon resources¹⁵ (Fouquet, 14 June 2021; Energy Foundation, 5 September 2022). It has thus positioned itself as a **leader in the markets for critical metals, rare earths and green energies, which are essential to the energy transition**. In 2022, the country was the leading refiner of critical metals (USDI & USGS, 2023; IEA, July 2022 a) and in 2023, it represented the largest reserve of rare earths metals (35 % of exploitable geological reserves identified by the United States Geological Survey (USGS, 2023)). As a key player in the "green" energy market, China also dominates exports of solar panels (Xu, 16 February 2023), wind turbines (Global Wind Energy Council, 2023) and lithium battery components (IEA, July 2022 ,b).

To promote and legitimise the dissemination of its technologies, China is seeking to unite states around international projects. The Belt and Road Initiative¹⁶ (BRI), launched in 2013 by President Xi Jinping, and the more specific "*Global Energy Interconnection*" project, which led to the creation of GEIDCO (*Global Energy Interconnection Development and Cooperation Organization*) in 2016, bear witness to this leadership. **In both cases, China communicates on the ecological aspects of the projects to convey a virtuous image**. Through the BRI, China is promoting investment in renewable energies by establishing favourable, non-binding financial mechanisms (Chen and Springer, 2021; Green Belt and Road Initiative Center, n.d.). On the other hand, the *Global Energy Interconnection* is part of an approach to mitigate climate change through energy efficiency, resulting from the interconnection of networks worldwide (Pèlegin & Marciot, 2021). **Adaptation, a central pillar of China's informational battle against the West, is also at the heart of a number of initiatives**, such as the Climate Action Cooperation Centre, which aims to share China's experience of green, low-carbon

¹⁵ At the same time, China is keeping the door open to the exploitation of fossil fuels - witness the exploration drilling that began in China in June (Le Parisien, 2023), the massive investments in natural gas (Stapczynski, 3 July 2023; Bloomberg News, 2 July 2023) or in coal mines (Murtaugh, 7 July 2023).

¹⁶ The project aims to create or strengthen certain trade routes between China and the rest of the world. It has a strong rail component (Lassere, Courmont and Mottet, 2023). For China, this has economic benefits - finding new markets, diversifying and securing its energy supplies - and political benefits - reducing instability at the country's borders and at home, extending its global influence (Nashidil, 2018; Pèlegin and Marciot, 2021).

development and adaptation with Pacific island countries. Seminars on how to combat climate change have been organised, as have donations of green energy technologies (E3G, 2023).

In 2015, China also set up the *South-South Climate Cooperation Fund*: a \$3.1 billions fund dedicated to financing climate cooperation with the global South. However, at the end of 2022, seven years after the fund was set up, only 10% of the promised sum, i.e. \$286 millions, had been delivered (E3G, 2023). **Beijing is also offering to help build adapted and resilient infrastructure**, such as the Apia Nikao school in the Cook Islands and the Popua road in Tonga, which is said to be more climate-resistant.

China is seeking to legitimise its projects by obtaining the support of international organisations and developing the image of a willing state in the fight against global warming, favourable to international cooperation. On the one hand, China explicitly refers to international climate agreements. For example, GEIDCO's ambition is not only to meet the targets set out in the Paris Agreement by reducing CO₂ emissions, but also to support sustainable development more generally in line with the United Nations' 2030 agenda (GIEDCO, RCSD, n.d.; Armando, 2021). **On the other hand, China is committed to multilateralism** by declaring itself open to cooperation with the United States within the framework of the BRI (Askary, 4 March 2022) or the recurring meetings between special envoys for climate (Jiangtao, 2023). In the same context, China is also seeking international legitimacy through partnerships with UN agencies (Coenen et al., 2020).

2. Establishing a dependency on China

Since the end of the Cold War, China has extended its network of international influence and surpassed Western countries in terms of its capacity to influence several countries (Atlantic Council, 2021). Measured using data on trade, humanitarian aid, arms sales, the diplomatic network, partnerships within international bodies, free trade agreements and military alliances, the Chinese bilateral influence indicator highlights China's undeniable rise in power on the international stage.

This dominant position on the world market gives China leverage for negotiation or economic coercion, as demonstrated by the disruption of the rare earths market due to new regulatory requirements as part of the technology war with Japan, the United States and the Netherlands in 2023 (BBC, 2023, 2 August). Macro-economically, China is exerting a major influence on prices with the merger of three state-owned rare earths companies (Futur Positif, 7 June 2022). It has also engaged in *limit pricing*: freezing prices to prevent new entry into the market (Ferreira &

Critelli, 2022). **This Chinese attempt at monopoly makes variations in rare earth prices all the more sensitive to geopolitical events** (Li, Meng, Zhang & al, 2023) and variations in demand (Jowitt, 2022).

The dependence on China is all the greater because it controls critical infrastructure around the world, which can potentially be used to boost its own economy or put pressure on other countries. It has also bought up major electricity distributors in Europe on several occasions, facilitated by IMF policies after the 2008 crisis (Mazzucchi, 2018, Marciot & Pèlegri, 2021). These acquisitions, first in Portugal and then in Italy and Greece, have enabled it to steer critical sectors for European countries. In particular, the *State Grid Corporation of China* (SGCC) holds a 25% stake in *Redes Energéticas Nacionais* (REN), making it the majority shareholder (Armando, 2021). **China's decision-making influence can also be seen in the case of infrastructure built by China abroad.** For example, it retains ownership of a dam in Cambodia built by the company Sinohydro until 2050 (Urban, 2018). As a result, **Beijing controls its technology, secures its access to the site and its influence over the state hosting the construction over several decades.** Relying on the need for energy transitions in the face of climate change, the country has already begun to develop its economic power internationally. China is consolidating its influence abroad and establishing a dependence on both developed and developing countries. **The spread of Chinese norms, standards and know-how is establishing this dependence on Beijing over the long term by facilitating economic, industrial and scientific cooperation with the country,** increasing its influence on international ecological transitions. For example, on the scientific front, China set up the *Global Energy Interconnection Research Institute Europe* in Berlin in 2014, bringing Chinese researchers closer to European researchers (Mazzucchi, 2018). Standards are also passed on during the training courses it organises on climate action for its emerging partners (Qi & Dauvergne, 2022) or through technology transfers within the framework of the BRI (Urban, 2018). This expansion of standards is leading to real competition with European standards in Europe and elsewhere, such as in Africa (China Magazine, 21 July 2023).

A QUEST FOR MILITARY POWER

While emergency humanitarian aid was only briefly mentioned in the first Chinese white paper defining foreign aid in 2011¹⁷, the third white paper dating from 2021 devotes almost four pages to it (CFE-DM, 2021), underlining **China's desire for greater operational involvement in humanitarian issues**. Between 2004 and 2019, China ran more than 300 humanitarian aid programmes worldwide, at an annual growth rate of 29.4 % (Johnson, 2021). Since 2000, it has also been **one of the top five providers of foreign humanitarian aid among non-OECD countries** (CFE-DM, 2022). While Chinese humanitarian aid generally takes the form of monetary assistance via multilateral bodies, **China also grants significant financial and military resources bilaterally to countries of strategic interest**¹⁸ (Johnson, 2021). It also gives priority to humanitarian situations that are not politically sensitive, such as natural disasters, food crises and health crises (CFE-DM, 2022).

1. Natural disasters and HADR operations: a tool for influence

As its commitment to the international climate scene, China's humanitarian policy is based on a rhetoric that highlights its responsibility as a major country - particularly on the basis of its position as a permanent member of the UN Security Council (Johnson, 2021). China's growing interest in humanitarian action thus reflects a **desire to appear, on the international stage, as a responsible world leader** (Chen, Calabrese & Willitts-Kings, 2021; Johnson, 2021).

From this point of view, **the growing climate vulnerability of a number of countries, most notably the island developing countries**¹⁹, represents a major opportunity for the expansion of Chinese *soft power* through humanitarian aid. The Pacific region, due to its geographical proximity and extreme natural vulnerability, is the focus of particular strategic expansion efforts through humanitarian aid, as demonstrated for example by the launch in December 2021 of the Emergency Supplies Reserve between China and the Pacific island countries (Ministry of Foreign Affairs of the People's Republic of China, 2022). Humanitarian aid has enabled China to consolidate its bilateral relations with Papua New Guinea, the Solomon Islands, Fiji and Micronesia, which were the first beneficiaries in 2020 (Lowy Institute, 2023). China's humanitarian influence can also be seen in other regions of the world, where the economy and politics are very fragile, and where there is a high degree of natural and/or climatic vulnerability. **The positive perception of China's 'mask and vaccine diplomacy' during the Covid-19 pandemic by small island developing states in the Caribbean** is a case in point

¹⁷ China has published three white papers defining its approach to foreign aid: in 2011, 2014 and 2021.

¹⁸ For example, China has provided humanitarian aid during the ongoing conflict in Yemen, not least to maintain good relations with Saudi Arabia.

¹⁹ It is estimated that the Chinese government donated \$1.9 million to small island developing states in response to COVID-19 (Moroney & Tidwell, 2021; Chinese Ministry of Foreign Affairs, 2020).

(Constant, 2021). Of the five permanent members of the United Nations Security Council (UNSC), China was by far the first to send medical aid to the islands of the region, and was very favourably received, even by states that traditionally support Taiwan, such as Haiti²⁰. This highlighted its ability to "deploy an international assistance system" that was both responsible and supportive (Constant, 2021). More generally, this shows **that the vulnerability of countries to natural disasters is a fundamental opportunity for the development of humanitarian influence, which will become an increasingly important vector of influence as climatic conditions worsen**. This proactive approach to humanitarian aid and the Global Development Initiative (GDI)²¹, in which green development and climate change are among the main areas of action (PRC MOFA, 2022), are particularly well received in the Indo-Pacific and developing countries. China is capitalising on the resentment that some of these countries have towards the United States and Europe, which are seen as devoting too many resources to the war in Ukraine to the detriment of their development needs (Huang, 2023). Conversely, China is **positioning itself as a leading power in the humanitarian and development fields**.

2. Natural disasters and HADR operations: a tool of military power

While the HADR (*Humanitarian Assistance and Disaster Response*) missions²², like the Belt and Road Initiative, are a vehicle for broadening and strengthening China's diplomatic relations, they are also a vehicle for extending its military power (CFE-DM, 2022). In fact, the management of aid, whether in terms of decision-making, coordination or logistics, is carried out at the level of the Chinese state and depends directly on its army: the People's Liberation Army (PLA). Since 2011, the PLA has expanded its network of HADR exchange partners, in particular by organising bilateral exercises with Australia, Cambodia, Germany, India, Malaysia and New Zealand (Johnson, 2021). Another example is the signing of a security agreement between China and the Solomon Islands, with HADR as one of the main areas of cooperation (*Les Échos*, 2022, 20 April). **This agreement will enable the PLA to build up its capabilities through cooperation, as well as justifying its presence in the Solomon Islands by the possibility of its troops intervening in the event of a natural disaster.**

²⁰ In the spring of 2020, Chinese aircraft were the first to land at Port-au-Prince airport to deliver emergency medical equipment, as well as experts in health crises (Constant, 2021).

²¹ Announced by Xi Jinping at the United Nations General Assembly, the GDI aims to achieve the 17 sustainable development goals by 2030 through international cooperation. The following year, 32 concrete actions were presented and 68 countries joined the Group of Friends of the GDI at the UN, including the 10 countries that make up ASEAN (United nations, n.d.).

²² Humanitarian aid and response to natural disasters.

Climate disasters can therefore be an opportunity for China to deploy its armed forces on foreign territories, test its operational skills, develop new capabilities in cooperation with other armies, conduct intelligence operations (Southerland, 2019), or even establish a physical presence on foreign territories. For example, since 2016, the PLA has been taking part in Indonesia's KOMODO military exercises, which focus on disaster relief and humanitarian operations and involve 35 countries working together (Zhen, 2023 ; Borneo News, 2016). In the future, **such interventions could therefore represent an opportunity for China to enhance the skills of its armed forces, by systematically including them in training as well as in HADR operations. China's rise as a HADR power is also an opportunity to occupy claimed territories, such as Taiwan.** The intensification of meteorological and climatic hazards on the territory, particularly typhoons, could eventually justify Chinese intervention, and enable it to reassert its claim to sovereignty over Taiwan - as it did in 1999 when it demanded that the UN and assisting countries obtain its permission before providing aid after the *Chi Chi* earthquake (CFE-CDM, 2021). **Climate change thus presents a real opportunity for China's territorial claims, establishing itself as a humanitarian power of the first order, and being able to justify the deployment of its troops in claimed territories on the grounds of humanitarian aid and disaster relief.**

China can also hinder the intervention of other powers. In 2015, following the earthquake in Nepal, China refused to provide multilateral coordination through the Multinational Military Coordination Centre. The PLA also refused other foreign military actors access to its area of operations, effectively treating its area of operation as "sovereign territory" (Southerland, 2019). This **strategy of humanitarian obstruction** can be further illustrated by the delay of aid to Taiwan after the 1999 earthquake, or the vetoing of peacekeeping missions in Macedonia and Guatemala because of diplomatic relations with Taiwan, despite their critical need for humanitarian aid. More recently, during the RIMPAC exercise in 2014, China refused to participate in a Japanese-led HADR component of the exercise.

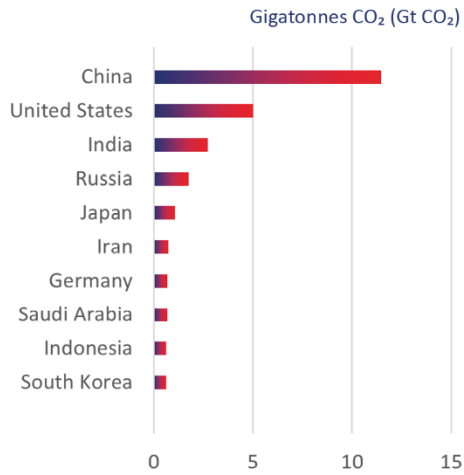
In this sense, **China's involvement in HADR missions is conditioned by its political and geostrategic interests**, as it finds it difficult to dissociate humanitarian issues from geostrategic dynamics of influence and power. **The prioritisation of these interests in the context of disaster relief can affect the effectiveness of HADR operations, the quality of the relief provided, and even hinder aid to populations in favour of interests of influence and/or power.** In this context, climate change could lead to China increasingly exploiting the increasingly recurrent context of environmental emergencies.

APPENDICES

1. Infographics: international figures on climate responsibility

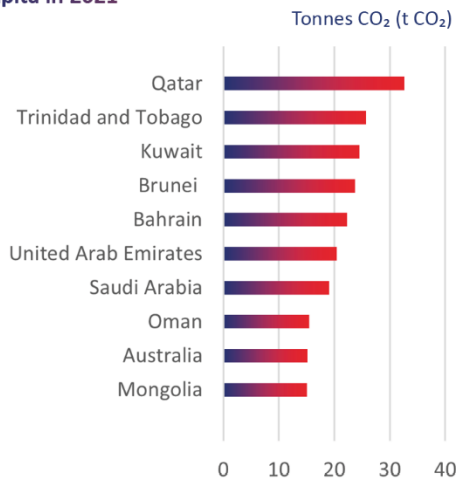
States' responsibility regarding climate change is a significant pillar in strategies of influence on the international stage. This responsibility is primarily measured by national greenhouse gas (GHG) emissions: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and tropospheric ozone (O₃). Due to data availability and timeliness, only CO₂ emissions are considered in the following infographics. Although CO₂ is the primary greenhouse gas, considering other GHGs, especially methane, can significantly alter the numerical understanding of the climate responsibility of states, such as increasing the responsibility of countries like India or Brazil.

a) The 10 largest carbon dioxide emitters in 2021

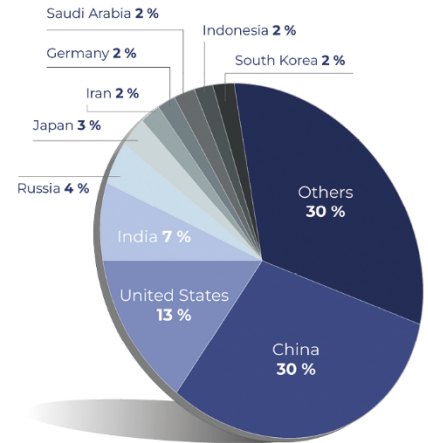


These figures consider carbon dioxide emissions from the use of coal, oil, and gas (combustion and industrial processes), gas flaring, and cement production. Emissions related to land use and forest management are not included. These are territorial emissions and not associated with imports. Based on total carbon dioxide emissions in 2021 (a), China emerges as the world's top emitter, far ahead of the United States, India, Russia, and Japan. Based on per capita carbon dioxide emissions, neither the United States (15.09 t CO₂) nor China (8.12 t CO₂) are among the top ten emitters in 2021. The United States ranks 11th, and China ranks 27th, after Canada (13th), Russia (17th), Japan (24th), Belgium (25th), and Germany (26th). France is 60th with 4.53 t CO₂. The distribution of carbon dioxide emissions, in other words, the climate responsibility of states, can still lead to different interpretations depending on whether one looks at emissions for the year 2021 or cumulative or historical emissions. These reveal the United States as the top historical emitter, just ahead of China and Russia. Moreover, several European countries are at the top of the list: Germany, the United Kingdom, France, and Ukraine.

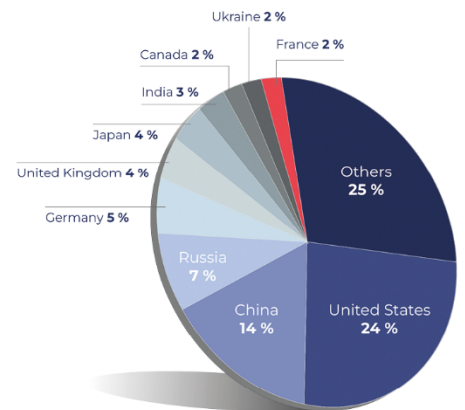
b) The 10 largest carbon dioxide emitters per capita in 2021



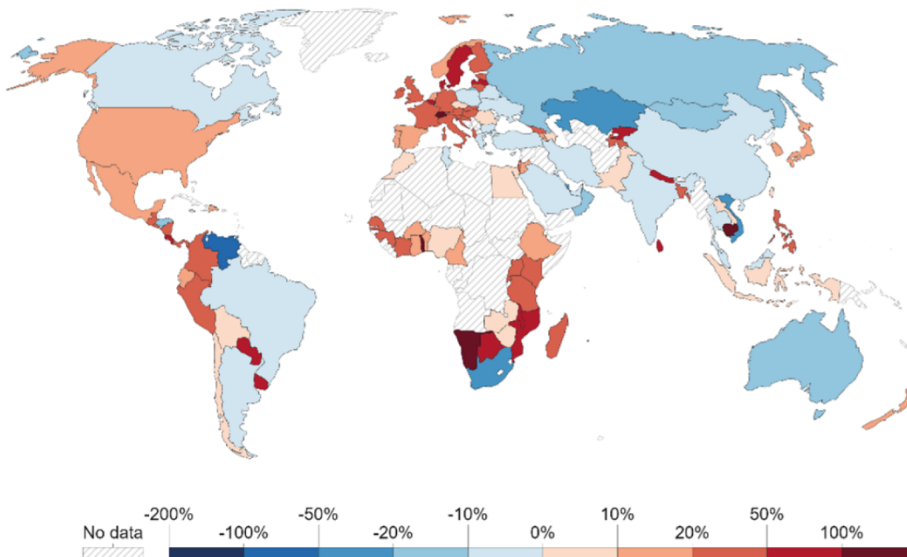
c) Global distribution of carbon dioxide emissions in 2021



d) Distribution of historically cumulative carbon dioxide emissions

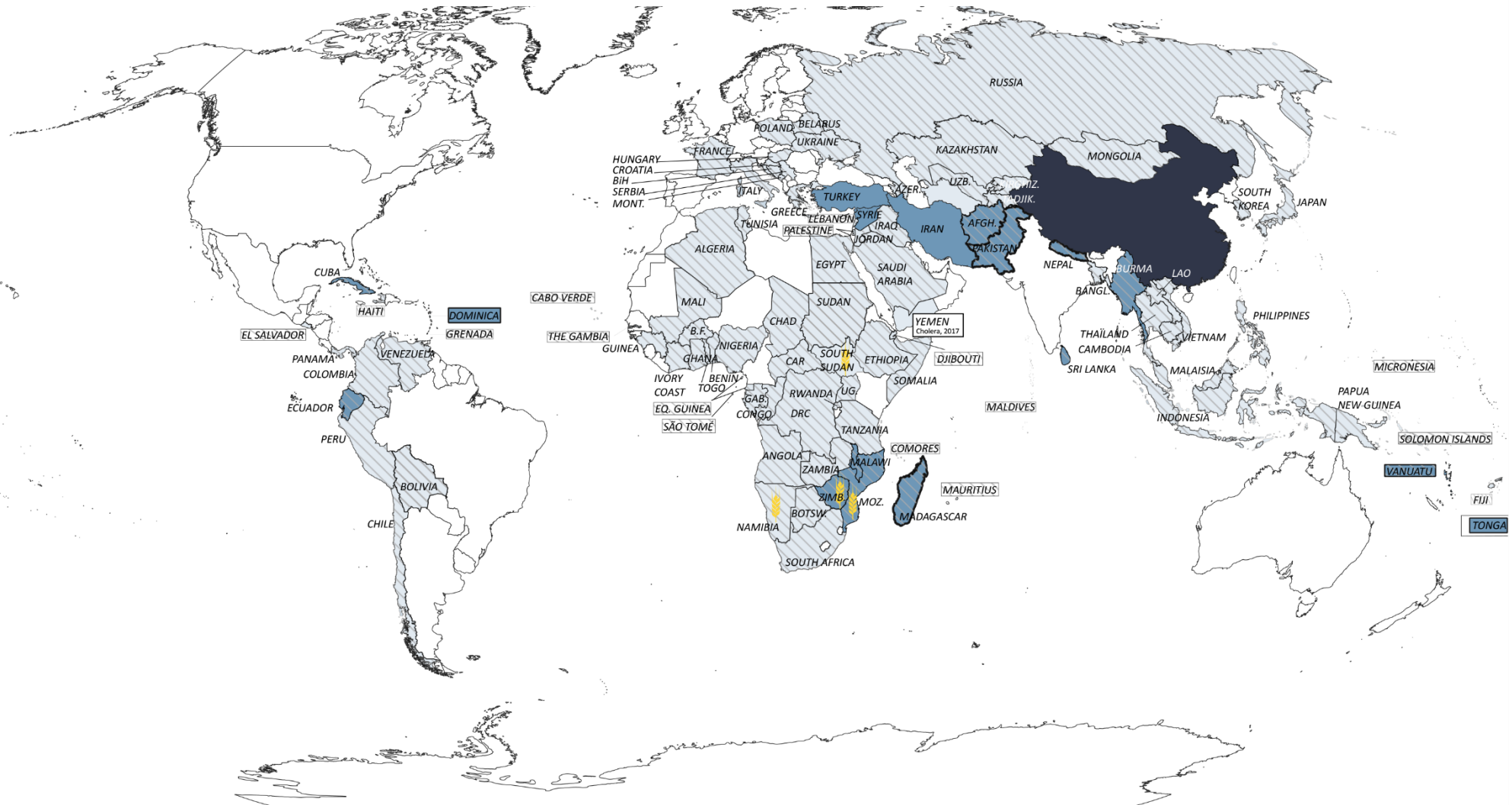


e) Trade-related carbon dioxide emissions map



The countries marked in red on this map (e) are net importers of emissions: they import more CO₂ through commercial trade than they export. The countries marked in blue are net exporters of emissions, meaning they export more CO₂ through commercial trade than they import. On this map, the United States has a value of 10.21 %, which means their net CO₂ import is 10.21 % of their national emissions. Thus, emissions related to consumption in the United States are 10.21 % higher than emissions based on their production. In contrast, China is assigned a value of -8.42 %, meaning that emissions related to its consumption are 8.42 % lower than emissions based on its production. This map highlights an east-west contrast: most Western European countries, the Americas, and many African countries are net importers of emissions, while most Eastern European and Asian countries are net exporters.

2. Map: Chinese HADR power



China's main responses to natural disasters abroad

- Involved countries
- Emergency relief following natural disasters (2015-2023)
- Reconstruction following natural disasters (2015-2023)
- Assistance following the Covid-19 pandemic (2019-2020)
- YEMEN MENA Other aid following an epidemic (2017-2023)
- Food aid and famine relief (2019-2023)

BIBLIOGRAPHY

Scientific papers and other academic publications

- Armando, E. (2021). Comprendre les Routes de la soie de l'énergie. Groupes d'Études géopolitiques, *Green*, 1, 90-97.
- Chen, H. & Springer, C. (2021). Routes de la soie : disparités et inégalités des investissements énergétiques régionaux de la Chine. *Green*, 1, 98-107.
- Chen, Y., Calabrese, L., & Willitts-King, B. (2021). How China's new white paper defines a decade of development coordination. Overseas Development Institute. <https://odi.org/en/insights/how-chinas-new-whitepaper-defines-a-decade-of-development-cooperation/>
- Coenen, J., Bager, S., Meyfroidt, P. et al. (2020). Environmental Governance of China's Belt and Road Initiative. *Environmental Policy and Governance*, 31, 3-17. <https://doi.org/10.1002/eet.1901>
- Dahan, A. (2021). L'évolution de la position chinoise dans les COP et sur la scène géopolitique climatique mondiale. *Green*, 1, 13-18. <https://www.cairn.info/revue--2021-1-page-13.htm>.
- Feltman, J. (2020, september). China's expanding influence at the United Nations – and how the United States should react. Brookings. <https://www.brookings.edu/articles/chinas-expanding-influence-at-the-united-nations-and-how-the-united-states-should-react/>
- Constant, F. (2021). La Chine dans les Caraïbes : enjeux géopolitiques et leviers d'influence. *Études caribéennes*, 48.
- Deng, Y. et Yang, G. (2013). Pollution and Protest in China: Environmental Mobilization in Context. *The China Quarterly*, 214, 321-336. doi:10.1017/S0305741013000659
- Ferreira, G. & Critelli, J. (2022). China's Global Monopoly on Rare-Earth Elements. *The US Army War College Quarterly: Parameters*, 52, 1. <https://press.armywarcollege.edu/parameters/vol52/iss1/6/>
- Gemenne, F. (2018). Du paria au leader, du leader au paria : les trajectoires croisées de la Chine et des États-Unis dans les négociations climatiques. *Revue internationale et stratégique*, 109, 85-92.
- Genovese, I (2022, 18 novembre). Environmental reporters face disinformation, threats in China's restrictive political climate. *IJNET*, <https://ijn.net.org/en/story/environmental-reporters-face-disinformation-threats-chinas-restrictive-political-climate>
- Goron, C. & Bolsover, G. (2020) Engagement or control? The impact of the Chinese environmental protection bureaus' burgeoning online presence in local environmental governance. *Journal of Environmental Planning and Management*, 63, 87-108, DOI: 10.1080/09640568.2019.1628716
- Goron, C. (2018, avril). Civilisation écologique et limites politiques du concept chinois de développement durable. *Perspectives Chinoises*. <http://journals.openedition.org/perspectiveschinoises/8887>
- Johnson, C. (2021). The evolution of China's foreign assistance. <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=owG9cXGYIYw%3d&portalid=0>
- Lai, H. (2021, 29 novembre). The evolution of China's climate change policy: international and domestic political economy and a strategy for working with China. *Journal of the British Academy* 9, 69-98. <https://www.thebritishacademy.ac.uk/documents/3587/JBA-9s10-05-Lai.pdf>
- Lasserre, F., Courmont, B. & Mottet, E. (2023, 13 juin). Les nouvelles routes de la soie : une nouvelle forme de coopération multipolaire ? La Chine, la modernisation encadrée d'un territoire global. *Géoconfluences*.
- Li, Z., Meng, Q., Zhang, L. et al. (2023). How do rare earth prices respond to economic and geopolitical factors?. *Resources Policy*, 85.
- Maréchal, J. (2021). La realpolitik climatique chinoise. *Green*, 1, 23-30.
- Mazzucchi, N. (2018). La Chine et les réseaux électriques européens : stratégie et enjeux géoéconomiques. Fondation pour la Recherche Stratégique, note n°16. <https://frstrategie.org/publications/notes/chine-reseaux-electriques-europeens-strategie-enjeux-geoekonomiques-2018>
- Moyer, J. D. et al. (2021). China-US Competition – Measuring Global Influence. *Atlantic Council*. <https://www.atlanticcouncil.org/wp-content/uploads/2021/06/China-US-Competition-Report-2021.pdf>
- Pèlerin, C., Marciot, H. (2021). La Chine aux portes du réseau électrique européen. Groupe d'Études géopolitiques, *Green*, 1, 108-112.
- Philippe, B. (2022, 17 novembre). Aide Publique au Développement : pourquoi la France verse de l'argent à la Chine ? *Europe 1*. <https://www.europe1.fr/international/aide-publique-au-developpement-pourquoi-la-france-verse-de-largent-a-la-chine-4148174.amp>
- Qi, J.J. & Dauvergne, P. (2022). China's rising influence on climate governance: Forging a path for the global South. *Global Environmental Change*, 73. <https://doi.org/10.1016/j.gloenvcha.2022.102484>
- Sikorsky, E. (2023, 20 juin). The Geopolitics of Climate Change: China and the United States at the UN Security Council. *Climate and Security*. <https://climateandsecurity.org/2023/06/the-geopolitics-of-climate-change-china-and-the-united-states-at-the-un-security-council/>

- Standaert, M (2017, 2 november). As It Looks to Go Green, China Keeps a Tight Lid on Dissent. *Yale Environment* 360, <https://e360.yale.edu/features/as-it-looks-to-go-green-china-keeps-a-tight-lid-on-dissent>
- Stapczynski, S. (2023, 3 july). China's Gas Buying Spree Is About More Than Just Energy Security. *Bloomberg*. <https://www.bloomberg.com/news/newsletters/2023-07-03/china-s-gas-buying-spree-is-about-more-than-just-energy-security?srnd=industries-energy>
- Tu, Kevin. (2022). La diplomatie climatique sino-américaine. *Politique étrangère*, 87, 1. <https://www.ifri.org/fr/publications/politique-etrangere/articles-de-politique-etrangere/diplomatie-climatique-sino>
- Urban, F. (2018). China's rise: Challenging the North-South technology transfer paradigm for climate change mitigation and low carbon energy. *Energy Policy*, 113, 320-330. <https://doi.org/10.1016/j.enpol.2017.11.007>
- US-China Institute (2016, 29 march), Let's Talk About Smog: Censoring Environmental Issues In China. University of South California. <https://china.usc.edu/lets-talk-about-smog-censoring-environmental-issues-china>
- Wu, F. (2013). China's Pragmatic Tactics in International Climate Change Negotiations: Reserving Principles with Compromise. *Asian Survey* 53, 4, 778–800. <https://doi.org/10.1525/as.2013.53.4.778>.
- Wunderlich, J. (2020). Positioning as normative actors: China and the EU in climate change negotiations. *Journal of Common Market Studies*, 58, 1107-1123. <https://doi.org/10.1111/jcms.13019>

Reports

- Annie Lab Team, Yin, Y. & Romero, P. (2023). *Special report: Narratives that drive climate misinformation in China*. <https://annielab.org/2023/05/30/special-report-narratives-that-drive-climate-misinformation-in-china/>
- Bjørkum, I (2005, december). *China in the International Politics of Climate Change*. The Fridtjof Nansen Institute.
- Center for Excellence in Disaster Management & Humanitarian Assistance (CFE-DM). (2021). HA/DR Implications in the Era of Great Power Competition. *Liaison*. 13, 1.
- Global Wind Energy Council. (2023). *Global Wind Report 2023*.
- Center for Excellence in Disaster Management & Humanitarian Assistance (CFE-DM) (2022). *People's Liberation Army's HADR Operations in Oceania*.
- Global Energy Interconnection Development and Cooperation Organization, GEIDCO, Research Center for Sustainable Development, RCSD. (n.d.). *Global Energy Interconnection: An Innovative Global Solution for Implementing Paris Agreement*. https://unfccc.int/sites/default/files/resource/121_Global%20Energy%20Interconnection%20An%20Innovative%20Global%20Solution%20for%20Implementing%20Paris%20Agreement_GEIDCO_RCSD.pdf
- Huang T, (2023, 21 february). *Why Is China's Global Development Initiative Well Received in Southeast Asia?* ISEAS Yusof Ishak Institute. https://www.iseas.edu.sg/wp-content/uploads/2023/01/ISEAS_Perspective_2023_9.pdf
- International Energy Agency. (2022, a). *Securing Clean Energy Technology Supply Chains*. IAE Technology Report. <https://iea.blob.core.windows.net/assets/0fe16228-521a-43d9-8da6-bbf08cc9f2b4/SecuringCleanEnergyTechnologySupplyChains.pdf>
- International Energy Agency. (2022, b). *Global Supply Chains of EV Batteries*. IAE Technology Report. <https://www.iea.org/reports/global-supply-chains-of-ev-batteries>
- Jowitt, S.M. (2022). *Mineral economics of the rare-earth elements*. MRS Bulletin 47, 276–282. <https://doi.org/10.1557/s43577-022-00289-3>
- Ministry of Foreign Affairs of the People's Republic of China (2022). *Fact sheet: Cooperation between China and Pacific Island Countries*. https://www.fmprc.gov.cn/mfa_eng/wjdt_665385/2649_665393/202205/t20220524_10691917.html
- Ministry of Economy, Trade and Industry, METI (2021, 13 april). *Basic policy on handling of the ALPS treated water*. https://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/202104_bp_briefing.pdf
- OCDE. (2022). *Climate Finance and the USD 100 Billion Goal*. <https://www.oecd.org/climate-change/finance-usd-100-billion-goal/>
- Southerland, M. (2019), *The Chinese military's role in overseas humanitarian assistance and disaster relief : contributions and concerns*. US –China Economic and Security Review Commission. [https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report_The%20China\[...\].humanitarian%20Assistance%20and%20Disaster%20Relief_7.11.19.pdf](https://www.uscc.gov/sites/default/files/Research/USCC%20Staff%20Report_The%20China[...].humanitarian%20Assistance%20and%20Disaster%20Relief_7.11.19.pdf)
- The transition institute 1.5. (2022). *The organization of Chinese climate diplomacy*. https://the-transition-institute.minesparis.psl.eu/wp-content/uploads/2022/11/TTI.5_Explanatory_4.pdf
- Tsang, B., et al. (2023). *Follow the money : Chinese climate-related finance to the global south*. E3G. <https://www.e3g.org/wp-content/uploads/E3G-Briefing-Follow-the-Money-Chinese-climate-related-finance-to-the-Global-South.pdf>

- U.S. Geological Survey, USGS. (2023). *Rare earths Statistics and Information*. <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-rare-earths.pdf>
- U.S. Geological Survey, USGS. (2023). *Mineral Commodity Summaries 2023*. <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023.pdf>

News, Press and Magazines

- Aguesse, L. (2023, 10 june). Catastrophes naturelles, hydrocarbures... Pourquoi la Chine entame-t-elle le forage d'un trou de 10 km ? *Le Parisien*. <https://www.leparisien.fr/sciences/catastrophes-naturelles-hydrocarbures-pourquoi-la-chine-entame-t-elle-le-forage-dun-trou-de-10-km-10-06-2023-EN4I4DUOYZB2XF2E5XEUGXA5HU.php>
- Embassy of the People's Republic of China in Belgium. (2021, 2 september). Han Zheng meets the US President's Special Climate Envoy John Kerry via video. http://be.china-embassy.gov.cn/fra/zxxx/202109/t20210904_8967588.htm
- Embassy of the People's Republic of China in France. (2023, 10 august). http://fr.china-embassy.gov.cn/fra/zfzj/202308/t20230810_11125289.htm#:~:text=On%20peut%20constater%20deux%20types,et%20des%20subventions%20d'achat
- Askary, H. (2022, 4 march). China Invites the U.S. To Join the Belt and Road Initiative. *Brixsweden*. <https://www.brixsweden.org/china-invites-the-u-s-to-join-the-belt-and-road-initiative/>
- BBC. (2023, 2 août). Gallium and germanium: What China's new move in microchip war means for world. *BBC News*. <https://www.bbc.com/news/business-66118831>
- Bloomberg News. (2023, 2 july). China Is Buying Gas Like There's Still an Energy Crisis. <https://www.bloomberg.com/news/articles/2023-07-02/china-is-buying-natural-gas-like-there-s-still-an-energy-crisis?srnd=industries-energy>
- Borneo news, (2016). Komodo exercise 35 Negara Hebohkan Sumatera Barat <https://www.borneonews.co.id/berita/30695-komodo-exercise-35-negara-hebohkan-sumatera-barat>
- Chamberlain, G. (2010, 24 january). Climate change: Chinese adviser calls for open mind on cause. *The Guardian*. <https://www.theguardian.com/environment/2010/jan/24/china-climate-change-adviser>
- *Chine Magazine*. (2023, 21 july). " Je ne partage pas l'idée selon laquelle les sociétés minières chinoises pilleraient les États Africains ». Interview de Mohamed Lamine Sidibe.
- Cossardeaux, J. (2021, 3 november). Climat : États-Unis, Chine et Russie règlent leurs comptes à la COP26. *Les Échos*. <https://www.lesechos.fr/monde/enjeux-internationaux/climat-etats-unis-chine-et-russie-reglent-leurs-comptes-a-la-cop-26-1360791>
- *Courrier International*. (2023, 30 march). Pourquoi la Chine n'aime pas être qualifiée de « pays développé » par Washington. https://www.courrierinternational.com/article/geopolitique-pourquoi-la-chine-n-aime-pas-etre-qualifiee-de-pays-developpe-par-washington?at_campaign=partage_article_app&at_medium=android
- *Courrier International*. (2022, 4 september). Infographie. 425 « bombes carbone » prêtes à exploser le climat. <https://www.courrierinternational.com/grand-format/infographie-425-bombes-carbone-prettes-a-exploser-le-climat#:~:text=Avec%20141%20projets%20d'extraction,bombes%20climatiques%E2%80%9D%20sur%20son%20territoire.&text=Cette%20infographie%20est%20issue%20de,kiosque%20depuis%20le%2010%20ao%C3%BBT>
- Dangwal, A. (2022, 12 june). China's "Path-Breaking" Plan: Will Launch 1st-Ever, Space-Based 'Solar Power Station' That Will Transmit Electricity To Earth. *Eurasian Times Desk*. <https://eurasianimes.com/chinas-path-breaking-plan-to-launch-1st-ever-space-based-solar-power-station/>
- Davidson, H. (2021, 16 august). 'You follow the government's agenda': China's climate activists walk a tightrope. *The Guardian*. <https://www.theguardian.com/world/2021/aug/16/you-follow-the-governments-agenda-chinas-climate-activists-walk-a-tightrope>
- Embassy of the People's Republic of China in the Kingdom of Tonga (2023). Statement on the Japanese Government's start of releasing Fukushima nuclear contaminated water into the ocean. http://to.china-embassy.gov.cn/eng/sgxw/202308/t20230825_11132680.htm
- *Eurasian Times Desk*. (2022, 23 mai). Artificial Sun: China Claims Designing World's 1st Power Plant That Can Convert Nuclear Fusion Energy Into Electricity. <https://eurasianimes.com/artificial-sun-china-claims-designing-worlds-1st-power-plant/>
- Fouquet, C. (2021, 14 juin). La marche forcée de la Chine en faveur du nucléaire. *Les Échos*. <https://www.lesechos.fr/industrie-services/energie-environnement/avec-le-nucleaire-et-lepr-de-taishan-pekine-veut-assurer-sa-transition-ecologique-1323431>
- *Futur Positif*. (2022, 7 juin). China Rare Earth Group face à la hausse des prix. <https://futurpositif.fr/2022/06/07/terres-rares-china-rare-earth->

- [group/#:~:text=Depuis%20la%20cr%C3%A9ation%20par%20P%C3%A9kin%20du%20conglom%C3%A9rat%20China,repr%C3%A9sente%20un%20risque%20C3%A0%20long%20terme%20pour%20l'E2%80%99industrie.](#)
- *Global Times*. (2020, 9 may). Thunberg mocked as 'double-standard environmentalist,' 'puppet of Western politicians' for targeting China on annual emissions. <https://www.globaltimes.cn/page/202105/1222988.shtml>
 - Grove, C. (2023, 23 july). How China Manipulates the Rare Earth Market to its Advantage. *Rockstone research*. <https://rockstone-research.com/index.php/en/news/6146-How-China-Manipulates-the-Rare-Earth-Market-to-its-Advantage>
 - Iowa State University. (2016, 3 march). Media-driven attitudes about 'Made in China' label affect product and country. <https://www.news.iastate.edu/news/2016/03/03/madeinchina>
 - Jiangtao, S. (2023, 25 juillet). John Kerry's China trip has again exposed the limits of climate diplomacy. *South China Morning Post*. https://www.scmp.com/comment/article/3228845/john-kerrys-china-trip-has-again-exposed-limits-climate-diplomacymodule=perpetual_scroll_0&pctype=article&campaign=3228845
 - Klink, T. (2008). The Role of Environmental NGOs: From China to the Netherlands. *Macalester International*. https://digitalcommons.macalester.edu/macintl/vol20/iss1/11/#xd_co_f=MjhlM2Y0ODhkODdkZjU5Y2FkZjE2Nzc1MDkyOTYxOTg=~
 - *Le Monde*. (2021, 28 october). Climat : la Chine dépose, sans convaincre, ses nouveaux engagements avant la COP26. https://www.lemonde.fr/international/article/2021/10/28/climat-la-chine-depose-sans-convaincre-ses-nouveaux-engagements-avant-la-cop26_6100257_3210.html
 - *Les Échos*. (2022, 20 april). Les îles Salomon défendent la signature d'un pacte de sécurité avec la Chine. <https://www.lesechos.fr/monde/asie-pacifique/les-iles-salomon-defendent-la-signature-dun-pacte-de-securite-avec-la-chine-1401640#:~:text=La%20Chine%20et%20les%20C3%8Eles,de%20policiers%20et%20navires%20chinois.>
 - Lewis, L (2023, 13 september). Pacific nations 'acting to stay in line with China' over Fukushima wastewater issue - analyst. *Radio New Zealand*. <https://www.rnz.co.nz/international/pacific-news/497884/pacific-nations-acting-to-stay-in-line-with-china-over-fukushima-wastewater-issue-analyst>
 - Liu, J. (2013, 2 january). China's new "middle class" environmental protests. *China Dialogue*. <https://chinadialogue.net/en/cities/5561-china-s-new-middle-class-environmental-protests/>
 - Liu, Y. (2018, 30 july). "Spokesperson of the Ministry of Ecology and Environment: Government Affairs New Media Must be Diligent". [生态环境部发言人刘友宾：政务新媒体要勤政不能懒政]. *China Environment*. <http://www.nbd.com.cn/articles/2018-07-30/1239896.html>
 - Lu, C. (2023, 13 february). China's Belt and Road to Nowhere. *Foreign Policy*. <https://foreignpolicy.com/2023/02/13/china-belt-and-road-initiative-infrastructure-development-geopolitics/>
 - Mayer, N. (2022, 9 january). Fusion nucléaire : nouveau record pour le tokamak chinois !. *FuturaSciences*. <https://www.futura-sciences.com/sciences/actualites/fusion-fusion-nucleaire-nouveau-record-tokamak-chinois-64846/>
 - Ministry of Foreign Affairs of the People's Republic of China (2022, 25 june). Write a New Chapter of Human Development and Progress- State Councilor and Foreign Minister Wang Yi Talks about President Xi Jinping's Chairing the 14th BRICS Summit and the High-level Dialogue on Global Development. https://www.mfa.gov.cn/eng/zxxx_662805/202206/t20220626_10710185.html
 - Mufson, S (2015, 16 march). This documentary went viral in China. Then it was censored. It won't be forgotten *The Washington Post*, <https://www.washingtonpost.com/news/energy-environment/wp/2015/03/16/this-documentary-went-viral-in-china-then-it-was-censored-it-wont-be-forgotten/>
 - Murtaugh, D. (2023, 7 july). Coal's No Stranded Asset. It's a Security Blanket. *Bloomberg News*. <https://www.bloomberg.com/news/newsletters/2023-07-07/coal-s-no-stranded-asset-in-china-it-s-a-security-blanket>
 - Puna, H. (2023). Statement by the Pacific Islands Forum Secretary General Henry Puna On The Fukushima Treated Nuclear Wastewater. Pacific Islands Forum.
 - Reuters & Lo, J. (2023, 24 august). US aims to limit loss and damage fund. *Climate Change News*. <https://www.climatechangenews.com/2023/08/24/usa-loss-and-damage/>
 - Xu, M. (2023, 16 february). China solar power capacity could post record growth in 2023. *Reuters*. <https://www.reuters.com/world/china/china-solar-power-capacity-could-post-record-growth-2023-2023-02-16/>
 - Zhe, G.(2018, 16 november). Highways, schools and medical aid: How China is helping Papua New Guinea's development. <https://news.cgtn.com/news/3d3d514f3159544e30457a6333566d54/index.html>
 - Zhen, L. (2023, 10 june). Chinese and US presence in Komodo Navy Exercise showed 'support for Indonesia', not each other. *South China Morning Post*. <https://www.scmp.com/news/china/military/article/3223583/china-and-us-presence-komodo-navy-exercise-showed-support-indonesia-not-each-other>

Web pages

- Belt and Road Initiative (BRI) Policies. <https://green-bri.org/bri-policies/#:~:text=05%2F14%2F2017%20The%20Belt%20and%20Road%20Ecological%20and%20Environmental,areas%2C%20including%20%E2%80%9CStudy%20on%20Green%20Investment%20and%20Financing%E2%80%9D>
- Energy Foundation. (2022, 5 september). China's 14th Five-Year Plans on Renewable Energy Development and Modern Energy System. <https://www.efchina.org/Blog-en/blog-20220905-en#:~:text=The%20plan%20targets%20a%2050,China's%20incremental%20electricity%20and%20energy>
- Forum on China-Africa cooperation. (2021, 12 march). Declaration on China-Africa cooperation on combating climate change. http://www.focac.org/fra/zywx_2/zywj/202112/t20211203_10461785.htm
- Lowy Institute. Pacific aid map. <https://pacificaidmap.lowyinstitute.org>
- Nashidil Rouiaï. (2018, september). Belt and road initiative (B.R.I.). Géoconfluences. <http://geoconfluences.ens-lyon.fr/glossaire/routes-de-la-soie>
- United Nations (s. d.). Global Development Initiative-Building on 2030 SDGs for Stronger, Greener and Healthier Global Development. United Nations. <https://sdgs.un.org/partnerships/global-development-initiative-building-2030-sdgs-stronger-greener-and-healthier-global>
- The State Council Information Office of the People's Republic of China. (2021). White Paper on Responding to Climate Change: China's Policies and Actions. http://english.scio.gov.cn/whitepapers/2021-10/27/content_77836502.htm

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